Page 1 Page 3 1 Wednesday, 12 December 2018 1 Against that background, Chairman and Professor, if 2 I could call MTR's last witness, Prof Ma. 2 (10.01 am)3 PROF MA SI HANG, FREDERICK (sworn) 3 MR BOULDING: Good morning, Chairman. Good morning, 4 Professor. 4 Examination-in-chief by MR BOULDING 5 Before I call MTR's last witness, Prof Ma, who is 5 Q. You've given your full name to the Commission, and we 6 6 sitting in the witness box now, counsel to the Inquiry know that you're the non-executive chairman of MTR. You 7 has suggested that it might be a good idea if I update 7 have produced one witness statement for the Commission's 8 8 the Commission on the issue of opening up. assistance, and I hope we will find the first page at 9 CHAIRMAN: Thank you. 9 Professor, do I there see the first page of your 10 MR BOULDING: As you will have seen, it has started, but in 10 11 view of the tight time schedule of the Commission of 11 witness statement? A. Yes. 12 12 Inquiry, government has requested, and MTR has agreed, 13 13 Q. If we go on to page B114, I hope we will find your to examine the opening-up work programme to identify 14 14 signature. Is that your signature under the date of possible acceleration. Government wants to see whether 15 or not MTR can reduce the scheduled period of 16 weeks 15 13 September, Professor? 16 down to 12 weeks. 16 A. Yes, Mr Boulding. 17 I'm told, and I inform you, that by increasing the 17 Q. Thank you very much. 18 number of concurrent working teams, it may be possible 18 I understand that you'd like to make a small 19 correction to that statement. I hope we find the 19 to accelerate the work and compress the work duration 20 20 corrigendum at bundle B, page 114.1. Aha, good. Is into 12 weeks. 21 However, and as you will probably realise, there are 21 that the correction you would like to make, Professor? 22 major uncertainties and risks in this accelerated 22 A. Yes, sir. 23 23 programme, because of course the work has only just Q. Subject to that correction, are the contents of that 24 24 statement true to the best of your knowledge and belief? started and the programme includes basic assumptions 25 which have not yet been verified, including the speed of 25 A. Absolutely, sir. Page 2 Page 4 the work and the extent of the practical difficulties 1 1 Q. Excellent. Now, Professor, what's going to happen now 2 that might be encountered. 2 is that you will almost certainly be asked a few 3 3 As a result, whilst the MTR cannot commit to the questions by my learned friend Mr Pennicott for the 4 12-week duration, I am instructed to say that MTR will 4 Commission of Inquiry. There are various lawyers 5 use its very best endeavours to accelerate the work and 5 representing other interested parties in the room, and 6 to update the Commission with all interim results by the 6 they have the option of asking you questions. The 7 end of January 2019. 7 Chairman and the professor can ask you questions at any 8 With this in mind, MTR will prioritise the 8 time they consider appropriate. And it may be the case 9 opening-up work of the platform on the East West 9 that I ask you a few questions at the end of your 10 Corridor, with the intention to complete as much of the 10 evidence. Do you understand? 11 EWL platform work as is reasonably practicable by the 11 A. I understand. Thank you. 12 end of January 2019. 12 MR BOULDING: Splendid. Please sit there. 13 Obviously, after the opening-up work of the first 13 Examination by MR PENNICOTT 14 few locations has taken place, there will be a better 14 MR PENNICOTT: Good morning, Prof Ma. 15 understanding of the speed of the work and the extent of 15 A. Good morning, Mr Pennicott. 16 the practical difficulties, but of course, as always, Q. Can I first of all say thank you very much for coming 16 17 MTR will update the accelerated programme to allow 17 along to give evidence to the Commission this morning. 18 a better estimate of the work duration and keep you 18 A. Thank you. 19 informed, sir. 19 Q. As Mr Boulding has indicated, I get to ask you a few 20 I hope that's helpful. As always, MTR are here to 20 questions first, and I don't think I'm going to be 21 provide all assistance it possibly can to the 21 terribly long, but I just have a few matters I want to 22 Commission. 22 discuss with you. 23 CHAIRMAN: Thank you, Mr Boulding. Thank you very much 23 Prof Ma, I understand that way back in time you 24 indeed. That's welcome news. Thank you. 24 were -- at the start of your career, you were in the MR BOULDING: I thought you might say that. 25 banking and finance industry; is that right?

Page 5 Page 7 1 A. Indeed. 1 submits reports to the board. But, other than the 2 2 Q. And you worked for Chase Manhattan Bank back in the submission of reports, I get to meet him every month, at 3 3 1970s, both in Hong Kong and in New York? least. But we regularly, as you can see from my statement, talk to each other through WhatsApp or phone, 4 A. 1973, as a matter of record. 4 5 Q. You also worked for PCCW for a number of years, as 5 you know, so that we know what is going on in the I understand it? 6 6 company. 7 A. Only one year. 7 As you correctly said, we have so many projects 8 Q. Against all that financial background, in 2002 to 2007 8 going on, so I obviously keep an eye on what is going 9 you were the Secretary for Financial Services and the 9 on. Until this SCL Hung Hom case really get reported in 10 Treasury in the Hong Kong government? 10 the media, you know, we just get regular reports, and as 11 11 if it is one of the projects that has been going well. 12 12 Q. It was during that period I think you had your first All our projects, particularly the one you mention, 13 involvement with the MTR, when you were a non-executive 13 Mr Pennicott, have been completed successfully, 14 director whilst you were the Secretary? 14 including the Express Rail, which was opened in 15 A. Yes. 15 September. We have successfully completed the 16 Q. Then, in 2007-2008, you were the Secretary for Commerce 16 Ho Man Tin Extension and also the South Island Line. 17 and Economic Development of the government? 17 Those three projects were completed during my tenure as 18 A. Indeed. 18 chairman. Q. Then a little bit of time out, which we don't need to 19 19 So SCL, just like any project, gets our attention, 20 consider, but then, as I understand it, in 2013 you 20 but we have a committee called the CWC, capital works 21 became an independent non-executive director of MTR? 21 committee, that overlooks the cost as well as the timing 22 A. Correct. 22 of the project. This was created following the 2014 IBC 23 23 Q. As we know, on 1 January 2016, you became the chairman? which the Chairman and Professor of aware of and 24 familiar with. Back in 2014, we created, as a result of 24 A. Non-executive chairman. 25 Q. Since 2013, when you were the independent non-executive 25 the investigation, CWC, capital works committee, chaired Page 8 director, up until now, effectively, the MTR has been 1 by Dr Allan Wong, and the formation of a risk committee 1 2 involved in a number of substantial projects, including 2 as well to overlook all these risks and projects. For 3 3 the XRL, the South Island Line, the West Island Line, CWC, it is their duty to make sure that projects are 4 the Kwun Tong Line Extension, perhaps other projects 4 completed on time and within the budget. 5 worldwide, as well as what they're doing in Hong Kong, 5 Q. All right. So can I just summarise, then, Prof Ma, up 6 and of course the SCL project, with which we are 6 until this year, the SCL project was no more prominent 7 7 or less prominent than any of the other projects, so far primarily, indeed exclusively, concerned. 8 8 A. (Nodded head). as you were concerned, from your perspective? 9 9 Q. Just taking the SCL project itself, Prof Ma, and leaving A. Absolutely. You know, we pay attention to all projects. 10 10 aside the last six months or so, what part of your Q. Yes. 11 working week might be devoted to the SCL project? 11 A. But I want the Chairman and Professor to realise, as A. Maybe with the permission of the Chairman and the 12 non-executive chairman, there are limitations as to what 12 13 professor, I need to explain a little bit about our 13 I can do and I'm told. 14 14 Q. Yes, indeed. corporate governance. 15 Being the non-executive chairman, I'm not required, 15 A. I have to rely on my colleagues, to a very, very large 16 unlike the chief executive officer, to go to work every 16 extent --17 17 day. That is the beauty of being a non-executive Q. Of course. A. -- about the project itself, and I have to say that I do 18 chairman. However, I have to of course chair the board, 18 19 which meets seven times a year. I have to attend 19 carry out site visits with the CEO, I've done it a few 20 20 subcommittees of which I'm a member. I'm a member of times, and one of them was SCL. 21 the remuneration committee, I'm a member of -- I'm 21 Q. We are not just concerned with SCL. We are more 22 actually the chairman of the corporate responsibility 22 specifically concerned with a contract called 23 23 contract 1112. committee, and I sit on the nomination committee as 24 well. So I do attend meetings on a regular basis. 24 A. Right. 25 I do meet with the CEO on a regular basis. He 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 O. Yes.

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- 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
 - transparency in the company, so I said, "That's a great

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
 - 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.
- Q. Yes, because that was going to be my next question. It 11
- 12 was a perception, but in your view, as I understand your
- 13 last answer, you don't believe it was a true and
 - 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.
 - Check the checkers. The government has appointed

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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:

"At the meeting I remarked that a perception about a lack of transparency in terms of both internal reporting and external reporting to the government had

18 become a matter of public concern."

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?
- A. Well, I think at that time there was a lot of media

- 1 outside consultant to check our work.
- 2 O. Yes.
- 3 A. So to me, our reporting system, at least at that
 - 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
- 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.

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

number is correct, and is it supported by documentary 1

- 2 evidence. I still remember Mr Rooney said, "Yes", and
 - 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,
- obviously, as I said, not being involved in the 11
- 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
 - Dr Philco Wong used the word "surprised" yesterday --

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on 15 June this year. You say in paragraph 21 of your

2 statement:

- "In the morning of 15 June [this year], I met with 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: "I was assured by Aidan Rooney that the matters

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

- 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.

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- 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

that is a very important subject. But more importantly, I appreciate that for the general public, they would not know a lot of the technical facts in the report, but they could remember 23,500. That was my point, to ask Mr Rooney if that is correct. I mean, among all -- the report was actually 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

1 A. I meet with Dr Philco Wong from time to time. The

- 2 reason why -- we were originally going to meet at IFC,
 - 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
 - a WhatsApp message, not in an email but in a WhatsApp
 - 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 early morning, because my plane came from North America,
- 17 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
 - message, but he did not link the two together.

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So I showed up at the 14 June meeting, the CWC

meeting held for almost three hours, if I'm not

duty as chairman.

- mistaken, to talk about the report. But it was about
- 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.
- Q. He did, he confirmed it in his statement and he confirmed it when I asked him about it, you will be 14 pleased to hear. All right. Thank you for that,
- 15 Prof Ma.

Can I then turn to a point that you mentioned just a moment ago, that is when you were told that in fact 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 20
- 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?

Page 20 Anyway, I have arrived Hong Kong, so I found out

- 1 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.
- Q. Before he had told you that on 29 July, were you aware 18
- 19 of the time scale and the pressure that the people
 - 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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- 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.
- So I wouldn't know whether two weeks is enough or 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
- or Philco Wong or anybody else, "Look, Chairman, it's
- been a really tough job, we've been put under enormous
- pressure, we're really not happy about the situation but
- we're going ahead anyway" -- nobody ever sort of
- mentioned that to you?
- 19 A. No.
- 20 Q. All right.
- When Dr Wong explained the point about serious time
- pressure and that was the reason that he was putting
- forward for the error, what was your reaction to that
- 24 explanation?
- 25 A. My reaction was, "Do you think that the Commission or

- 1 meeting the Chief Executive mentioned to you that the
- 2 government had lost confidence in the project management
 - 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
- meetings, so I don't know who briefed her.
- 15 Q. You didn't sort of pick up during the meeting any
- 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
- an explanation as to why the government had lost
- 23 confidence?
- 24 A. Having worked in the government for six years, I think
 - government can tolerate people who are not capable, but

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- 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:
- "On 6 August 2018, I met with the Chief Executive as
- scheduled. The Secretary for Transport and Housing,
- 15 Frank Chan was also present."
- 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
- lasted roughly maybe 30-45 minutes.
- 25 Q. Okay. You say in your witness statement that in the

- 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
- whole thing happened, the Chief Executive or for that
- matter the secretaries have never expressed any views
- about our management capability. It was after this
- 14 revelation that the government expressed that they have
- lost confidence. So, I mean, you know, I don't have to
- 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
- 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.

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- 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.

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- 1 the report, particularly after my question to Mr Rooney
- 2 and after Mr Rooney had repeatedly told me that he had
 - 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
 - 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
- Mr TM Lee --16
- 17 O. 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.

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

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- 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.

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- 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
- 20 enormous time pressure? I mean, did you try to, as it

Chief Executive that the report had been prepared under

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

- 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?

- 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
 - director of MTR, was obviously at this board meeting --
 - 24 A. Yes.
 - Q. -- and he had already expressed his views, presumably,

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A. Yes.

A. Yes.

A. Yes.

2018?

A. Yes.

if I may, on B105.

Q. Do you have that; yes?

- 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

But I think members were -- really understand why

government lost confidence, because by then, you know,

- 24 the report, after all this intense preparation, turns
- 25 out to be incorrect, you know.

- Page 30
 - 2 committee, you just mentioned that earlier on, and they
 - 3 also gave you quarterly reports?
- 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
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- 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
- was at that meeting. 16
- 17 A. Which meeting are you referring to?
- Q. With the Chief Executive on 6 August. 18
- 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

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MR TO: Chairman and Commissioner, good morning.

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

Q. In paragraph 4, can I take you down to line 5. You

can I also take you down to line 8, "good corporate

governance practices and procedures", and also can

I take you to paragraph 5 of your witness statement,

Q. In terms of, if you want to call, the troublemaker, the

6 January 2017. Did you see that email?

client, China Technology, the first email basically was

Q. Did you see the email that China Technology sent to the

Q. So you became aware of the incident on roughly 31 May

Transport and Housing Bureau on 15 September?

"corporate governance"; can you see those, Prof Ma?

mentioned about "promoting a culture of openness", and

I am Christopher To, representing China Technology.

Prof Ma, can I take you to your witness statement,

- Q. You also sometimes sort of attended the capital works 1
- 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.
 - Can I take you to your paragraph 11 of your witness
- statement. This is not a criticism, I'm just stating 16
- 17 a fact:

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- "... the CWC comprises seven non-executive
- 19 directors, six of whom are independent non-executive
 - 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,
 - a list of those INEDs, as well as NEDs. Just looking at

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the executives.

A. Of course, yes.

attend the meetings.

Q. I understand.

- 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
- relates to what Mr Lincoln Leong said yesterday about 11
- 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.
- 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
- 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
 - Page 34
- 1 question of Mr Lincoln Leong yesterday.

according to this statement.

that, Prof Ma?

2 A. Yes.

A. I do.

- 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

knew, and the committee has the authority to question

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

A. They are not members of the committee, but they do

Q. Thank you very much. Can I move on, for example in

In paragraph 13, you mention that you became aware

In terms of a person who has basically with openness

and integrity, you conducted a special board meeting on

5 June 2018 to discuss these issues; is that correct?

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

special board meeting was held on June --

Q. The 2nd, a special board meeting was held, and another

A. There were two meetings, one on 2 June, one on 5 June,

Q. Thank you for your correction. What I am going to take

you on to now is the MTRC report, if I may. If you look

at the MTRC report, that's in B1. Do you have a copy of

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

paragraph 13 of your witness statement.

of the situation at the end of May.

- 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
- allegations in China Technology's report that there were 13
- 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
- Leighton and I'll take you to that response. It's 24
 - B3090, if I may.

- 15 Q. He mentioned three lines of defence, which I asked him

- Then on top that he mentioned in paragraph 24
- 21 basically you have the CWC, which you kindly referred to
- - this yesterday -- a "deep dive" into reviews of selected

- risk areas, reviewing the effectiveness of ERM 1 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 --

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- 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. 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

9 (Pages 33 to 36)

Page 37 Page 39 Can I show you to the very last paragraph of the 1 CHAIRMAN: Thank you. 2 letter, and if you look at here, it says: 2 MR TO: Thank you, Prof Ma, on that point. 3 "In concluding, we make the general observation that 3 Now can I refer you to paragraph 18 of your witness 4 a large number of the matters raised today were not 4 statement, Prof Ma. 5 substantiated by any records or contemporaneous notes. 5 A. Yes. 6 No doubt MTR will draw its own conclusions about the 6 Q. In line 5 -- can you see that? -- you said: 7 weight to be given to such bald assertions. Leighton 7 "... I was under the impression ..." 8 and its officers and employees reserve their rights in 8 Who gave you that impression? 9 respect of these matters." 9 A. Throughout the discussion at the CWC, you obviously get 10 10 So, Prof Ma, have you seen this letter? certain impression from my team. That's how I arrived 11 11 at the conclusion. Q. Just by reading this statement, what do you think? Q. Can I take you to B16/14036. If you look down, this 12 12 A. Very legalistic letter. Not being a lawyer --13 13 basically is sent on behalf by Mr Allan Wong about the MR BOULDING: Sir, shouldn't he be shown the whole letter as 14 14 report, and if you go to the middle paragraph, you will 15 opposed to just the last paragraph? 15 see, for example, it says, "there are some 16 CHAIRMAN: Is the question, "What do you make of the last 16 contradictions" -- can you see that? 17 paragraph?" 17 It's line 3, can you see that, line 3, the second 18 MR TO: Yes. 18 paragraph? 19 Prof Ma, what do you make of the last paragraph? 19 A. Yes. 20 A. I can only go by the last paragraph saying that it is 20 Q. "... there are some contradictions and inconsistencies 21 not substantiated. 21 between the recollections of certain individuals." 22 Q. So, being an open person, which you stated earlier on, 22 And after that: 23 23 do you think this is fair? "... without making a judgment as to the underlying 24 24 A. Not knowing the whole situation, it's difficult for me facts, particularly in light of the upcoming Commission 25 25 to make a judgment, to be honest. of Inquiry." Page 38 Page 40 CHAIRMAN: I appreciate the line of questioning. I don't 1 Can you see that? 1 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

Prof Ma did or thought at the material time.

I need say no more about it, Mr Chairman.

CHAIRMAN: Thank you.

Yes, Mr To.

Therefore, I question what the relevance is to what

Prof Ma now thinks of four lines in a very long letter.

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

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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.

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 --

Q. But in this email, it says very clearly that you have to

state the facts. The facts are not stated, in B36 of

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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 ..."

CHAIRMAN: Yes.

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Page 43 Page 41 MR TO: So, in this report, there's not a single thing 1 enforcement agencies. So if someone did something 2 2 mentioned about China Technology, except for "No wrong, legally, of course, you know, we take this 3 information in relation to the interview with China 3 seriously, so by implication we would go to, you know, 4 Technology is included here". 4 all the law enforcement agencies, to report any 5 5 It's not your fault. I'm just making a statement, irregular or unlawful act on the part of anybody. 6 6 that's all. That's common sense, isn't it? 7 CHAIRMAN: I think --7 So the fact I mentioned it -- I still remember at 8 A. Chairman, I don't know how to comment. 8 the stand-up on 22 June, I did mention something like 9 CHAIRMAN: That's right. Perhaps if one puts at the end of 9 that. As a matter of fact, I mentioned the fact that we 10 that statement "would you agree?" 10 would report this sort of situation to law enforcement 11 A. It is difficult because, you know, you mention why 11 agency not only one time but a few times, if I remember 12 certain things were not specified, and as I said I'm not 12 correctly. Because we, you know, as MTRC, of course 13 a member of the CWC, to begin with, I was just 13 have to report any offence to law, to any law 14 an observer in that particular meeting. You know, at 14 enforcement agency, just like when China Technology 15 the committee meeting, all the facts were presented, 15 alleged we have corruption in the site, we report the 16 including China Technology was discussed, I'm sure, if 16 case accordingly. You know, that is very, very logical 17 you look at the minutes of the meeting. 17 and normal. 18 So counsel implies that we just ignored China 18 Q. Thank you, Prof Ma, for that point. 19 Technology; it's not correct. We did discuss it, I'm 19 Can I take you on to maybe my last point. My last 20 20 sure, although I did not -- I cannot recollect what was point relates to the inaccuracies of the report. It is 21 21 discussed. in paragraphs 27 to 29. My learned friend Mr Ian 22 CHAIRMAN: All right. 22 Pennicott took you to paragraph 28. 23 23 MR TO: Prof Ma, you did discuss it. I'm just making So, when you looked at this report, you basically 24 a point that it's not stated here. 24 said, in the middle of 28, you can see in line 8 down, 25 A. I'm sure it was discussed. 25 can you see: Page 42 Page 44 1 Q. That's not a criticism at all. 1 "I was naturally alarmed by [the revelations] ..." 2 2 In terms of -- can I go back to your statement, Okay? So you can see that. What were you alarmed 3 3 R109 about? What went wrong in the report? 4 A. Yes. 4 A. The fact that the report was inaccurate. 5 Q. In paragraph 23 -- can you see that? 5 Q. Inaccurate. So can I take you to what Mr Lincoln Leong 6 A. Yes. 6 said yesterday. It's in page 161 of the transcript. If 7 7 you look at line 20 -- I will just read it very quickly: Q. There was a press statement made; yes? 8 8 "... [the] whole issue of the backdating as well as A. Mm-hmm. 9 9 the retrospective nature of those papers were Q. If you look at the very last sentence, it says: 10 "In this press release, MTRC also made clear that if 10 highlighted in one of, I believe, the crisis management 11 any violation was found, MTRC would take the matter very 11 meetings in August ..." 12 seriously and report it to relevant law enforcement 12 Prof Ma, are you aware or do you know there's 13 13 agencies." backdating and retrospective records been made in the 14 Can I take you to that press release. I mentioned 14 report or other information? 15 Mr Lincoln Leong yesterday. It's B9/7031. 15 A. No. 16 16 MR TO: You're not? Prof Ma, I don't have any further Prof Ma, can you see, in this press release, was 17 17 questions, and thank you for being honest. there any mention of the words "law enforcement 18 agencies" anywhere in this press release? WITNESS: Thank you, counsel. 18 19 A. I don't see those two words that you refer to. 19 MR KHAW: Mr Pennicott has probably stolen our thunder and 20 Q. But if you look at the first paragraph, it says: 20 I believe most of the questions we had intended to 21 "The board takes these matters very seriously." 21 discuss with Mr Ma have been canvassed. We have no 22 From your understanding, the word "seriously", that 22 further questions. 23 means you would report it to the various relevant 23 CHAIRMAN: Thank you very much. 24 authorities? 24 MR CONNOR: No questions for Atkins. Thank you, sir. A. Hong Kong has excellent governance system, including law MR SHIEH: No questions from Leighton.

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1	CHAIRMAN: Thank you.	1	best team to do the job.
2	MR BOULDING: Sir, I have no re-examination for the	2	But moving forward, I think the CWC would like to
3	professor, so unless you have any questions?	3	know, for example, certain aspects, if quality were not
4	Questioning by THE COMMISSIONERS	4	up to standard, then they would like to know.
5	COMMISSIONER HANSFORD: I have one question for Prof Ma.	5	COMMISSIONER HANSFORD: Quality of the works?
6	Prof Ma, I'm interested in the capital works	6	A. Yes. You know, if there were any, for example,
7	committee. My understanding is the CWC was established	7	non-compliance report, NCR, they would like to know; if
8	in 2014, following concerns about the XRL project.	8	certain project had issued NCR, then they need to know.
9	A. Absolutely.	9	In the past, they don't need to know about it. They
10	COMMISSIONER HANSFORD: I understand its focus is primarily	10	assume it would be taken care of by the project team.
11	on reviewing progress of projects from a programme and	11	But from now on, my understanding is the CWC would like
12	cost perspective; is that correct?	12	to know issues of that nature.
13	A. Correct.	13	COMMISSIONER HANSFORD: This will therefore give the board
14	COMMISSIONER HANSFORD: In your witness statement, in	14	more visibility on the quality of the works being
15	paragraph 40(d) of your witness statement, under "Going	15	carried out; is that the purpose?
16	forward", you tell us, helpfully:	16	A. Yes. I should also mention, Chairman and Professor,
17	"the terms of reference of the CWC is now being	17	that, you know, throughout the 39 years of history of
18	revised to enhance its oversight of the quality of the	18	MTR, we have delivered many, many projects to Hong Kong,
19	capital works projects."	19	and all these projects are top-notch in quality. Why
20	Has it previously had a role in overseeing quality,	20	this one failed? This is something of course for the
21	or is that a new role for the CWC?	21	Commission to find out. But I would say that overall
22	A. Professor, Chairman, this is going to be a new role for	22	the quality of our work has been top-notch, you know,
23	the CWC. If you recall, in 2014, when we established	23	recognised by the industry, recognised by the public.
24	the CWC, it's because XRL was facing cost overrun and	24	Even the opening of the XRL recently has been well
25	also project delay, and as a result CWC was established.	25	received.
	Page 46		Page 48
			1 uge 40
1	COMMISSIONER HANSFORD: Yes.	1	So this is just to be safe that we mention about
1 2	A. We have no doubt that the quality of the management team	1 2	So this is just to be safe that we mention about quality. The fact that CWC would focus on the quality
	A. We have no doubt that the quality of the management team in overseeing project management, because even in the		So this is just to be safe that we mention about quality. The fact that CWC would focus on the quality doesn't mean that we see there is a big issue in the
2	A. We have no doubt that the quality of the management team in overseeing project management, because even in the expert report of which, Professor, you were involved	2	So this is just to be safe that we mention about quality. The fact that CWC would focus on the quality doesn't mean that we see there is a big issue in the system; okay? But we want to make absolutely sure that
2 3	A. We have no doubt that the quality of the management team in overseeing project management, because even in the expert report of which, Professor, you were involved COMMISSIONER HANSFORD: Indeed.	2 3	So this is just to be safe that we mention about quality. The fact that CWC would focus on the quality doesn't mean that we see there is a big issue in the system; okay? But we want to make absolutely sure that this sort of issue does not arise in the future.
2 3 4 5 6	 A. We have no doubt that the quality of the management team in overseeing project management, because even in the expert report of which, Professor, you were involved COMMISSIONER HANSFORD: Indeed. A you actually complimented MTR in the PIMS and all 	2 3 4	So this is just to be safe that we mention about quality. The fact that CWC would focus on the quality doesn't mean that we see there is a big issue in the system; okay? But we want to make absolutely sure that this sort of issue does not arise in the future. CHAIRMAN: Can you tell me just the work of the CWC, has
2 3 4 5 6 7	 A. We have no doubt that the quality of the management team in overseeing project management, because even in the expert report of which, Professor, you were involved COMMISSIONER HANSFORD: Indeed. A you actually complimented MTR in the PIMS and all that, if I recall correctly. I don't want to put words 	2 3 4 5	So this is just to be safe that we mention about quality. The fact that CWC would focus on the quality doesn't mean that we see there is a big issue in the system; okay? But we want to make absolutely sure that this sort of issue does not arise in the future. CHAIRMAN: Can you tell me just the work of the CWC, has it been effective, in your mind, and is it important?
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23 A. Yes.

C1106, for detailed design with MTRC?

Q. Thank you. The second is the consultancy agreement for

temporary works contract 1112 with Leighton?

Page 49 Page 51 1 lessons like this, to be honest. Even as non-executive 1 A. That's correct. 2 chairman I learn a lot more from this whole episode than 2 Q. In those roles, you have prepared one witness statement, 3 what I would have known if this doesn't happen. 3 which is in bundle J1/8, which we might have on the 4 But I think, you know, we need to move forward, we 4 screen in front of us, and that begins at page J56. Do 5 need to learn from our painful lessons, because we are 5 you see that witness statement, Mr Blackwood? 6 here to serve Hong Kong for the next 40 years, 6 A. That's my witness statement. 7 400 years, so we need to do better and better for the 7 Q. If you turn to, please, page J77 of that witness 8 community. I truly believe that MTR is a great 8 statement, you will see a signature that appears there. 9 organisation, but there are always room for improvement, 9 Is that your signature, Mr Blackwood? 10 sir. 10 A. That is my signature. 11 CHAIRMAN: Thank you very much. 11 Q. Now, attached to your witness statement, as you may 12 COMMISSIONER HANSFORD: Thank you. 12 recall, there were a number of attachments. If I can 13 MR BOULDING: Thank you very much indeed, Professor. 13 just take you to a number of those. I think they were 14 CHAIRMAN: Thank you, Professor, for coming today. 14 JB-1 to JB-12 inclusive; do you recall that? 15 WITNESS: Thank you, Chairman. Thank you, Professor. Thank 15 A. Yes. 16 you for having me. 16 Q. If you turn to JB-1, I think you'll see that that 17 MR BOULDING: Commissioners, that concludes MTR's factual 17 appears at page J80, and that is your CV? 18 18 A. That is my CV. 19 CHAIRMAN: Shall we have the morning adjournment, 19 Q. If you then turn to page J83, this is the beginning of 20 15 minutes, or do you wish to --20 your attachment JB-2; is that correct? 21 MR PENNICOTT: No, I think this is an opportune moment. 21 A. Yes. 22 CHAIRMAN: Good. Thank you. 22 O. It is here that we see described, amongst other things, 23 (11.23 am) 23 your roles and responsibilities as project director of 24 24 (A short adjournment) team A? 25 (11.43 am) 25 A. That's correct. Page 52 Page 50 MR CONNOR: Good morning, sir. Good morning, Professor. Q. And by "team A" we understand the contract with which 1 2 We have the first witness now on behalf of Atkins 2 Atkins had with MTRC? 3 3 China Ltd, who is Mr John Blackwood, who is sitting in A. Yes. 4 the witness chair. 4 Q. Thank you. If you turn to page J85, we see there, 5 MR JOHN BLACKWOOD (affirmed) 5 again, amongst other things, a description of your roles 6 Examination-in-chief by MR CONNOR 6 and responsibilities as project director of team B? 7 Q. Thank you very much. Good morning, Mr Blackwood. 7 A. Correct. 8 Q. Again, by "team B", we understand the contract which A. Good morning. 9 9 Atkins China has with Leighton? Q. Your full name is John Blackwood? 10 A. That's correct. 10 A. Yes. Q. And you are, as far as this Commission of Inquiry is Q. For the sake of completeness, if you would be good 11 11 12 concerned, giving evidence in terms of your three roles: 12 enough to have before you what is JB-3, which is 13 you're a director of Atkins China Ltd? 13 page J87. That is an organisation sheet which I think 14 14 A. Yes, that's correct. explains the position of various personnel within Atkins 15 Q. You're the director of transport for Atkins China Ltd? 15 China, and in particular I think we see you to the 16 A. That's also correct. 16 left-hand side of that organisation chat. Just below Q. And you are project director in respect of two contracts 17 Mr Samson Sin as managing director, we see you as 17 18 with respect to the project under consideration in this 18 transport director? 19 Commission of Inquiry; correct? 19 A. That's correct. COMMISSIONER HANSFORD: Sorry, EDPM -- what is EDPM? 20 A. That's correct. 21 Q. One of those is the consultancy agreement, known as 21 A. Engineering design project management. It's a part of

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the Atkins Group. I shouldn't say it's part of the

we are part of the whole global EDPM business,

SNC-Lavalin group of companies. We are under EDPM and

Atkins Group; it's where Atkins sit within the

Page 53 Page 55 1 basically. 1 There we see a copy of a presentation, that is 2 2 COMMISSIONER HANSFORD: Thank you. a PowerPoint presentation, with notes sections 3 3 MR CONNOR: Thank you, Professor. completed, which run from that page, again just for the Again, turning to what is JB-4 in your statement at 4 4 purposes of the record, to page J3343; do you see that? 5 5 A. I do. page J88, we see then the organisation chart for the 6 transport division within Atkins; is that so? 6 Q. This is a presentation which was made by Atkins to the 7 A. Yes. Buildings Department on or about 12 July of this year? 8 Q. And we see you as director of transport, based in 8 A. Correct. 9 Hong Kong, and your three colleagues who report to you? 9 Q. This was a presentation, which I think the notes section 10 A. Correct. 10 narrates, which was primarily to a Prof Nethercot? 11 Q. Then finally in detail on this sort of matter, you see 11 Q. Can you just inform the Commission as to what the 12 at what is JB-5 to your statement, which starts at J89, 12 13 13 the first of three figures, beginning with figure 2, purpose was of that presentation, as you understand it, 14 which is an organisation chart in respect of team A, 14 and what your role was in that? 15 working with MTR; is that so? 15 A. I was -- we were requested by MTRC to give 16 A. Yes. 16 a presentation to Prof Nethercot, who was advising BD, 17 Q. Do we see you at very much the top of that page as 17 and to representatives of BD, on the fundamental design 18 project director? 18 principles and approach adopted for the design of the 19 underground element of Hung Hom Station, with a focus on 19 A. That's correct. 20 the EWL slab/D-wall connection, which was obviously 20 Q. Thank you. Just for the record, I think that is 21 an organisation chart dated as at October 2015; is that 21 a major issue at that time, and still is. 22 so? 22 MR CONNOR: Thank you. It's possible that others may ask 23 23 you about this in the course of the next while, but it's A. Yes. 24 24 Q. Thank you. But you are still in that role today? not, sir and professor, my intention to ask anything 25 25 A. Yes. further of this, but I do know that we will come back in Page 54 Page 56 more detail to this presentation when we come to the Q. Thank you. 1 1 2 2 Then turning to the next figure, which is at J90, second witness, Mr Wilson Sung, but it's important that 3 3 Mr Blackwood introduces it at this stage. this is an organisation chart in respect of team B; is 4 4 CHAIRMAN: Yes, certainly. that so? 5 A. Correct. 5 MR CONNOR: Thank you. I have nothing further to ask you in O. This is correct as at November 2014? 6 relation to that presentation at this stage, 6 7 A. Yes. 7 Mr Blackwood. 8 8 Finally, just in terms of the evidence that you have Q. And that shows you as project director in the top 9 9 presented already to the Commission -- you've told us right-hand corner of the organisation chart? 10 A. Correct. 10 about your statement and you've told us about the 11 Q. Finally, for completeness, at J91, at figure 4, this is 11 12 attachments to it, which run between JB-1 and JB-12, 12 the same organisation chart for team B, as at October 12 which for the record are between pages J80 and J3343. 13 13 2015? I think also, as you know, in the course of the last 14 A. Yes. 14 few weeks, there have been some questions asked by 15 Q. Again, your position similarly noted in the top 15 Prof McQuillan on behalf of the Commission; is that so? right-hand corner as project director? 16 A. There have been, yes. 16 A. Yes. 17 17 Q. And you have been the organiser of the responses to those enquiries made by Prof McQuillan? 18 Q. Thank you. Now, I think as you have said, the evidence 18 19 that you have provided in your witness statement has 19 A. The responses have been channelled through me back to 20 20 the Commission. some 12 attachments to it, which you will be pleased to 21 Q. Thank you. Again, for the record, but I don't intend 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 22 take you there in any detail at all, those responses 23 significance to the Commission as matters progress, and 23 appear in bundle J6. 24 that is to JB-12 which is at page J3323. I think, for 24 So just a very short but important question,

Mr Blackwood: would you please confirm to the Commission

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the record, that's probably bundle J5.

Page 57 Page 59 1 that the evidence that we have seen in your witness Q. -- he left in April 2016? 2 statement, together with the attachments that we've A. That's correct. 3 Q. And there were other members of the Atkins team that referred to, consist of your evidence to this 4 Commission, and that you so present it to the 4 were in both team A and team B? 5 Commission? 5 A. There were one or two, yes. 6 A. I do. 6 Q. There's one we've spotted, Edward Tse, T-S-E? 7 Q. Thank you. Do you confirm that, to the best of your 7 A. Yes. 8 O. He was in both. 8 knowledge and belief, it's true? 9 A. To the best of my knowledge and belief, it's true. 9 Could I ask you, please, on this topic, to be shown 10 MR CONNOR: Thank you very much. Now, you have been to 10 a couple of paragraphs from the witness statement of 11 earlier days of the Commission so you appreciate the 11 Mr Buckland of Leighton. First of all, can we look at 12 bundle C27/20804, and could we look at the footnote at 12 format and procedure that we have here. Mr Pennicott, 13 13 who's directly in front of me, may have some questions the bottom, please. 14 14 for you. Other counsel in the room may also have some What Mr Buckland says, in footnote 3 there -- he 15 15 questions for you. Most importantly, the Chairman and 16 the professor may have questions for you at any stage in 16 "Typically, the same group of people at Atkins acted 17 matters and, if need be, I may have some closing 17 as MTRCL's DDC and also for Leighton." 18 questions. 18 Then could we also look at C32/24023, at 19 19 paragraph 14. This is also Mr Buckland's further With that, thank you, Mr Blackwood. Please remain 20 20 statement. He says: there and I'll pass to Mr Pennicott. 21 Examination by MR PENNICOTT 21 "While MTRC may have initially intended there to be 22 MR PENNICOTT: Good morning, Mr Blackwood. 22 some separation between the two Atkins' teams, MTRC knew 23 23 A. Good morning. that there was no real separation and accepted this 24 24 position. Indeed, MTR actively encouraged the same Q. As I think Mr Connor has indicated, I think you're 25 25 people at Atkins to [complete] the work for MTR's DDC familiar with the way it works. Page 58 Page 60 and Leighton. It follows ..." A. Yes. 1 1 2 2 Q. Can I first of all, however, thank you for coming along Let's pause there. 3 3 to give evidence to the Commission this morning, and Do you agree with what Mr Buckland says in that 4 also thank you for the assistance and cooperation that 4 footnote and that paragraph that I've just shown you, 5 you've given in dealing with the queries of the 5 Mr Blackwood? 6 A. No, I don't agree with that. I think it's a bit of 6 Commission's expert. 7 7 A. Okay. a generalisation that it was the same people in the same 8 8 Q. Thank you for that. teams. I highlight in particular Mr David Wilson, who 9 9 Now, as we've just seen with Mr Connor, you were the was the structural team leader and the design 10 project director of both Atkins team A and team B? 10 coordinator for team B, who was totally dedicated to 11 A. Yes, and still am. 11 team B and the primary point of contact with team B. 12 Q. Yes, and still are, yes. I know we'll be hearing from 12 Q. Right. 13 him on Monday next week, but, as I understand it, 13 A. I think there was an understanding the teams would 14 Mr McCrae was, at the times we are concerned with in 14 communicate and that was encouraged, but that was where 15 this Commission -- 2014, 2015, going into 2016 --15 basically the intent was. 16 Mr McCrae was the project manager of Atkins team B and 16 Q. So your intent and objective was to try to keep them as 17 17 the design team leader of Atkins team A? separate as you could, given the situation? 18 A. That's correct. 18 A. Given -- there were a lot of pressures came on, it did 19 Q. So essentially the two most senior positions in those 19 get a bit blurred at certain times, but that's where the 20 20 teams were you and Mr McCrae, and you were in both process that I've highlighted in my statement was 21 teams? 21 important, that we stuck to the process, basically. 22 A. That's correct. 22 Q. Right. Did you ever, during the course of carrying out 23 Q. As I understand, Mr McCrae left in April -- well, left 23 the works on behalf of MTR on the one hand and Leighton 24 Hong Kong; I think he's still with Atkins in London --24 on the other -- did you ever receive any complaints or 25 A. Yes. 25 observations about the lack of separation between the

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Page 61 Page 63 the submissions came in they would still have to be 1 teams? 1 2 2 A. I think certainly there were -- nothing really from reviewed to make sure they were satisfactory, and that 3 Leighton, to be honest, I don't think. I don't think 3 their guidance or whatever had been given had been 4 I can recall anything in that regard. I think the 4 interpreted correctly. 5 design management team from MTRC were aware of trying to 5 Q. In the witness statement of Andy Leung from the MTR, he 6 make sure that the teams stay separate as far as 6 said that he insisted upon separation all along, from 7 possible and they were very strict in keeping control of 7 the outset of when Atkins team A and team B were, as it 8 8 the working drawings and particular changes to the were, engaged. We've seen what Mr Buckland says, and 9 working drawings which were the main way of controlling 9 perhaps the truth, the reality, lies somewhere in 10 10 the information that was built. between? 11 Q. Was there any specific complaint, I think that's really 11 A. Clearly, the way it was set up, the project team should 12 what I'm driving at? 12 have some visibility in who was talking to who, who was 13 A. I honestly can't recall anything specifically on that 13 communicating with who in terms of the email exchanges 14 14 and the like. So I think it would be a bit of a stretch 15 Q. Okay. I think one of the reasons, one of the 15 to say there was no -- a complete separation and no 16 explanations that both you and Mr McCrae have explained, 16 discussion. I think it was actively encouraged by MTRC 17 perhaps the necessity for close -- closer, perhaps, 17 because it gave a benefit of hindsight -- not hindsight, 18 closer cooperation than was anticipated at the outset 18 the knowledge that team A had, to try to improve the 19 was the substantial expansion of team B's work; would 19 efficiency of how team B worked, and we got submissions 20 that be right? 20 submitted on time. 21 A. Both the expansion and also the nature of the work they 21 Q. Had Atkins and you personally been involved in any sort 22 were required to carry out changed. 22 of similar situation before, Mr Blackwood? 23 23 Q. In what way was the nature of the work changed? A. To be honest, I can't recollect myself. It's not 24 24 I understand the scope. an atypical -- it's not a normal situation. And 25 25 A. I think when we started out, primarily it was temporary generally you would try to stay clear of that, if you Page 62 Page 64 works design, but I think as the project evolved, then 1 can. But in this particular case it was a request that 1 2 it became a little bit more complex. There was probably 2 Leighton wanted to employ us because of our specific 3 3 a greater interface on the permanent works or impact on knowledge, and I believe that MTRC understood why they 4 the permanent works and therefore a greater involvement 4 were employing team B because of that knowledge, so 5 5 therefore there was an element of that prior knowledge of team A in supporting. 6 being built into what Leighton were doing through 6 Q. Yes. Of course, part of the original intent, as 7 7 I understand it, was that, in relation to certain works, team B. 8 team B's work would be reviewed and perhaps commented 8 Q. Just so far as you personally are concerned, you've got 9 9 upon by team A; is that right? team A engaged by MTRC. 10 A. They would, yes. 10 A. Yes. Q. And then, when team B were taken on by Leighton in 11 Q. Did that really happen? I mean, was the separation 11 12 significant enough to allow that to happen? 12 2013 -- I mean, was it your mindset, your thought 13 A. I think, yes, there were certainly occasions where 13 process, that "I must try, as the project director, to 14 team A were not necessarily approving what team B may 14 keep these two teams as separate as possible"? At the 15 15 outset, I mean -- I know things moved on -- but at the have put forward. 16 Q. So you take the view, do you, that there was, as it 16 outset was that the objective? 17 were, sufficient separation and independence between the 17 A. I think there was an understanding that we should keep 18 two teams to allow team A to take a sufficiently 18 the teams as separate as we could do, yes, and we still 19 independent view about what team B were doing? 19 do. It's not something we started and then stopped. 20 20 Q. As I say, it seems, from what I've understood, that A. They could -- there were obviously discussions in 21 principle, et cetera, between team A and team B. The 21 because of what -- the matter we've just mentioned, the 22 idea was to try to get the submissions prepared as 22 expansion and the nature of the work, there seems to 23 efficiently as possible and as quickly as possible. So 23 have been, as it were, perhaps less separation than what

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was anticipated at the outset?

A. I would agree with that.

team A would be consulted on the principle, so it would

be hoped that the general principles would be -- so when

Page 65 Page 67 COMMISSIONER HANSFORD: Mr Blackwood, I'm struggling with 1 1 the work is still going on -- but do you regard it as 2 2 an entirely satisfactory position? Could things have this a little bit, because I hear your explanations and 3 I can see all the sense in what you're saying, but then 3 been set up somewhat better? 4 4 if you go to paragraph 16 of your witness statement and A. I still don't have a huge problem with myself being 5 the first sentence, I can't reconcile it with what 5 project director on both, or even necessarily Mr McCrae 6 you've just said to us. My reading of -- well, I think 6 being project manager and design team leader, because of 7 everybody's reading of the first sentence is -- "there 7 who we -- I certainly know Rob McCrae and how he would 8 was a need throughout to keep both team A and team B 8 behave. He would behave in the right manner, 9 independent with no conflicts of interest". How do you 9 essentially. So I trust his judgment on these issues. 10 10 reconcile that with what you've just told us? I don't We have technical people who are producing technical 11 understand. 11 solutions and we try to maintain that as separate as we 12 12 A. I think, as I said, that was the intent when we started, could, so essentially the technical product was produced 13 Professor, but I think as I go on to explain in the 13 by independent teams as far as possible. 14 following -- subsequent part of my submission, I think 14 COMMISSIONER HANSFORD: I'm not questioning whether there 15 15 it was paragraph 26, that the circumstances placed was actually any conflict of interest, but in my 16 increased pressure on trying to maintain that 16 experience, it's the perception of conflict of interest 17 separation. I think people tried to do it but we also 17 which is the biggest issue. I've been in the situation 18 tried to ensure that the decisions we made were the 18 you're talking about and I know how important it is to 19 right decisions for the project, and we tried to avoid 19 not only have no conflict of interest but actually 20 conflicts where we could, and still do. If we find 20 ensure there's no perception of conflict of interest. 21 something where we see a genuine conflict of interest 21 That doesn't appear to be the case here, but that's just 22 between what Leighton may be wanting, then we will not 22 observation. 23 23 A. I would say that given that we're having this 24 COMMISSIONER HANSFORD: Thank you. So the sentence is 24 conversation, clearly there was a perception that it 25 really related to avoiding conflicts of interest rather 25 might cause a problem, and therefore, in retrospect, it Page 66 Page 68 than keeping the teams independent, because -- it's the 1 1 probably would have been better to have totally separate 2 2 word "throughout" that I'm struggling with. If it said people. 3 3 COMMISSIONER HANSFORD: Right. I'll leave it there. Thank 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 4 5 throughout to keep them --5 MR PENNICOTT: But having said that -- slightly in your 6 A. It's maybe just the way I've explained it. There was 6 defensive, if I may say so, Mr Blackwood -- you had 7 certainly a need or a desire to maintain the separation 7 a situation where MTRC have taken you on first, Leighton 8 throughout. What I'm trying to explain is that there 8 wished to engage you, which they did, and MTRC didn't 9 9 was still an intent to avoid conflicts, to make put up a fight about that. The only imposition by MTR 10 decisions for the benefit of the project, so if there 10 was to try to keep the teams separate. 11 was a decision to be made it was made based on quality, 11 A. Correct. 12 safety and the like. 12 Q. All right. Could we turn to the changes, we've known 13 13 The reason that there might have been greater the first and the second change. 14 overlap that we might have hoped for or anticipated at 14 15 the start of the project was really more for efficiency, 15 Q. I appreciate that you say you didn't have day-to-day 16 to try to get submissions prepared and submitted as direct involvement in the project. 16 17 quickly as possible, but again without compromising the 17 A. That's correct. 18 quality or the safety of what we were producing. Q. And so far as the second change is concerned, that is 18 19 COMMISSIONER HANSFORD: I don't really want to labour the 19 the change to the detail of the top of the east 20 20 point, but then I read that Robert McCrae was design diaphragm wall, did you have, yourself personally, 21 21 team leader for team A and project manager for team B. contemporaneous knowledge of that change, when it 22 22 I will take your answer and probably stop at that point, happened? 23 but it just seemed slightly odd to me. 23 A. No. 24 A. I understand. 24 Q. We know that various reports were prepared by Leighton, MR PENNICOTT: Looking back on it, Mr Blackwood -- I know 25 both team A -- sorry, team B and team A, and submitted

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- 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
- diminish your role, Mr Blackwood -- but would it be
- right that it's really Mr McCrae that I should be
- discussing the detail of the reports, which I will get
- the opportunity to do next week?
- 16 A. Yes. Well, Rob would be more familiar with the detail
- in the reports, because he would be signing them off for
- issue. I have read them, obviously, read parts of them,
- 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
- everybody's time by going through it all with you and
- then going through it with Mr McCrae. If Mr McCrae, as
- 24 I understand it, looking at the emails, looking at -- as
 - you quite rightly say, his name appears on the front

- 1 what's recorded in the email exchanges of that time, in
- 2 late May, when a decision was made to actually not
 - include them in 4B2 and not formally submit 4B2.
- 4 Q. But you don't know why there were changes?
- A. I don't know why. And I can't add anything more thanwhat'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
- detail, should be poured, and we've got "at the same
- time", "concurrently", "monolithically". Again, is that
- 12 time, concurrently, monontinearly. Again, is that
- something you were involved with at the time or is that
- 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 giving17 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?
- A. Without discussing it with him, I can't really answer
- 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 --

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- 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
- discussions with various people and review of the
- reports, but it's entirely your decision as
- the Commission to whom you ask questions.
- 15 Q. Let me just pose an example to you. We know that there
- was a report, 4B2 and 4B3.
- 17 A. Yes.
- 18 Q. Temporary works design reports. And we know that in the
- 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
- omitted or would somebody else -- would Mr McCrae know?
- 25 A. I'm not sure even Rob would know the details, other than

- 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 detail PNAP 68?
- 8 A. No.
- 9 Q. Mr Blackwood, I think I'm right in suggesting that when
- DAmS, as we know it, DAmS 310 was issued in August
- 11 2015 -- again, no contemporary knowledge of that issue
- 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
- updating of working drawings and as-built drawings. In
- terms of producing working drawings, that would be the
- responsibility of Atkins team B -- team A?
- 19 A. Team A.
- Q. And would Atkins team B have any involvement in theproduction of working drawings?
- 22 A. They shouldn't have an involvement in the production of
- them. They may have helped produce drawings for
- Leighton to submit to reflect what they wanted to have
 - as a change incorporated into the permanent design, and

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- 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
- that one, to be honest. I don't think either team B or 13
- 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 O. 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.

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- 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

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- 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 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

- issued saying, "This is what you should be building 1
- 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

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- 1 the situation, now, let's assume that that's the case.
- 2 A. Yes.

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- 3 Q. As I understand it, you would say Atkins team B might be
 - 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
 - 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
- gets to see what's going on, everybody gets on to the 24
- 25 same page, and there's nobody left out of the loop,

Page 77 Page 79 1 basically. 1 When you say a "change to the D-wall", are you 2 2 Q. What perhaps appears to have happened -- obviously we've referring down to the trimming down of the concrete by 3 not quite got to the end of all the evidence yet -- but 3 450 millimetres or so? 4 what appears to have happened is nobody got that ball 4 A. That's my understanding. 5 rolling, nobody kicked it towards Atkins team B, and 5 Q. With your experience in Hong Kong, is that something 6 therefore the process didn't seen start. 6 that you take the view that an amendment submission 7 A. Again, based on the evidence I have seen and read, 7 ought to have been made before it was instigated or 8 that's my understanding of the situation, or my 8 implemented? 9 interpretation, I should say, of the situation, that the 9 A. Let me preface my response by saying I'm not 10 ball never got rolling and it was never picked up 10 a structural engineer and I'm not particularly 11 on site, "Why is that not happening?" experienced in the ways of the Buildings Department. 11 12 Q. Yes. 12 But, with my limited the knowledge, looking at it, it 13 A. There's a check and a balance. You need Leighton to 13 seems a fairly minor change to the D-wall and I don't start it but you're also still building it, so you need 14 14 think it really affected its structural ability to 15 something that says, "What am I building to?" 15 perform its ultimate function. 16 Q. Yes. And even more so, I would imagine, you would 16 But I believe, because of the nature of the work, as 17 agree, Mr Blackwood, in circumstances where, as we know 17 I understand it from colleagues, you would need 18 now, the change is not uniform, that we've got certain 18 an amendment submission. The question is whether you 19 19 details in certain areas and other details in other need to do it before or you can do it in parallel, but 20 areas -- even more so that one is keeping tabs on what 20 it was not raised or discussed at that time. 21 is actually being constructed? 21 Q. Okay. And it's not something you feel comfortable about 22 A. It certainly makes the as-built drawing production 22 taking a view on? 23 23 easier if you've got a set of working drawings that are A. I'm not an expert in that area and it would be wrong to 24 24 up to date and record most of the changes you have. give a view on it because it would be misleading, or 25 25 It's a good foundation for the start. could be misleading. Page 78 Page 80 Q. As I understand, it is really only earlier this year Q. Understood. Right. 1 2 that Atkins team B have been asked to participate in the 2 Thank you very much, Mr Blackwood. That's all 3 3 putting together of the as-built drawings? I have for you. 4 A. We received an instruction basically from Leighton, 4 A. Thank you. 5 I think it was 12 June, to assist them with the 5 MR SO: No questions from China Technology. preparation of the as-built -- amendment drawings, as it 6 Cross-examination by MR CHOW 6 7 7 MR CHOW: Mr Chairman, there are some questions from the is at this stage. 8 8 Q. Finally from me, can I ask you to go to paragraph 99 of government. 9 9 Good afternoon, Mr Blackwood. your witness statement, please. We are in that part of 10 the statement, Mr Blackwood, where you are dealing with 10 A. Good afternoon. Q. My name is Anthony Chow and I represent the government. 11 the second change. 11 12 12 A. Yes. Originally, I only had one or two questions for you 13 in relation to one specific issue, and that is whether 13 Q. I just want to understand paragraph 99. You say: 14 "Typically, the process on site to address such 14 prior consultation with the Buildings Department is 15 changed details would be dealt with by TQ or CSF." 15 required to effect the second change. Mr Pennicott has 16 covered one of my questions already, so I will just 16 As you've just mentioned. 17 "This could then have been reviewed and assessed and 17 concentrate on the next one. The relevant part of your 18 18 a decision taken on whether it was minor and form part evidence is in paragraph 98. 19 of the final amendment submission or a separate 19 Mr Pennicott has taken you to paragraph 99, but 20 20 submission had to be made to BD. In either case a DAmS before that, in paragraph 98, you also express a view on 21 or revised working drawing can be issued." 21 whether the change was a substantial change. 22 A point you've also made. Then you say this: 22 The way I see how you arrange the contents into two 23 23

separate paragraphs, am I right to say that in

paragraph 98, when you talk about "not a substantial

change", you were only talking about the fact of

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"The issue in this case is further complicated by

the change to the D-wall which would require

an amendment submission."

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11

- 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.

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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

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
 - raised, then you would review the proposal and you would

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.

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

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- obviously have a discussion between MTRC design management and, if necessary, consult the competent
- 2 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.
 - Q. Right. So, in other words, for changes of this nature,
- 8 you express no view as to whether such change would
 - 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

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- I think you should recognise that in parallel with 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

- 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
 - satisfied, largely, that the process intent has been
- 22 met?

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- 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
 - seem to support that view as well, Mr Buckland in

1	Page 85		Page 87
2	particular, and also I think I seem to remember	1	being up to date and the construction being built
2	Mr Chan did a similar thing.	2	according to those drawings, and also that the quality
3	I would also add that I don't think it was a factor	3	is there in terms of what's built. So you are dependent
4	in the issues before the Commission just now, in terms	4	on the supervision on site, both the contractor and also
5	of the cutting of the rebar or the change that has been	5	the construction team on site supervising it.
6	made. It was not whether we were on team B and also	6	COMMISSIONER HANSFORD: So, a little bit of a hypothetical
7	team A; I think that wasn't a factor.	7	question, so forgive me
8	MR CONNOR: Thank you very much. Unless the Chairman or the	8	CHAIRMAN: Sorry, I do apologise, I'm interrupting you
9	professor has anything further.	9	I didn't quite get the answer there. Sorry, Peter.
10	Questioning by THE COMMISSIONERS	10	COMMISSIONER HANSFORD: No, no.
11	COMMISSIONER HANSFORD: Yes, I do. There's one area I'd	11	A. In terms of?
12	like to get your input on, you can help me with,	12	CHAIRMAN: Well, how does the design team know that what in
13	Mr Blackwood. This is about designers having site	13	fact is being constructed on site, especially in
14	presence or not.	14	a complex, hard-pressed construction how does that
15	A. Yes.	15	design team know that it's being built according to the
16	COMMISSIONER HANSFORD: In your paragraph 14, 14.1 and 14.2	16	design absolutely?
17	of your witness statement perhaps we can put it on	17	A. You don't know. You're reliant on the efforts of
18	the screen, J59 you tell us in both of those that	18	others, basically. You are reliant on the site team
19	team A was not required to supervise any of the site	19	supervising it to ensure that it's constructed according
20	works and only relied on information from MTR, and	20	to your drawings, and obviously the contractor
21	team B did not have any on-site presence and relied only	21	constructing it to the quality that's specified and
22	upon information provided by Leighton?	22	shown on the drawings. But you don't have any visible
23	Why was that?	23	way of checking. There's not even an audit or
24	A. It's a good question.	24	a monitoring thing where you go out and do I'll do
25	COMMISSIONER HANSFORD: Thank you!	25	a quarterly or a monthly audit to see what you might do.
	Page 86		Page 88
1	A. It seems to be the process followed on MTRC projects.	1	There's no requirement for that.
2	It's slightly if I can digress a little bit when	2	CHAIRMAN: No audit process at all?
3	we actually do the detailed design, we sit in the design	3	A. No audit process, no.
4	office with MTRC's design management team, with the	4	COMMISSIONER HANSFORD: My hypothetical question to you was
5	construction team, with members of their operations	5	going to be that if you were asked in future to carry
6	team, to try to get an integrated design, but as soon as	6	
	construction starts, we have a design liaison		out this type of work and told and you will not have
7	construction starts, we have a design harson	7	out this type of work and told and you will not have a site presence, is that something you feel you could
7 8	representative on site who is almost like a postbox back	7 8	
			a site presence, is that something you feel you could
8	representative on site who is almost like a postbox back	8	a site presence, is that something you feel you could comfortably do? A. To be honest, I think we exercised the responsibilities we had under our contract. What I'm saying whether
8 9	representative on site who is almost like a postbox back to the design team in head office. I think it's a good question, particularly for jobs as complicated as this one, where you are likely to get change once you get	8 9	a site presence, is that something you feel you could comfortably do? A. To be honest, I think we exercised the responsibilities we had under our contract. What I'm saying whether it's me or is it the right thing to do, could we improve
8 9 10	representative on site who is almost like a postbox back to the design team in head office. I think it's a good question, particularly for jobs as complicated as this one, where you are likely to get change once you get on site. I think in a simple job it probably works	8 9 10	a site presence, is that something you feel you could comfortably do? A. To be honest, I think we exercised the responsibilities we had under our contract. What I'm saying whether
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8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	representative on site who is almost like a postbox back to the design team in head office. I think it's a good question, particularly for jobs as complicated as this one, where you are likely to get change once you get on site. I think in a simple job it probably works quite well, but I think in projects where maybe there's a degree of complexity or issues that may arise on site, having some design support closer to site might be something that could be considered in the future. COMMISSIONER HANSFORD: That's helpful, because we're certainly looking at what perhaps ought to be done in the future. A. Yes. COMMISSIONER HANSFORD: But I'm still puzzled by how can the designer be sure that his design intent is implemented	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	a site presence, is that something you feel you could comfortably do? A. To be honest, I think we exercised the responsibilities we had under our contract. What I'm saying whether it's me or is it the right thing to do, could we improve how we actually oversee and deliver those projects? There are different ways you can actually do it, but certainly that would be a good starting point, whether it be people sitting on site or a design team sitting on site so they can actually go and liaise more closely with the construction and design management teams to make sure you don't have a situation where something's been built that you don't know about, it's easy for people to go and say, "I want to do this, is that okay?" That might be one thing, that is one option. The other is you do routine audits. You go and you have

	Page 89		Page 91
1	specific audits just to check on what's been built.	1	until after lunch, and I think there's also a little bit
2	But the industry as a whole should be trying to be	2	of set-up that the solicitors for the Commission team
3	better than that and that people work together and do	3	need to get underway for the PowerPoint presentation
4	the job that they're supposed to be doing, basically.	4	that I mentioned earlier on.
5	COMMISSIONER HANSFORD: Yes. I'm interested in moving the		So, subject to any views from Mr Pennicott or my
6	whole industry.	6	friends or yourselves, sirs, I would have thought it
7	A. I think and to be fair, in this particular project,	7	might be a good time to rise and we might start with
8	I think MTRC were trying to move the industry forward.	8	Mr Sung as and when we are ready.
9	They adopted a target cost contract, which they	9	MR PENNICOTT: Sir, I thoroughly agree with that.
10	recognised the risk and the complexity on the project,	10	Sir, can I just mention so that everybody is aware:
11	particularly working within the operating railway	11	Mr Sung was involved with Mr Blackwood in the
12	environment and the challenges that that might pose as	12	presentation to Prof Nethercot back in July. Whilst we
13	we moved into the construction phase. So they engaged	13	have not troubled Mr Blackwood with his part of the
14	at an early stage with the contractors to try to find	14	PowerPoint presentation, we are going to trouble
15	the best way they would want to construct it so we would	15	Mr Sung. Indeed, whilst it might appear a bit lazy, for
16	try to minimise change once we got on site, which is	16	which we apologise, we are actually going to ask Mr Sung
17	obviously a key challenge, or a key objective. I just	17	to, as it were, talk us through and give us
18	think that we need to be better at it. You know,	18	a presentation of the last five or six slides, I think
19	there's checks and balances and you put in more layers	19	it's slides 13 to 18, which we understand will take
20	of oversight but that just makes it less efficient.	20	about 15 to 20 minutes. So that's our proposal.
21	It's just having doing what you're supposed to be	21	He has no contemporary knowledge of matters in any
22	doing. And processes are important and you follow the	22	event. He wasn't engaged, I think, until sometime
23	process, and I think maybe on one or two occasions here	23	earlier this year. However, he does have knowledge
24	we didn't follow the process.	24	about the design of the works itself and he can give
25	COMMISSIONER HANSFORD: But nevertheless, on this project,	25	a good explanation by reference to the PowerPoint
	Page 90		Page 92
1	you were not required to have an on-site presence at	1	slides.
2	all; correct?	2	I'm told one of the reasons we're doing this is
3	A. Not to supervise the works but we had design liaison	3	because the Commission's expert, Prof McQuillan, thinks
4	representatives on site who would be a vehicle for	4	it would be good to have an explanation of those slides,
5	liaising with the design teams back in the head office,	5	it would assist him and it perhaps would assist other
6	but not to supervise the works.	6	experts as well if that presentation is given.
7	COMMISSIONER HANSFORD: Were you prevented from access to	7	So with that introduction, that's what's going to
8	the site?	8	happen after lunch.
9	A. No. I don't believe we were prevented. But it wasn't	9	CHAIRMAN: It's these documents here? (Indicating).
10	a requirement to do it is what I'm saying.	10	MR PENNICOTT: That's right, sir, yes.
11	COMMISSIONER HANSFORD: Okay.	11	CHAIRMAN: There's a fascinating one about three-quarters of
12	A. And, you know, you've got to remember it's only one or	12	the way through:
13	two people. They have a pretty heavy workload. So they	13	"Step 2: Plaxis analysis".
14	are not going out, swanning around, looking at what's	14	Quite what "Plaxis" is, I don't know.
15	going on elsewhere. They're pretty demanding task.	15	COMMISSIONER HANSFORD: I'm very much looking forward to
16	COMMISSIONER HANSFORD: Thank you. That helps me.	16	that part.
	CHAIRMAN: Good. Thank you very much indeed. You have been	17	MR PENNICOTT: You're probably the only one who's going to
17		18	understand it.
18	of great assistance. Thank you. Your evidence is now	•	· ·
	completed.	19	CHAIRMAN: It looks very complex.
18	completed. WITNESS: Thank you very much.		MR PENNICOTT: We are all going to have to be wide awake
18 19 20 21	completed. WITNESS: Thank you very much. CHAIRMAN: Thank you for coming out.	19	MR PENNICOTT: We are all going to have to be wide awake this afternoon.
18 19 20 21 22	completed. WITNESS: Thank you very much. CHAIRMAN: Thank you for coming out. (The witness was released)	19 20 21 22	MR PENNICOTT: We are all going to have to be wide awake this afternoon. CHAIRMAN: Good. So we will break for lunch and return at
18 19 20 21 22 23	completed. WITNESS: Thank you very much. CHAIRMAN: Thank you for coming out. (The witness was released) MR CONNOR: Thank you very much, Mr Blackwood.	19 20 21 22 23	MR PENNICOTT: We are all going to have to be wide awake this afternoon. CHAIRMAN: Good. So we will break for lunch and return at 2.15.
18 19 20 21 22	completed. WITNESS: Thank you very much. CHAIRMAN: Thank you for coming out. (The witness was released)	19 20 21 22	MR PENNICOTT: We are all going to have to be wide awake this afternoon. CHAIRMAN: Good. So we will break for lunch and return at

23

24

belief?

A. (In English) Yes, confirm.

statement is true to the best of your knowledge and

Page 93 Page 95 1 (12.50 pm)1 Q. Just while we have your statement to hand, if we might 2 (The luncheon adjournment) 2 go back to it, please, at J4535. Thank you. I think 3 (2.19 pm) 3 you confirmed -- if you would go to paragraph 3 of that 4 MR CONNOR: Good afternoon, sir. Good afternoon, Professor 4 statement, which is on the same page at 4535, that you 5 The second witness for Atkins is Mr Wilson Sung. He is 5 became involved in the Hung Hom Station Extension under Mr Chi Man Sung, and he will be giving -- Mr Wilson 6 6 the Shatin to Central Link Project in June 2018. 7 Sung, good afternoon. 7 A. (In English) Yes. 8 WITNESS: (In English) Good afternoon. 8 Q. So your involvement is in very recent times? 9 MR CONNOR: Would you please just confirm that you are 9 A. (In English) Yes. 10 Mr Chi Man Sung? 10 Q. And your role is to assist the contractor, Leighton, as 11 WITNESS: (In English) Yes. 11 team B, in providing structural design support as 12 MR CONNOR: Also known as Wilson Sung? 12 required? 13 WITNESS: (In English) Yes. 13 A. (In English) Yes. 14 MR CONNOR: I think you are going to give your evidence in 14 Q. If you move on, please, through your witness statement, 15 Cantonese? 15 I think that what we find later on in your statement, at 16 WITNESS: (In English) Yes. 16 page J4540, is some involvement that you had as covered 17 MR SUNG CHI MAN, WILSON (affirmed in Punti) 17 in paragraphs 36 to 39 in a presentation to Prof David A 18 (All answers given via simultaneous interpreter 18 Nethercot? 19 except where otherwise specified) 19 A. (In English) Yes. 20 Examination-in-chief by MR CONNOR 20 Q. It is right, I think, that this is a presentation which 21 MR CONNOR: Mr Sung, I think as we have seen from your 21 you gave obviously after June 2018? 22 statement, you joined Atkins China in about July 2017? 22 A. (In English) Yes. 23 23 A. (In English) Yes. Q. And you gave that in your capacity as head of structures Q. You are the head of structures for Asia Pacific at 24 24 in Atkins? 25 Atkins China Ltd? 25 A. (In English) Yes. Page 94 Page 96 A. (In English) Yes. 1 Q. It was a presentation in which you co-presented with 1 2 Q. Would you please have on the screen before you your 2 Mr John Blackwood? 3 3 A. (In English) Yes. witness statement which you have prepared for the 4 purposes of this Commission, which is at J6/23. That 4 Q. For the assistance of the Commission, if you might have 5 5 before you bundle J4 at page J3323, we see is, for the record, at page J4535. 6 6 a presentation set out there in PowerPoint form; is that You see that's the first page of your statement, 7 7 so? Mr Sung. Do you recognise that? 8 8 A. (In English) Yes. A. (In English) Yes. 9 Q. If you would be taken, please, to page J4541 of the same 9 Q. Is this the PowerPoint presentation with notes which 10 bundle. That is page 7 of your witness statement, and 10 form the presentation which you and Mr Blackwood gave to 11 we see a signature there. Is that your signature? 11 12 A. (In English) Yes. 12 A. (In English) Yes. 13 Q. Thank you. In particular, if you turn to page J3335, 13 Q. Just for completeness, I think there's one attachment to 14 your witness statement, which appears at J4542. Thank 14 you will see at that slide there is an opening title you. And if you move to page J4543, I think that is 15 15 slide headed "Modelling approach"; do you see that? A. (In English) Yes. 16 your CV? 16 17 Q. Is this the beginning of the section of presentation 17 A. (In English) Yes. Q. Would you please, just to complete the formality, 18 that you gave? 18 19 confirm that that witness statement, with its 19 A. (In English) Yes. 20 attachment, represents your evidence to this Commission? 20 Q. Did that part of the presentation that you gave run up 21 A. (In English) Yes, I confirm. 21 to and include page J3340? 22 Q. Would you please confirm that what you say in your 22 A. (In English) Yes.

Q. Thank you very much for that, Mr Sung. The reason for

learned friend Mr Cheuk asks you some questions in just

taking you to that particular section is that when my

23

24

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3

- 1 a moment, I think he will want to ask you a bit more of
- 2 that, but I think you have now identified to the
- 3 Chairman and to Prof Hansford that part of the
- 4 presentation in which you were involved.
- 5 A. (In English) Okay.
- 6 Q. So thank you very much. I have no further questions for
- 7 you at this stage. But would you please stay where you
- 8 are. In a moment, my friend Mr Cheuk will ask you some
- 9 questions. Then he may well be followed by some other
- 10 of my fellow counsel in this room with some questions.
- 11 The Chairman and the professor may have some questions
- 12 for you during that section, or indeed at the end, or at
- 13 any time, and I'm sure you will do your best to assist.
- 14 A. (In English) Okay.
- 15 MR CONNOR: Thank you. Please stay where you are.
- 16 Examination by MR CHEUK
- 17 MR CHEUK: Good afternoon, Mr Sung. My name is Calvin
- 18 Cheuk, I'm one of the counsel for the Commission.
- 19 I will have some questions for you.
- 20 Is it correct that on 12 July 2018, you with
- 21 Mr Blackwood and Mr Wu went to the BD to do
- 22 a presentation to BD's then adviser, Prof Nethercot?
- 23 A. (In English) Yes.

that particular day.

- 24 Q. And probably Mr Connor has explained to you one of the
- 25 reasons why we would like you to be here today is really

1 A. (In English) Okay.

- 2 Q. So I understand you have already given the PowerPoint
 - slides to the Commission, so there will be a lady
- 4 sitting over there who will be in control of the
- 5 PowerPoint slides. You can have your own course but you
- 6 might need to give the express direction to the operator
- 7 of the slides so that she can follow your instruction.
- 8 One last point I might -- if I may ask you to bear
- 9 in mind is that I can see a lot of technical language in
- 10 the slides.
- A. (In English) Yes. 11
- 12 Q. So please, you can assume we don't understand those
- 13 technical language, and if you may, you might try to
- 14 assume that we don't know about it and try to take it
- 15 slowly.
- 16 A. (In English) Okay.
- Q. If I may ask you to take that in mind. 17
- 18 A. (In English) Okay.
- 19 Q. I understand Mr Connor asked me to refer you to J3340.
- 20 That is the last page of your presentation.
- 21 A. Mm-hmm.
- 22 Q. I'm told it might be a good starting point for your
- 23 explanation. So feel free to start with that slide and
- 24 then you can change your course of presentation as you
 - wish to do so.

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25

to explain a bit more your presentation that you did on 1

- 3
- 3 A. (In English) Okay.
- 4 Q. We glimpsed through the slides, and one of the reasons 5 we ask you to be here is that the Commission's expert,
- 6 Prof McQuillan, would like you to explain a bit more in
- 7 detail so that it can be captured in the transcript
- 8 which he will be able to read in preparing his expert
- 9 report.

1

2

- 10 A. (In English) Okay.
- 11 Q. That's the background that the Commission will require
- 12 your assistance.
- 13 A. (In English) Okay.
- 14 Q. Being not any sort of engineer at all, when I went
- 15 through the slides, I can see a lot of things I don't
- 16 really understand, so please -- what I propose to do is
- 17 that I will let you run your own course, but I might
- 18 interject if I understand I have questions for you,
- 19 I might ask you to stop for a while and have one or two
- 20 questions. I don't anticipate it to be a lot.
- 21 A. (In English) Okay.
- 22 Q. Then, after your presentation, I might have some other
- 23 questions in relation to the preparation of as-built
- 24 records. That will be the overall structure of my
- 25 questions. Is that okay?

- A. So we can start with J3335. So I went to the BD to give
- 2 a presentation and I started from this slide. So, in
- construction --
- 4 Q. Wait. You can look at -- the screen in front of you,
- 5 that will be the screen that everybody in this room will
- 6 be following. So, while you have a hard copy next to
- 7 you, can you also bear in mind that we are looking at
- 8 the screen so if you can look at the screen and pause
 - there until the screen shows the right page, that would
- 10 be very helpful.

11 A. Okay.

9

12 So the presentation started, and when it was my turn

13 to speak I was talking about the structural modelling

14 approach. In the construction industry, we have

15

different structural modelling software. In this project, we used different types of software to simulate 16

17 the structures.

18 We can go on to the next page. First of all, in the

19 EW -- East West slab, there are many openings, and if

20 you look at the diagram, we see the red area. That is

21 the surface of the slab. It's a platform, and in the

white areas you can see something called an opening,

23 because in the EWL slab there are different structures

24 where they have to drill some cores. There might be

25 lifts and escalators. Because after they drill the

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- 1 opening, that will affect the stiffness of the slab.
- 2 The stiffness will be weakened.
- We need to conduct some simulation to model the
- 4 impact, so we utilise a software called the SAP2000 slab
- 5 model, and that is a model approved by the BD. So, in
- 6 the model, we have some loading, there's loading on top,
- 7 and at the bottom we provide some support. We will also
- 8 apply a unit moment, a reaction force, so that reaction
- 9 force -- there's an axial force, there's a unit rotation
- 10 force and a unit moment force included.
- 11 The purpose is to see -- when we drill an opening,
- what kind of behaviour will be seen and that is what the
- model accomplishes. So, in areas B and C, we have five
- models, because when we have different drilling, when we
- have more drilling, we want to see the impact on the
- 16 stiffness.

25

- 17 Q. You may carry on.
- 18 MR SHIEH: I'm sorry to interject but I heard what Mr Cheuk
- said to the witness. Maybe others understand. I have
- 20 A Level physics but I had difficulty. As I said to
- 21 Leighton's own witness, perhaps I can say, "Imagine
- 22 explaining it to a five-year-old child", because
- otherwise -- for example, those who have to physics
- 24 wouldn't know what "moment" means. I know but I don't
 - know whether others do.

1 Q. Because I can see there's difficulty in translating

- 2 everything, in particular given the technical language
 - here. That's point number one, if I may ask you to bear
- 4 that in mind.

3

6

- 5 Point number two is that, again, as Mr Shieh has
 - indicated, if you can try to use even more simple
- 7 language to explain, and I might also interject to
- 8 explain my understanding to you, to see whether that can
- 9 help everybody.
- 10 A. (In English) Okay.
- 11 Q. I hope that might help everyone to understand what this
- 12 presentation really means.
- 13 A. (In English) Okay.
- 14 Q. Let's start from this first slide. As I understand it,
- the red -- what we are looking at is a piece of EWL
- 16 slab?
- 17 A. (In English) Yes.
- 18 CHAIRMAN: From the top or the side?
- 19 MR CHEUK: From the top. From the top; is that correct?
- 20 A. Yes, correct.
- 21 COMMISSIONER HANSFORD: It's a plan view?
- 22 MR CHEUK: It's a plan view, yes. The red part is showing
- the actual slab, and there's something empty, white
- part, in the middle, which is an opening?
- 25 A. (In English) Yes.

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- 1 CHAIRMAN: I would like to know.
- 2 COMMISSIONER HANSFORD: Sorry, while we're on this subject,
- 3 I have some questions on this slide. Is the intent that
- 4 we wait until the end of the whole presentation and go
- 5 back to our questions, or is the intent that we take
- 6 questions slide by slide? I'm asking you but maybe
- I should be asking Mr Cheuk: which do you prefer?MR CHEUK: I think it would be better if, Professor, you
- 9 have any questions just ask at the moment rather than
- wait until at the end, because it might be difficult for
- us to trace all the slides after we finish the whole
- 12 thing.
- 13 COMMISSIONER HANSFORD: Okay. That's fine. Perhaps we wil
- 14 start with the Chairman and Mr Shieh's questions about
- 15 what a "moment" is.
- 16 MR CHEUK: Let me try to explain a little bit to this
- 17 witness first.
- 18 Mr Sung, thank you. Although I also have an A Level
- in physics but I do also have difficulty understanding
- 20 everything. Can I ask you two points. First of all,
- 21 actually, what you say will be captured in the
- 22 microphone and then translated. There will be some
- 23 delay in translation. So if I may first ask you to slow
- 24 down.
- 25 A. (In English) Okay.

- Q. What you are telling us is that the slab contains
- 2 various openings at various locations, and these
- 3 openings will reduce the stiffness of the slab. What
- 4 this slide shows is using a computer software or
- 5 programme, SAP2000, to test or to try to simulate --
- 6 A. (In English) Simulate.
- 7 Q. -- the actual performance of the slab or its stiffness,
- 8 given there are some openings in the middle.
- 9 COMMISSIONER HANSFORD: Just on that point, when you were
- 10 talking about the openings, Mr Sung, you said they were
- drilled. Were they drilled? I thought they were cast
- in place. I thought the openings were made as part of
- the original casting of the concrete rather than
- 14 drilled.
- 15 A. (In English) No.
- 16 COMMISSIONER HANSFORD: They are drilled, are they?
- 17 A. (In English) I think maybe a translation problem.
- 18 MR CHEUK: I think, Professor, your understanding is
- 19 correct, they were it is cast in place.
- 20 COMMISSIONER HANSFORD: That would make more sense to me
- 21 A. (In English) Yes.
- 22 CHAIRMAN: And what's the blue line?
- 23 MR CHEUK: That I don't understand, frankly.
- 24 CHAIRMAN: And what's the little mauve line with a white
- opening at the top?

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1	A. First of all, the blue area, in the model, they will	1	MR CHEUK: Okay, I think you can proceed with your
2	we have a strip width and each strip width size is	2	presentation. I think we've got a fairly good idea
3	pre-determined, and the blue part is also part of the	3	about what the first slide means here.
4	EWL slab. There's nothing special to it. It's just	4	COMMISSIONER HANSFORD: I think we've got a good idea about
5	that during the presentation, when we explained it to	5	the red and the blue and the white. I'm not sure people
6	the professor, we had to highlight we were using a strip	6	in the room have a good idea about unit axial modes and
7	approach.	7	unit rotation yet.
8	(Chinese spoken)	8	MR CHEUK: Yes. I wonder, Mr Sung, if you could also
9	MR CHEUK: Sorry, can I stop you. What you are telling us	9	explain a little what does that mean as asked by the
10	is the blue part is part of the slab?	10	professor.
11	A. Yes.	11	A. So let me explain why we have unit axial/unit rotation.
12	Q. And you highlight that blue part was for the reference	12	So first of all the structural modelling, the purpose is
13	of Prof Nethercot, but for what purpose?	13	to help us identify I should say that in the support
14	COMMISSIONER HANSFORD: Yes, because the label says less	14	area, what the stiffness factor is. We want to know
15	than 3 metres thick. It suggests to us that the red is	15	when there's an opening in the slab, when there's
16	3 metres thick and the blue is less than 3 metres thick.	16	loading in the slab, what kind of changes in the
17	But is that correct?	17	stiffness factor will occur. So that's why we apply a
18	A. I should put it this way. In this slab, some areas, not	18	unit axial/unit rotation, we want to find out the
19	all of them are 3 metres wide. So if you look at	19	rotational spring.
20	this	20	(In English) We need to find the spring, the
21	COMMISSIONER HANSFORD: 3 metres thick, not wide; do you	ւ 21	rotational spring and also the actual spring for the
22	mean "thick"?	22	slab at the support.
23	A. (In English) Yes, the thickness.	23	COMMISSIONER HANSFORD: I fear that I understand it but I
24	COMMISSIONER HANSFORD: Sorry, it must be the translation	24	suspect others don't yet, what is meant by unit axial
25	again. Okay.	25	and what is meant by unit rotational. That would be
	Page 106		Page 108
1	MR CHEUK: Let me try to summarise your evidence.	1	my I can't speak for people in this room, but looking
2	A. (In English) Okay.	2	at some nodding heads, I think that's the case.
3	Q. Basically, the blue part is the location where the slab	3	MR CHEUK: Professor, frankly, I think it's difficult for
4	thickness is less than 3 metres?	4	everybody in the room not in the engineering training to
5	A. (In English) Yes.	5	understand all the details.
6	Q. Otherwise, in general, the thickness should be 3 metres?	6	COMMISSIONER HANSFORD: So perhaps they don't need to is
7	A. (In English) Yes.	7	what you're saying?
8	Q. That's the distinction.	8	MR CHEUK: Yes. The original purpose of this presentation
9	COMMISSIONER HANSFORD: And are there actually any areas	9	is not really to do the usual cross-examination,
10	that are less than 3 metres? Is this just	10	understanding all the details here.
11	representative in the model of some areas that may be	11	COMMISSIONER HANSFORD: Okay.
12	thinner than 3 metres? Is that the purpose of it?	12	MR CHEUK: The original purpose of this presentation is
13	A. Yes, because I mentioned just now in the whole areas B	13	really arising from Prof McQuillan's need to understand
14	and C we had cut open five portions by method and we	14	these slides and what was the presentation done to
15	would conducted an assessment to when there are	15	Prof Nethercot at that point of time.
16	openings. We also have some openings and want to see	16	That's why, originally, we didn't expect all the
17	when it's connected how it would affect the structure.	17	laypersons, so to speak, to understand all the
18	COMMISSIONER HANSFORD: Yes, I understand about the	18	intricacies, this thinking here.
19	openings, Mr Sung. I don't yet understand about the	19	COMMISSIONER HANSFORD: So, Mr Cheuk, shall we assume that
20	sections that are less than 3 metres thick.	20	Mr Sung's audience have engineering degrees?
	A D	21	MR CHEUK: I would have thought many parties here have
21	A. Because some parts, structurally they cannot make it		
21 22	3 metres thick. They might have an escalator going up,	22	already instructed experts. The purpose of this
21 22 23	3 metres thick. They might have an escalator going up, so there would be some chambers and some areas would be	23	presentation is to really give something for our
21 22	3 metres thick. They might have an escalator going up,	23 24	

Page 109 Page 111 and to see whether the diaphragm wall works as it was 1 a lecture on civil engineering. 1 COMMISSIONER HANSFORD: No. 2 2 designed. If it passed the software analysis, it means 3 MR CHEUK: No. So what I propose -- of course I'm not going 3 that the design was probably good. That's the purpose 4 to prevent any questions, if any party is interested in of this Plaxis analysis; is that a good summary? 5 all the engineering details. That's why we have him 5 A. Yes, and if it is found to be okay, we will do 6 here. If any party wishes to ask questions, they can. 6 reinforcement checking of the diaphragm wall. 7 But it's not the purpose to go through all the sort of 7 Q. Also we see there are different colours of layers of 8 details so that it can be understood by all the 8 soil here. As I understand, it represents different 9 laypersons here. That would not be the original 9 kinds of soil underground. For example, at the very 10 purpose, and that would not be the purpose of this part 10 below, we see something pink. That might be some -- the 11 of cross-examination. 11 deepest layer of the ground. 12 As I originally indicated, apart from a few 12 A. (In English) The bedrock. 13 questions, I did not intend to have many questions on 13 Q. Where the diaphragm wall sits on. 14 14 A. Correct. 15 COMMISSIONER HANSFORD: That's fine. 15 Q. You might need to speak up so your voice can be 16 CHAIRMAN: All right. Can I ask you a question: what do you 16 captured. 17 mean by "stiffness"? I understand you've got a test. 17 A. (In English) Okay. 18 I know what "stiffness" means. It either means a form 18 Q. After that you have the purple part of the soil. What 19 of rigidity or it means I can't move my muscles because 19 is that part of the soil? 20 I got kicked in the leg; okay? I take it it's not the 20 A. If I remember correctly, we call this CDG, completely 21 latter. I take it it's the first one. Are you talking 21 deposited granite. 22 about rigidity? 22 O. Decomposed? 23 23 A. Actually, stiffness and rigidity are related. Stiffness A. "Decomposed", okay. Completely decomposed granite. 24 24 is a value to quantify rigidity. Q. Completely decomposed granite, yes. I don't think CHAIRMAN: Ah, okay. That's interesting. Thank you. 25 I need to trouble you to identify each layer but my Page 110 Page 112 MR CHEUK: Yes, Mr Sung, you may carry on. 1 understanding is that at the top those particles will be 1 2 2 A. Okay. Let us go to J3337. In step 1, we did most refined, and at the bottom those soil particles 3 3 a modelling. Here, this is a step 2 modelling. We call will be most solidified. Is that a fair 4 this Plaxis structural modelling software. 4 representation --5 Here, you can see we do a simulation. The east slab 5 A. Yes --6 diaphragm wall and the west diaphragm wall, EWL slab and 6 Q. -- in general terms? 7 A. -- in general terms. NSL slab, all these are here. In this modelling, we 8 would also use it to do construction sequencing. At Q. Please carry on. 9 9 A. After doing the analysis -- well, actually, with regard Hung Hom Station, we use the top-down construction 10 method. We would build the diaphragm walls on the two 10 to the east and west diaphragm wall and the EWL slab, we 11 have designed fixed joints for them. Therefore, we have 11 12 considered soil load and water load in this model, and 12 Q. Yes, can I pause you there. Can you explain in simple 13 13 terms, this Plaxis analysis, what is its purpose? Is it the fixed end moment and the connection moments have to 14 14 also again to assess the rigidity or stiffness? be taken out for the third step, when we do slab 15 A. This modelling is used because excavation is involved. 15 assessment. 16 Q. Yes. And --So, in this modelling, we would put in the soil load --16 O. Soil load? 17 COMMISSIONER HANSFORD: It might be helpful -- although we 17 A. The soil load, the water load. With the two loadings, 18 don't need a full explanation, it might be just helpful 18 19 when we do excavation, what will be the impact on the 19 to understand what "moment" means. I know what it means 20 20 but I think it's probably an important term for others behaviour of the diaphragm wall, we want to do that 21 21 to understand. assessment. 22 Q. I try to summarise, if I can. Basically, this is again 22 A. Maybe I can put this in simple terms. When an article 23 a sort of computer modelling used to test the function 23 moves, it will bend, the article will be bent and there 24 24 of diaphragm wall. So you put in the value of soil will be a force. In engineering terms, we call this the 25 load, water load, to simulate the actual soil situation, 25 bending moment.

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1	COMMISSIONER HANSFORD: Thank you.	1	A. (In English) Yes.
2	MR CHEUK: Please so again, as I understand your	2	COMMISSIONER HANSFORD: But in the presentation to David
3	evidence, because the EWL connection with the diaphragm	3	Nethercot you just presented this part?
4	wall was a fixed joint	4	A. (In English) Yes. Extract some area for presentation
5	A. (In English) Yes.	5	only.
6	Q so there is a need to understand the turning/bending	6	COMMISSIONER HANSFORD: By way of example. The reason you
7	force of that joint, whether it can resist the loading	7	presented this was an example of what you'd done
8	or the bending force. So this is also part of the	8	elsewhere; is that correct?
9	purpose of this Plaxis analysis; is that correct?	9	A. (In English) Yes. Yes.
10	A. (In English) Yes, yes.	10	COMMISSIONER HANSFORD: Thank you.
11	Q. Please carry on.	11	MR CHEUK: But not the worst-case scenario?
12	A. Okay.	12	A. (In English) I'm not sure but I don't think so. Just
13	Let us go to J3338. This is a plan of the EWL slab.	13	an example.
14	As we have seen, the white parts are openings on the	14	Q. Please carry on.
15	slab. From Plaxis, we know the bending force, and on	15	A. Let's go to J3339. This is a summary table. In this
16	the top and at the bottom we will apply the bending	16	summary table, we explain all the load cases at the
17	force to the SAFE model. Why do we use the SAFE model?	17	Hung Hom Station. "Load cases" mean what loading can be
18	This is because the loading on all EWL slab can be	18	found in this station. We have dead load, live load,
19	placed here according to the bending force from the	19	seismic load, uplift, soil load, water load; all kinds
20	Plaxis model. Then we can do an analysis of the EWL	20	of loadings will appear here. We will see 1.4, 1.6,
21	slab.	21	1.76 and other factors. In our industry, we call these
22	Q. Again, I will try to summarise your evidence. First of	22	load factors. Load factors and load cases have to be
23	all, before I summarise, is it correct that we see the	23	combined and they are load combinations and then we can
24	gridline 26 to 33, that corresponds to gridlines	24	have an ultimate limit stay design.
25	A. (In English) Yes.	25	Q. Again I try to summarise your evidence. Basically this
	Page 114		Page 116
1	Q of the project? Secondly, what we are looking at	1	is a table which summarises the load to be applicable to
2	here is again the EWL slab	2	the slab and the diaphragm wall.
3	A. (In English) Yes.	3	A. (In English) Yes.
4	Q with some other openings, and we see some black-line	4	Q. We probably don't need to go into the details of each
5	arrows here. These black-line arrows are the moment	5	loading information. Please carry on.
6	force that you talked about; is that right?	6	COMMISSIONER HANSFORD: Actually, I'm happy for Mr Sung to
7	A. (In English) From Plaxis.	7	carry on, but I think we ought to just briefly
8	Q. From Plaxis analysis. You obtained those moment force	8	understand load factors and load cases.
9	values from the Plaxis analysis and then apply it to	9	MR CHEUK: Yes.
10	another computer model called SAFE, to this particular	10	A. Okay, load cases well, I can say they are working or
11	piece of slab, to see again the performance of that	11	actual load. In the Code of Practice or in the
12	particular slab was corresponding with the design or	12	Buildings Ordinance, what loading is required to be
13	not. Again, if it passes, it means that the design was	13	used? As for load factors, under the Code of Practice,
14	okay?	14	on top of load cases, we have to apply a load factor for
15	A. (In English) Yes.	15	different load cases. Say, for example, for dead load,
16	COMMISSIONER HANSFORD: And can I ask, was this particular	16	we would use 1.4 as a load factor. For live factor we
17	location, gridlines 26 to 33 was this selected	17	use 1.6, and in the Code of Practice it is defined how
18	because it's a worst-case, because it's got so many	18	load combinations should be done.
19	large openings; is that the reason?	19	COMMISSIONER HANSFORD: So these are directly from the Code
20	A. (In English) No. Actually, for area B and C, the whole	20	of Practice?
21	station has model.	21	A. Yes.
22	COMMISSIONER HANSFORD: This is just sample?	22	COMMISSIONER HANSFORD: Thank you.
77	A. (In English) Extract some area for presentation only.	23	CHAIRMAN: And when you say 1.4 or 1.6, what measurement are
23			
23 24 25	COMMISSIONER HANSFORD: Right. So this process was applied to the whole slab?	124	you using? A. (In English) This factor is also come from the Code of

Page 117 Page 119 1 Practice. Actually, in different countries have 1 MR CHEUK: To model the structure. 2 different load factors. 2 For example, we see the first top left-hand corner, 3 CHAIRMAN: I appreciate that. I'm just thinking 1.4 ounces? 3 1.4, is that --4 1.4 mega pressures sideways? I just don't know the --4 A. (In English) Load factor. 5 COMMISSIONER HANSFORD: 1.4 times. 5 Q. -- the load factor you mention? 6 MR CHEUK: It's a safety factor, as I understand. 6 A. Yes. CHAIRMAN: 1.4 times what? 7 Q. Thank you. Okay. 8 A. (Chinese spoken) (In English) Times load case. 8 Shall we move on? COMMISSIONER HANSFORD: Let me check I've got this right. 9 A. We can move on to J3340. In this slide, we can see 10 So the load case is stated in terms of units of load, 10 different areas. There's the green area. That is the 11 and the load factor is a multiplication? 11 East West diaphragm wall. And the two green parts in 12 MR PENNICOTT: It's a multiplier. 12 the middle, we see the EWL slab, and at the bottom we 13 CHAIRMAN: Okay, it's a multiplier for units of load. 13 see the NSL slab. So the grey parts, when we look at --14 A. (In English) Yes. Load factor is the multiplier. 14 to the left of the 3 metre area, there are some existing 15 CHAIRMAN: Thank you. 15 structures, and the grey is the existing structure and 16 MR CHEUK: Can we go to the left. Can we take one example 16 green is the new-built structure. 17 so that everybody can have some idea. 17 So you can see the left and the right we have some 18 For example, "SDL" at the top left-hand corner, 18 arrows, so that is the direction of the loading that we 19 "SDL1", what does that mean? 19 apply. The lateral load will be the soil and water 20 A. In our industry we call it superimposed dead load. 20 load. 21 Q. Superimposed dead load. What "dead load" usually refers 21 Q. So we see on the right -- I'll try to summarise it --22 to, for example, is the concrete structure --22 this is entitled "Critical load case". 23 23 A. (In English) Self weight, maybe. A. (In English) Yes. 24 Q. -- itself, the dead load. Self weight. 24 Q. Basically, in this slide, it's considering some more 25 For example, the fourth column, "COLDL", what does 25 important loading situation? Page 120 Page 118 1 that stand for? A. (In English) Yes. 2 A. In the EWL slab, actually it will support certain 2 Q. On the right-hand side, we have 1.4 and then "(soil plus water load)". The 1.4 is a load factor that you 3 3 columns on top of it, and the column's loading is here. 4 O. Ah, column dead load. 4 previously mentioned. 5 A. This is column dead load. 5 A. (In English) Yes. 6 Q. The next column we can see, it says "COL", which means 6 Q. And soil load and water load, ie those forces exerted by 7 column, and "LL" means live load? 7 soil and water on the structure? 8 A. Yes. A. (In English) Yes. 9 Q. For example, in terms of first row, "U1", what does that 9 Q. Then plus 1.4 DL, that's dead load? 10 stand for? 10 A. (In English) Yes. A. We assign a load combination code. We said that we Q. Then plus 1.6 LL, that is the live load? 11 11 12 would be working out load combinations. In the 12 A. (In English) Yes. 13 modelling, we would assign a code or a name to these. 13 Q. It's the critical load combination at the support. So 14 Q. Basically it's a label for some combination of loading 14 basically you say the force calculated here is use 1.4 15 that you or Atkins adopted to test the structure? 15 times a soil load and water load, plus 1.4 times the 16 A. (In English) Yes. dead load, plus 1.6 times the live load? 16 17 Q. And there are various combinations of such loading and 17 A. (In English) Yes. 18 each one, you would give it a label? 18 Q. Then you apply all this combination of forces to the 19 A. (In English) Yes. 19 structure and to see how it performs? 20 Q. For example, U1, U2, U3, U4? A. I should put it this way. The load combinations, you 20 21 21 A. (In English) Yes. saw the different combinations in the previous slide, 22 22 Q. That's all the combinations of loading? and after we do the assessment we see the critical load case, it should be 1.4 of soil plus water load and then 23 COMMISSIONER HANSFORD: Sorry, when you say to test the 23 24 structure, you mean to model? 24 1.4 dead load, 1.6 live load.

25 COMMISSIONER HANSFORD: So what I'm taking from this

A. (In English) Yes, to model the structure.

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Commission of Inquiry into the Diaphragm Wall and Platform Slab Construction Works at the Hung Hom Station Extension under the Shatin to Central Link Project Page 121 1 please tell me if I've got it right -- is you've A. (In English) Yes. 2 modelled various combinations and from that modelling 2 Q. In other words, those rebars at the bottom mat in that 3 you've identified that this is the worst-case? 3 4 COMMISSIONER HANSFORD: You call it critical load case, but 5 5 6 in layman's language this is the worst-case? 6 7 A. (In English) Yes. 7 8 COMMISSIONER HANSFORD: Consequently, if it works for the 8 9 worst-case, it must work for everything else; is that 9 10 the theory? 10 11 A. (In English) Yes. 11 12 MR CHEUK: Can you also explain the second bullet point on 12 13 the right-hand side -- it says: 13 14 "Soil water load and dead load dominate the bending 14 15 moment, which contribute more than 90 per cent in area B 15 16 and area C." 16 17 A. Okay. So in this part, let me give you an example. If 17 18 the bending moment, the largest bending moment, is let's 18 19 say 1,000, and due to soil, water load and the dead 19 20 load, so that would make up 900 of the 1,000, and 20 21 10 per cent is only contributed by the live load. 21 22 Q. I see. I will try to summarise again. What your 22 23 23 analysis results is that in areas B and C, over 24 90 per cent of the loading comprises soil/water load and 24

Q. In other words, those repairs at the bottom that in that
zone actually do not take any loading, because rebars
only take tension but not compression; is that your
understanding?
A. Well, you can say that in the compression zone, it would
be it would have to be contributed by the concrete
it would have to be sustained by the concrete. But the
code requirement says that even if you don't have
compression rebar, you should still have some tension
reinforcement of some 50 per cent and we have
a ductility section that describes that and the meaning,
according to our understanding, is due to seismic
considerations.
So you cannot say that the compression rebar is
unnecessary.
Q. I see. So, if I try to understand your evidence, it's
that the rebars at the bottom mat was there for the
purpose of taking seismic load, rather than the normal
tension?
A. Well, it should be a detailing requirement.
Q. As required in the code?
A. (In English) Yes.
Q. That I understand, as required in the code. I think
everybody accepted that. But I was wondering the

rationale behind this code, as you understand it. As

4 the weight of passengers? 5 A. (In English) Yes. 6 Q. And the weight of the train; does that include the live 7 load? 8 A. (In English) Yes. 9 Q. So what this shows is that the critical loads are not 10 the live load, but the soil, water and dead load? 11 A. (In English) Yes. Q. Thank you. Can you move on, if you have --12 13 A. Okay. We should have a last slide on the day of the 14 presentation --

Q. And what live load usually comprises is, for example,

the dead load. The remaining 10 per cent is what we

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call live load.

Q. Is that correct?

A. (In English) Yes.

18 mat of rebars? 19 A. (In English) Yes. 20 Q. One suggestion that came out in the documents I read is

Q. I also understand that -- there's one question I would

like to ask you is that you probably have knowledge that

the 3 metre slab consists of the top mat and the bottom

21 that the bottom mat was the compression zone, ie the 22 expected force in that part of the slab was compression 23 rather than tension? 24 A. (In English) Yes.

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I understand your evidence, the rationale of this code is really for seismic loading, rather than the normal tension and compression in ordinary cases. Is that correct? A. Well, but that is a ductility -- it's defined in the ductility section of the code, and our understanding is that sometimes we do mainland projects, they might be located in seismically active areas and they have similar requirements, and we feel, when there are seismic effects, there might be bending, but these are detailing requirements. It's not something that is calculated. Q. As I understand from your answers, you are agreeing with my proposition, right; the bottom mat's purpose, as you understand, was really to take the seismic load? Or you are not sure? COMMISSIONER HANSFORD: Mr Cheuk, I think what Mr Sung is telling us is the bottom reinforcement is to comply with the code. MR CHEUK: Yes. COMMISSIONER HANSFORD: And the code may be required for seismic loading but it may be required for other things as well. 25 MR CHEUK: Yes.

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1	COMMISSIONER HANSFORD: I'm not quite sure that's a question		A. On the left-hand side, we have some socket H structures.
2	for this witness.	2	Q. Socket H-pile?
3	MR CHEUK: Yes. That's why I understand he might not be	3	A. Socket H steel piles, and on K1 we have the diaphragm
4	completely can tell us the purpose of that code	4	wall.
5	requirement.	5	Q. And how about okay.
6	COMMISSIONER HANSFORD: Maybe that's a question for the	6	COMMISSIONER HANSFORD: Just so that I can understand it
7	experts when we get there.	7	forgive me asking so many questions so what we're
8	MR CHEUK: Yes, certainly.	8	seeing here is the two diaphragm walls, the eastern one and the western one, a barrette in the middle
9	If I can go to this is the PowerPoint slide	9	•
10	number 9. I understand there's an animation originally	10	A. (In English) Yes.
11	prepared at the time of presentation.	11	COMMISSIONER HANSFORD: and a socket H-pile, which is
12	A. (In English) Yes. Q. Can we show the PowerPoint slide number 9.	12 13	a steel pile
13 14	-	14	A. (In English) Yes. COMMISSIONER HANSFORD: on the left-hand side of the
15	Look at the screen. Actually, it shows the construction sequence.	15	western diaphragm wall; is that
16	A. (In English) Yes.	16	A. (In English) Yes.
17	Q. Can we go through that so that it might help everybody	17	COMMISSIONER HANSFORD: So those are the four elements we
18	to understand the construction sequence in this case.	18	see here?
19	A. (In English) Okay.	19	A. (In English) Four vertical elements.
20	Q. This is, I suppose, step 1	20	COMMISSIONER HANSFORD: The four vertical elements that have
21	A. (In English) Yes.	21	been constructed at this stage?
22	Q originally, before the grey part was the existing	22	A. (In English) Yes.
23	structures.	23	MR CHEUK: Next.
24	A. (In English) Yes.	24	A. Okay. Since this is a top-down construction method,
	COMMISSIONER HANSFORD: And the green part?	25	after completing the diaphragm wall we will excavate to
	Page 126		Page 128
1	MR CHEUK: There's already some green part. What are those	1	the bottom of the EWL and then we will build the EWL
2	green parts?	2	slab.
3	A. These are because we were we had permanent	3	Q. In documents we came across the level minus 0.5mPD.
4	structure, that was in green, that's why we have some	4	That is the level that the soil should be excavated to,
5	green, and at this stage everything was already	5	in order to construct this EWL slab.
6	existing.	6	A. (In English) Yes.
7	COMMISSIONER HANSFORD: So why is it in green? It's just		Q. That will be slightly below the soffit of the EWL
8	a colour code; it's not significant? Everything on this	8	slab
9	slide is existing?	9	A. (In English) Yes.
10	A. (In English) Yes.	10	Q in order to provide space
11	COMMISSIONER HANSFORD: Okay. Thank you.	11	A. (In English) Working space.
12	MR CHEUK: Can we move to the next yes.	12	Q for workers, for the construction?
13	A. In this step, we see the left, on the East Wall, the	13	A. (In English) Yes.
14	east diaphragm wall and the west diaphragm wall, they	14	Q. Also, as I understand from the documents, the method of
15	have been completed, and in the middle we have barrettes	15	excavation at this stage is what we call open-cut, ie,
16	foundation that were also completed.	16	basically, you are just digging out the soil from above;
17	Q. Pausing here, can you tell us which part is the	17	there's no need to dig out any tunnels or anything in
18	barrette?	18	assistance of the excavation.
19	A. (In English) Next to grid N, on the left-hand side of	19	A. It's not needed. A tunnel is not needed, because the
20	grid N.	20	diaphragm wall is very stiff, so when you excavate to
21	Q. Can you tell that colour by reference to gridline?	21	the soffit in the EWL, you need to dig a little bit more
22	A. (In English) Gridline N, the left-hand side.	22	for working space, and in our analysis and in our
23	Q. The left-hand side of gridline N, that's the barrette?	23	modelling it was okay, that's why we could dig so deep.
24	A. (In English) Yes.	24	Q. Okay. Next, please.
25	Q. And how about the three other green structures?	25	COMMISSIONER HANSFORD: So, at this stage, everything below

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	Page 129		Page 131
1	the	1	COMMISSIONER HANSFORD: And between the NSL slab and the EWI
2	A. (In English) EWL slab.	2	slab is an open box?
3	COMMISSIONER HANSFORD: EWL slab is unexcavated soil		A. (In English) Yes.
4	A. (In English) Yes.	4	COMMISSIONER HANSFORD: Right. Okay.
5	COMMISSIONER HANSFORD: Thank you, yes.	5	MR CHEUK: Please carry on.
6	MR CHEUK: That's why it's called the top-down approach?	6	A. (In English) Next stage.
7	A. (In English) Yes.	7	(Via interpreter) At this stage, as I said, the grey
8	Q. Okay.	8	columns are the existing columns. You can see that we
9	A. Then the sequence is after completing the EWL slab, one	9	can use the EWL slab as a transfer to support the
10	of the functions, when you use the top-down method, is	10	columns in the existing structure in grey, and then,
11	a propping system. You continue to excavate and we	11 12	within the space between EWL and NSL, that structure
12	still have an intermediate stage but it's not shown		will be demolished.
13	because we want to illustrate the sequencing. We continue to excavate down to the NSL soffit level and	13	Q. Okay.
14		14	COMMISSIONER HANSFORD: So, at this point, the load from above, the existing load from above, goes down into the
15	then we will do the concrete casting for the NSL.	16	EWL slab and gets transferred across
16 17	(Chinese spoken) Q. Pause there first. Can I ask this question: after you	17	A. (In English) Yes.
18	finish the NSL slab, we can see the slab would join	18	COMMISSIONER HANSFORD: and then down into the diaphragm
19	together the east diaphragm wall and the west diaphragm	19	walls?
20	wall, so this EWL slab will form a strut?	20	A. (In English) Yes. Yes.
21	A. (In English) Yes.	21	MR CHEUK: And at this point the EWL slab's function is
22	Q. This strut is a necessary component or element to	22	similar to a transfer plate?
23	facilitate the further excavation down into the soil, in	23	A. (In English) Yes.
24	order to construct the NSL slab?	24	Q. Okay. Next.
25	A. (In English) Yes.	25	A. (Chinese spoken).
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1		,	
1	Q. So, after the completion of this EWL slab, what the workers need to do is to further excavate the soil all	1	Q. That will be the easy part.
2		2	A. Then they will work on the other structures. MR CHEUK: I think that's the end of the construction
3	the way down to the soffit of NSL slab?	3	
4	A. (In English) Yes.	4 5	sequence. Thank you for your explanation. COMMISSIONER HANSFORD: Sorry, can we just go back one
5	Q. And again, slightly below that soffit, in order to	6	stage, one more right, okay. Now take us on a stage,
6 7	provide working space; is that correct? A. Well, in normal circumstance, we can cast against the	7	one more stage, go forward a stage that's it and
8	soil. We do not need further working space.	8	now one more. No, no, forward. The next one.
9	Q. So the working space will be none or very limited?	9	Right.
10	A. (In English) Very limited.	10	This is the OHE slab, is it?
11	Q. Then, after the excavation down to NSL soffit, workers	11	MR CHEUK: OTE, over track exhaust.
12	can start to construct the NSL slab?	12	COMMISSIONER HANSFORD: The OTE that we see being created
13	A. (In English) Yes.	13	So that's created at that stage, and then we've got this
14	Q. Just like the situation of the EWL slab?	14	discussion regarding monolithic detail, but perhaps
15	A. (In English) Yes.	15	we will come to that later.
16	Q. Then you can see, after this process, what we can see is	16	MR CHEUK: I should clarify, that was the original design
17	on the screen. We have the two diaphragm walls, and in	17	intent.
18	between we have on top we have the EWL slab and then	18	A. (In English) Yes.
19	you have the NSL slab.	19	MR CHEUK: But not the actual happened on the site.
20	COMMISSIONER HANSFORD: Sorry, the slide keeps flicking	20	COMMISSIONER HANSFORD: Okay.
21	Can we stop at that point? That's it.	21	MR CHEUK: I think that's all I need you to
22	Sorry, so again, just to make sure that I'm clear	22	COMMISSIONER HANSFORD: Actually, sorry forgive me, I've
23	and everyone's clear. At this point, after the NSL slab	23	got all the questions what is the purpose of the
24	is cast, then beneath the NSL slab is unexcavated soil?	24	H-pile to the left? What is its purpose?
		ا م	4 0 4 1 6 4 4 4 4 1 1 1 1
25	A. (In English) Yes.	25	A. On the left, there are other new structures to be built.

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- That's why we need to do new piling, new foundation. 1
- 2 This has nothing to do with the Hung Hom Station,
- 3 actually. This is not related to the EWL slab or the
- 4 diaphragm walls.
- 5 (In English) The left-hand side piling is only for
- 6 some new structure.
- 7 COMMISSIONER HANSFORD: So adjacent to the Hung Hom Station
- 8 there's other works going on?
- 9 A. (In English) Yes.
- 10 COMMISSIONER HANSFORD: And the purpose of the H-pile is to
- 11 support that?
- 12 A. (In English) Yes.
- 13 COMMISSIONER HANSFORD: Okay.
- 14 MR CHEUK: Thank you for your presentation. I will now just
- 15 go very briefly to a separate topic.
- 16 In your witness statement, J6/4540, you deal with
- 17 the as-built construction details here, from
- 18 paragraphs 31 to 35.
- 19 A. (In English) Yes.
- 20 Q. Can I first ask you -- you mentioned about the joint
- 21 statement by Leighton and MTRC produced on around
- 22 16 November 2018.
- 23 A. (In English) Yes.
- 24 Q. Were you involved in that exercise?
- 25 A. Can you please clarify your question?

1 "Existing couplers and rebars to be removed". We see

- 2 the annotations there; can you see that, at the very
- 3 top?

6

- 4 A. (In English) Yes.
- 5 Q. Then we see also another annotation, "Concrete to be
 - hacked off and recast with slab"?
- 7 A. (In English) Yes.
- 8 O. Okay. This was the change that you might have
- 9 understood by now, what we call the second change.
- 10 A. (In English) 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. These four types are typical sections. If we want to
- 17 know how many rebars are in the top reinforcement, we
- 18 should refer to slab reinforcement drawings.
- 19 Q. I see. That will be included in the subsequent pages;
- 20 do I understand correctly?
- 21 A. (In English) 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. (In English) Yes.

- COMMISSIONER HANSFORD: Do we have them here? Are they in
- 2 this bundle? Can we just see one typical one?
- 3 MR CHEUK: Can we see -- Mr Sung, I wonder if you can help
- 4
- 5 A. (In English) Okay.
- 6 Q. -- on this. Do you have a hard copy in front of you?
- 7 A. (In English) Yes.
- 8 Q. For example, if you want to see how many layers
- eventually were constructed in relation to type 1, where 9
- 10 can we find it?
- A. (In English) Please go to 25552. 11
- 12 (Via interpreter) First of all, we should look at
- 13 this drawing called "Coupler schedule". It specifies
- 14 what type of connection details are used at which panel.
- 15 Q. Yes. Can you help us a little bit more? It's not
- absolutely clear, as we can see on the screen. 16
- 17 For example, there are some drawings on the
- 18 right-hand side -- would that help you?
- 19 A. (In English) You can refer to the table, the right
- 20 column, the right-most column on the table.
- 21 COMMISSIONER HANSFORD: The left-hand side.
- MR CHEUK: Yes. 22
- 23 A. (Chinese spoken).
- 24 Let us talk about the first table. At the last
- 25 column, you have the word "Type". The type here refers

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Q. Yes. Were you involved in the exercise of producing the

- 2 joint statement by Leighton and MTRC and the drawings
- 3 attached to that statement?
- 4 A. As for the drawings preparation, that was our
- 5 responsibility, but we did not work with Leighton or
- MTRC on the joint statement. We did not communicate 6
- 7 with them.
- Q. And were you personally involved in those drawings, in 8
- 9 preparation of those drawings?
- 10 A. Yes.

- 11 Q. Now, those drawings were prepared on the instruction of
- 12 Leighton; correct?
- 13 A. (In English) Yes.
- 14 Q. And given to team B?
- 15 A. (In English) Yes.
- 16 Q. If we can turn up those drawings: B19/25515.
- 17 A. (In English) Okay.
- 18 Q. Were you involved in the preparation of this drawing?
- 19 A. (In English) Yes.
- 20 Q. Again, the next page, 25516, were you also involved?
- 21 A. (In English) Yes.
- 22 Q. If we look at 25515, we see it sets out four types of
- 23 construction joint details.
- 24 A. (In English) Yes.
- Q. For example, if we look at type 1, basically it says

Page 137 Page 139 1 back to the typical sections in front. 1 final as-built construction details, as from this set of 2 2 Q. So if we look, for example, at the first table, on the drawings --3 left-hand side, and the last column, it is the type --3 A. (In English) Yes. 4 A. (In English) Yes. 4 Q. -- Atkins helped to prepare on the instruction of 5 Q. -- that we have seen, which includes type 1, type 2, 5 Leighton recently, in recent months? 6 type 3, type 4? 6 A. (In English) Yes. 7 A. (In English) Yes. 7 Q. The last question I have for you is, according to your 8 Q. And these types are referable to the two sheets that we 8 experience, is this a normal way to prepare as-built q 9 have seen? drawings? 10 A. (In English) Yes. 10 A. I should put it this way. Some activities require Q. Then, if we want to know, for example, type 1, how many 11 11 as-built drawings. For example, foundations. After the 12 12 layers of rebars were there, we can check against this foundation is built, we need to submit an as-built 13 13 table, and that will be shown -- for example, next to record for --14 the type we see "Bottom", and then next to the bottom we 14 Q. It's my fault. We are at cross-purposes. As 15 see "Top"? 15 I understand from your witness statement, during the 16 A. (In English) Yes. 16 course of preparation of these as-built drawings, you Q. Those number of layers will be recorded? 17 17 relied on some site photos and some other 18 A. This table only shows the number of couplers, and if you 18 drawings/sketches provided by Leighton; correct? 19 look at the first column, "Top", it denotes N/A, meaning 19 A. (In English) Yes. 20 all couplers have been removed and straight bars have 20 Q. I am wondering, is this normal practice to rely on these materials instead of, you know, having contemporaneous 21 been used, and if you look at "Bottom" nothing has 21 22 changed. 22 updated drawings to start with? 23 23 Q. We see it's empty. A. I should put it this way. Normally, we won't work 24 24 CHAIRMAN: Sorry, the little cloud, like from a kids' book, backwards. It should be a continuous process, we will what does that stand for? That stands for "not 25 25 be updating the situations we encounter on the site. Page 138 Page 140 applicable"? 1 Any changes that we encounter, it should be a continuous 2 2 A. (In English) No, no, no. The cloud just shows the process. 3 change compared to the previous drawings. 3 Q. And the normal process, as I understand your evidence, MR CHEUK: It shows no couplers, through-bar? 4 is that it should start contemporaneously, at the time 5 COMMISSIONER HANSFORD: No, no. 5 of the changes? 6 A. (In English) No, I think the cloud in engineering is 6 A. (In English) Yes. 7 that we show the change between this version and the 7 Q. Then you continue to update those changes as time goes 8 previous version. 8 along? 9 CHAIRMAN: That shows the change. A. (In English) Yes. Q. And at the final stage, you don't need to go 10 COMMISSIONER HANSFORD: So what you are telling us, Mr Sung, 10 11 is the cloud is a form of highlighting? 11 retrospectively to check all the photos and other 12 A. (In English) Yes. Highlight the change. 12 records in order to reconstruct everything? 13 CHAIRMAN: And the little triangular sign which looks like 13 A. (In English) Yes. 14 something you put down if your car breaks down? 14 Q. That should be only some miscellaneous updating by the 15 A. (In English) This is the revision number. For every 15 time of the final stage? 16 drawing, when we update the drawing, we need to update 16 A. (In English) Yes. 17 the revision. 17 MR CHEUK: I have no further questions. 18 COMMISSIONER HANSFORD: So the cloud is highlighting the CHAIRMAN: Does anybody have any questions? 18 19 change and the triangle is identifying the revision 19 MR CHOW: Mr Chairman, I have a few questions for Mr Sung, 20 number --20 but I promise I won't ask anything about the SAP2000 or 21 A. (In English) Yes. 21 Plaxis analysis or any of the load cases. I'm sure all COMMISSIONER HANSFORD: -- where that change has been made? 22 22 my learned friends in this room won't need any further 23 A. (In English) Yes. 23 education on these topics. COMMISSIONER HANSFORD: Okay. 24 24 Cross-examination by MR CHOW 25 MR CHEUK: So that's the way we can locate and identify the Q. Good afternoon, Mr Sung. I have just one or two

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- 1 questions. What I'm interested in is -- one of the
- 2 issues that interests the government is on the question
- 3 of whether the changes made to the top of the east
- 4 diaphragm wall require prior consultation of BD before
- 5 the execution of the works.
- 6 Now, I see that in paragraph 26 you apparently
- 7 provide some expert opinion on this matter. So can
- 8 I just quickly take you to that particular paragraph.
- 9 A. (In English) Okay.
- 10 Q. Bundle J, page 4539, please. We've got it.
- Here you say, on the basis of the two sketches that
- 12 you have been provided by Lo & Lo -- perhaps it is
- useful for us to quickly go to have a look on the two
- sketches. Bundle J1, page 8.
- 15 The first sketch shows the original design --
- 16 A. (In English) Yes.
- 17 Q. -- where we see some couplers and some horizontal
- reinforcement on top of the east diaphragm wall, and the
- 19 EWL slab and the OTE slab on each side of the wall were
- to be connected through the couplers; right?
- 21 A. (In English) Yes.
- 22 Q. Then turn over the page, page 9. This is a different
- 23 arrangement which involved replacing the couplers with
- 24 straight bars and also trimming down part of the
- 25 diaphragm wall; right?

1 usual private building projects governed by the

- 2 Buildings Ordinance?
- 3 A. (In English) Yes.
- 4 Q. So, for those projects, this sort of changes or works to
- 5 be carried out to a built diaphragm wall, although you
- 6 consider as a minor amendment, but you would still need
- 7 to make submission to the Buildings Department and
- 8 obtain consent?
- 9 A. (In English) Yes.
- 10 Q. And before the execution of the work; am I correct?
- 11 A. (In English) Yes.

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- 12 Q. Okay. What I'm interested to further explore with you
- is the next sentence. You go on to say:
 - "However, as the project had an IoE, provided that
- the structural stability was not affected ..."
- Now, here you mention about structural stability not
- being affected. Is it because of what is provided for
- in the practice note for the authorised person ADM-19?
- 19 A. (In English) ADM-19? No.
 - (Via interpreter) No.
- 21 Q. Perhaps to help you -- it's worthwhile to go to have
- a look at the PNAP ADM-19, bundle H20, page 40065.
 - The reason why I refer you to this practice note is
- 24 because Leighton's witnesses referred to this practice
 - note as the basis for saying that the changes that we

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- 1 A. (In English) Yes.
- 2 Q. So this is the deviation that you are talking about in
- 3 this paragraph.
- 4 Then you go on to say:
- 5 "In my experience, the design principles do not
- 6 change as it is a substitution of couplers for straight
- 7 through reinforcement bars which would not change the
- 8 behaviour of the joint connection between diaphragm wall
- 9 and slab. However, I understand there was also a change
- to the as-built diaphragm wall ..."
- Pausing here, the change to the as-built diaphragm
- wall that you refer to is the trimming down of part of
- the completed diaphragm wall; is that right?
- 14 A. (In English) No.

15

- (Via interpreter) In my witness statement, I was trying to say if you knock down a wall, there are
- trying to say if you knock down a wall, there arechanges to the diaphragm wall, and it would also mean
- a change to the as-built diaphragm wall.
- 19 Q. Okay. So that is basically when I meant earlier.
- Then you said:
- "... and this would normally be a minor amendment
- 22 which for a non-instrument of exemption project should
- 23 normally be submitted to BD for approval and consent."
- Now, here, when you refer to "non-instrument of exemption", am I right to take it that you refer to the

- 1 are now talking about do not go to impact on the
- 2 stability of the structure, and for this reason, because
- of a procedure implemented by the Buildings Department,
- 4 that sort of change does not require prior approval and
- 5 consent of the Buildings Department.
- 6 A. But the foundation does not have ADM-19. Foundational
 - changes are not included in ADM-19.
- 8 Q. Right. I'm glad that you agree with me. So do you
- 9 agree with me that the changes now -- the changes that
- 10 have been made to the top of the east diaphragm wall
- would be, as far as you are concerned, considered as
- a change made to the foundation?
- 13 A. (In English) Yes.
- 14 Q. And because of that, any leeway allowed for by the
- Buildings Department under this practice note would not
- 16 apply?
- 17 A. Of course.
- 18 Q. Thank you. Then can you explain what you were trying to
- say at the last part of paragraph 26, where you say:
- 20 "... contest would not be required and it would be
- 21 normal to consult with BD as to the change and it would
- be at the discretion of the CP when this amendment
 - submission would be submitted."
- 24 A. Okay. This last sentence means that my understanding --
- a consultation project does not need consent. As long

Page 145 Page 147 1 as BD accepts your drawings, you can commence work. So, 1 foundation. 2 in this case, if there are any changes, then we could 2 A. (In English) Yes. 3 have a talk with the BD officer and ask do we need --3 Q. Can I ask you to look at bundle C35, page 26577. That 4 making a minor amendment to the diaphragm wall, do we 4 is a Code of Practice for Foundations issued by the 5 need a submission for A&A work? Because under the 5 Buildings Department; do you see that? 6 Buildings Ordinance, if we encounter similar situations, 6 A. (In English) Yes. 7 these we need to make an A&A submission rather than 7 Q. Are you familiar with this document? 8 a diaphragm wall amendment. 8 A. (In English) Yes. 9 Q. And for this we would expect the consultation would be 9 Q. Can I ask you to look at 26585. There we see the 10 carried out before the execution of this amendment, is 10 definition of "Foundation": 11 that right, or the execution of the alteration work? 11 "That part of a building, building works, structure 12 12 A. (In English) Before or after? or street in direct contact with and transmitting loads 13 O. Before. 13 to the ground." 14 A. In this case, I would feel we need to consult with BD 14 Do you see that? 15 and have their approval before we start work. 15 A. (In English) Yes. 16 CHAIRMAN: Sorry, what's "A&A"? 16 Q. Can I ask you then to turn to one of the slides that we 17 A. (In English) Addition and alteration work. 17 have been looking at, in bundle J4, maybe 3340. 18 MR CHOW: Thank you very much, Mr Sung, I have no more 18 You see the two green vertical structures with 19 questions for you. 19 circles; do you see those? 20 20 MR SHIEH: Consequential upon questions made by Mr Chow, A. (In English) Yes. 21 I may have a question or two for Mr Sung. 21 Q. Those are the diaphragm walls; correct? 22 CHAIRMAN: Yes. 22 A. (In English) Correct. 23 23 MR SHIEH: I must preface my question by this observation. Q. They go all the way down to the bottom, where they touch 24 Mr Sung is a witness from Atkins, as a concerned party, 24 soil? 25 25 Mr Sung is not here as an independent expert. Mr Chow A. Or the bedrock. Page 148 Page 146 Q. Or bedrock. 1 skilfully slipped in the words "expert opinion" into his 2 characterisation of Mr Sung's evidence. 2 A. (In English) Yes. 3 3 Q. Yes. And somewhere along the way there is the NSL slab; Now, I wish to preface my question by saying that 4 what I now question this witness on could well 4 do you see that? 5 ultimately be a matter for expert witnesses, but 5 A. (In English) Yes. 6 consequential upon Mr Chow's question I must lay down 6 Q. And above that we have the EWL slab; correct? 7 7 a marker by putting our position. The rest is a matter A. (In English) Correct. 8 of submissions at the end of the day. Q. Where the trimming down or hacking off took place was 9 9 CHAIRMAN: Yes. I think I should say I certainly haven't really within the circles, correct, or near the top of 10 accepted the evidence of this witness as being expert 10 the circles; correct? 11 evidence. He's obviously a knowledgeable person, but 11 A. (In English) Yes. 12 a great many witnesses are knowledgeable without being 12 Q. I would suggest to you that that part of the diaphragm 13 13 wall where the hacking took place was not part of the experts, and the way I have read it is that he's here to 14 14 foundation; do you accept that? explain these diagrams, which may be of use to the 15 experts who will perhaps later be called. I hope 15 A. I do not agree, because when you give acceptance --16 well, in the BD's acceptance letter, this will be 16 17 identified as the foundation or the superstructure. In 17 MR SHIEH: Yes, that is extremely helpful, but as I said, 18 consequential upon the way in which the government has 18 this case, as far as the diaphragm walls are concerned, 19 sought to spin the questions --19 in the BD's approval letter, this is shown to be at the 20 20 CHAIRMAN: Yes, of course. foundation. 21 MR SHIEH: -- I promise to be extremely short, and by way of 21 Q. That is your answer; right? 22 laying down a marker only. 22 A. (In English) Yes. 23 CHAIRMAN: Good. 23 MR SHIEH: Chairman and Professor, as I said, my question 24 Cross-examination by MR SHIEH 24 arose simply because of the way Mr Chow put a question.

CHAIRMAN: Yes.

MR SHIEH: Mr Sung, you talked about works being done to

1	Page 149		Page 151
_	MR SHIEH: I'm not yet fully prepped by way of testing the	1	Futures matter in Central, and that was set down some
2	evidence by way of expert testimonies so I hope I have	2	time ago and we haven't been able to move it. It's at
3	laid down an adequate marker so it can't be said that we	3	5.30, but obviously one needs to be there before 5.30,
4	haven't actually picked up that point, but I've got the	4	if possible, so working on the basis that it takes about
5	answer, I've put it, the rest could well be a matter for	5	35 to 40 minutes to properly get there and then to have
6	when the real experts come into the picture.	6	a good look at the papers, I would look to adjourning at
7	CHAIRMAN: Of course. Thank you.	7	4.30 tomorrow, if that's satisfactory.
8	MR BOULDING: Sir, we have no questions for this witness.	8	MR PENNICOTT: Yes, sir. Thank you very much.
9	CHAIRMAN: Yes.	9	CHAIRMAN: My apologies again, but this was something
10	Anything further?	10	already marked in the diary a good time ago.
11	MR CONNOR: Thank you very much, sir. I have no further	11	MR JAT: I'm sure Mr Chairman will find that the costs for
12	questions by way of re-examination of Mr Sung, subject	12	Mr Benjamin Yu to wait for us is going to be more
13	to any final questions that you, Mr Chairman, or you,	13	expensive than all of us here.
14	Professor, might have.	14	MR SHIEH: Mr Yu can't defend himself here, that's the real
15	COMMISSIONER HANSFORD: I've asked all my questions, than		joy of it.
16	you.	16	MR JAT: That's why I said it!
17	MR CONNOR: Thank you very much.	17	CHAIRMAN: Thank you very much indeed. 10 o'clock tomorrow
18	CHAIRMAN: Thank you very much, Mr Sung.	18	morning. Thank you.
19	One thing I should mention to you, and I'm sure you	19	(3.52 pm)
20	know this, but to be an expert witness you have to meet	20	(The hearing adjourned until 10.00 am the following day)
21	certain criteria and be there for a certain purpose.	21	
22	It's no denigration of your very admirable	22	
23	qualifications, all right, that you are not qualified as	23	
24	an expert in this particular set of proceedings.	24	
25	WITNESS: (In English) Okay. I understand.	25	
	Page 150		Page 152
1	CHAIRMAN: Thank you.	1	INDEX
2	(The witness was released)	2	PAGE
3	MR CONNOR: Thank you, Mr Sung.	3	PROF MA SI HANG, FREDERICK (sworn)3
4	MR PENNICOTT: Sir, that's it for today, as far as I'm	4	Examination-in-chief by MR BOULDING3
5	aware.	5	Examination by MR PENNICOTT4
6	CHAIRMAN: Yes.	6	Cross-examination by MR TO30
7	MR PENNICOTT: So far as tomorrow is concerned, there are,	7	Questioning by THE COMMISSIONERS45
8	I believe, three witnesses: Mr Lee from Atkins, WC Lee;	8	MR JOHN BLACKWOOD (affirmed)50
0			
9	and then programmed in are the two witnesses from Pypun,	9	Examination-in-chief by MR CONNOR50
	Mr Mak and Mr Yueng. So those are the three witnesses	9 10	Examination-in-chief by MR CONNOR50 Examination by MR PENNICOTT57
9 10 11	Mr Mak and Mr Yueng. So those are the three witnesses that we have tomorrow, and I'm reasonably confident that	10 11	Examination-in-chief by MR CONNOR50 Examination by MR PENNICOTT57 Cross-examination by MR CHOW80
9 10 11 12	Mr Mak and Mr Yueng. So those are the three witnesses that we have tomorrow, and I'm reasonably confident that we will accomplish those three witnesses tomorrow as	10 11 12	Examination-in-chief by MR CONNOR50 Examination by MR PENNICOTT57 Cross-examination by MR CHOW80 Re-examination by MR CONNOR83
9 10 11 12 13	Mr Mak and Mr Yueng. So those are the three witnesses that we have tomorrow, and I'm reasonably confident that we will accomplish those three witnesses tomorrow as well.	10 11 12 13	Examination-in-chief by MR CONNOR50 Examination by MR PENNICOTT57 Cross-examination by MR CHOW80 Re-examination by MR CONNOR83 Questioning by THE COMMISSIONERS85
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