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<p>1 Wednesday, 28 November 2018 2 (10.02 am) 3 MR RAYMOND DAVID BREWSTER (on former oath) 4 Cross-examination by MR CHOW 5 MR CHOW: Good morning, Mr Chairman. Good morning, 6 Professor. 7 Good morning, Mr Brewster. 8 A. Good morning. 9 Q. My name is Anthony Chow, I represent the government and 10 I have a few questions for you this morning. 11 A. Okay. 12 Q. Before I start, Mr Brewster, I have been listening to 13 your exchange with counsel for the Commission yesterday 14 afternoon, and honestly I have to confess that I have 15 great difficulty in catching what you said. I'm sure it 16 is due to my own deficiency, but for my benefit, would 17 you be kind enough to, when you give your answer, speak 18 slowly. That will help me a lot. 19 A. Okay. 20 Q. Thank you. 21 Mr Brewster, my first question is: are you still the 22 authorised signatory for project 1112, even up to now? 23 A. Yes, I am. 24 Q. In paragraph 8 of your first statement, this is where 25 you deal with the duty and responsibility of the</p>	<p>1 a number of TCPs under the representative; is that 2 right? 3 A. Correct. 4 Q. If I may go on: 5 "Responsibilities and duties of the heads, 6 representatives and TCPs regarding the preparation and 7 execution of supervision plans are set out in tables 4.1 8 to 4.4." 9 Now, the relevant part for the registered contractor 10 is set out in table 4.4 at page 2680. If I can take you 11 to table 4.4, please. 12 Now, table 4.4, the first part sets out the 13 responsibilities and duties imposed authorised signatory 14 by the Code of Practice. 15 For responsibilities, it includes: 16 "-- Assuming overall responsibilities in the 17 appointment of his representative and TCPs. 18 -- Ensuring the full implementation of the 19 supervision plan regarding his own stream. 20 -- Ensuring that non-conformities are immediately 21 acted on and that rectification is carried out 22 forthwith." 23 And insofar as duties are concerned: 24 "-- Compiling his own part of the supervision plan. 25 -- Devising checklists of specific tasks for his</p>
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<p>1 authorised signatory of the project. 2 A. Yes. 3 Q. Are you familiar with the Code of Practice for Site 4 Supervision 2009? 5 A. I am. 6 Q. Can I trouble you to go to the Code of Practice at 7 bundle H8, page 2665. The first provision I would like 8 to take you to is section 4.2 at page 2671. Section 4.2 9 provides that: 10 "The head of the management structure shall have 11 overall responsibility and accountability for their 12 respective functional stream. The representative is 13 directly accountable to the head" -- in the case of the 14 contractor, it would be the authorised signatory -- 15 "whereas all other safety management personnel are 16 accountable to the head through the representative." 17 Yesterday, from my recollection, Prof Hansford 18 raised a question regarding personal representative, so 19 am I right to understand that under the structure, other 20 than you yourself as the authorised signatory, you have 21 another person under you which is your representative 22 on site? 23 A. Yes. I have several AS representatives on site, at 24 different times. 25 Q. I see. So, further down the hierarchy, then we have</p>	<p>1 TCPs. 2 -- Supervising his representative and TCPs. 3 -- Preparing plans, method statement and/or 4 precautionary and protective measures for temporary 5 works categorised as case 2 and/or case 3 under 6 paragraph 4.7 of this Code. 7 -- Notifying the AP of any non-conformities which 8 pose an imminent danger, or cause a material concern for 9 safety. 10 -- Carrying out site [supervision] as necessary." 11 So, during the time of the execution of, in 12 particular, the EWL slab and NSL slab, you were fully 13 aware of the responsibilities and duties imposed upon 14 you, as we have just gone through, were you not? 15 A. Correct. 16 Q. Regarding one of the duties, for "Compiling his own part 17 of the supervision plan", do you accept that the 18 supervision plan here includes both the site supervision 19 plan and the quality supervision plan? 20 A. Sorry, could you repeat that? 21 Q. One of the duties set out in table 4.4 concerns 22 compilation of the contractor's part of the supervision 23 plan, and my question was, by "supervision plan" 24 indicated in the table, it would include both the 25 quality supervision plan and site supervision plan; do</p>

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<p>1 you agree with me?</p> <p>2 A. The SSPs cover safety management which entails both</p> <p>3 safety control and supervision and quality supervision,</p> <p>4 yes.</p> <p>5 Q. So your answer is "yes", you agree with me?</p> <p>6 A. Yes.</p> <p>7 Q. Thank you. So, at the time of the execution of the</p> <p>8 work, while you served as an authorised signatory, did</p> <p>9 you prepare the quality supervision plan?</p> <p>10 A. No, I didn't, because the quality supervision plan was</p> <p>11 prepared by Intrafor in the first place.</p> <p>12 Q. Right.</p> <p>13 A. And that's under a separate AS.</p> <p>14 Q. Are you telling us that the quality supervision plan</p> <p>15 that we have been looking at over the past few weeks is</p> <p>16 the quality supervision plan prepared by Intrafor?</p> <p>17 A. It was initially prepared by Intrafor. We would have</p> <p>18 had a part in it, as well as MTR.</p> <p>19 Q. Yesterday, you were taken to the quality supervision</p> <p>20 plan. Do you recall that part of the exchange?</p> <p>21 A. I recall discussing it. Which particular part are you</p> <p>22 referring to?</p> <p>23 Q. Take it from me that that quality supervision plan has</p> <p>24 Leighton's logo printed on the quality supervision plan,</p> <p>25 and from my recollection we can't see any indication</p>	<p>1 least Leighton has endorsed the content of this quality</p> <p>2 supervision plan?</p> <p>3 A. Well, we did propose it to MTR, yes. This letter you</p> <p>4 have taken us to is an MTR letter. But we would have</p> <p>5 initially prepared this with Intrafor, BOSA and</p> <p>6 ourselves, with MTR's input, and it's gone to MTR;</p> <p>7 they've forwarded it to BD.</p> <p>8 COMMISSIONER HANSFORD: Sorry, can I just interject here --</p> <p>9 MR CHOW: Sure.</p> <p>10 COMMISSIONER HANSFORD: -- and ask Mr Brewster -- on this</p> <p>11 cover, it says "Type II -- Seisplisce standard ductility</p> <p>12 coupler".</p> <p>13 A. Yes.</p> <p>14 COMMISSIONER HANSFORD: You answered to my question</p> <p>15 yesterday about when ductility couplers were required</p> <p>16 was that they were required in places other than the</p> <p>17 construction joints.</p> <p>18 A. Yes.</p> <p>19 COMMISSIONER HANSFORD: I think we then went on a little bit</p> <p>20 further and explored that what you were talking about</p> <p>21 there was the diaphragm walls and the connections that</p> <p>22 came out of the diaphragm walls.</p> <p>23 A. Yes.</p> <p>24 COMMISSIONER HANSFORD: So this type II standard ductility</p> <p>25 coupler specification relates to the diaphragm walls?</p>
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<p>1 that it was prepared by Intrafor.</p> <p>2 A. I'd have to look at it, but it's fairly obvious it was</p> <p>3 in part prepared by Intrafor because of the appendices</p> <p>4 that clearly relate to Intrafor's action in respect of</p> <p>5 BOSA's involvement.</p> <p>6 Q. Am I right that at the very least, given the fact that</p> <p>7 the quality supervision plan bears Leighton's logo --</p> <p>8 MR WILKEN: Sir, can he be taken to the document? I think</p> <p>9 this is getting to a memory test again.</p> <p>10 MR CHOW: That's what I plan to do. Thank you for reminding</p> <p>11 me, Mr Wilken.</p> <p>12 Can I trouble you to go to bundle H9, page 4263,</p> <p>13 please. That is the covering letter, and the first page</p> <p>14 of the quality supervision plan can be found at</p> <p>15 page 4265.</p> <p>16 Can you confirm that -- well, first of all, the logo</p> <p>17 appearing on the top left-hand corner is Leighton's</p> <p>18 logo; can you confirm that?</p> <p>19 A. It certainly looks like it, yes.</p> <p>20 CHAIRMAN: "RC" means ...?</p> <p>21 MR CHOW: "RC" means registered contractor.</p> <p>22 CHAIRMAN: Thank you.</p> <p>23 MR CHOW: So this document, given the fact that it bears</p> <p>24 Leighton's logo on almost every page of the quality</p> <p>25 supervision plan, am I right to say that at the very</p>	<p>1 A. As to those couplers, yes.</p> <p>2 COMMISSIONER HANSFORD: Thank you.</p> <p>3 MR CHOW: Can I just follow up on Prof Hansford's question.</p> <p>4 So the couplers which require ductile behaviour,</p> <p>5 basically are those couplers at the interface between</p> <p>6 the slab and the diaphragm wall; is that correct?</p> <p>7 A. That's my understanding, yes.</p> <p>8 Q. Thank you. Now, you, being the authorised signatory of</p> <p>9 Leighton and in charge of -- to a certain extent,</p> <p>10 concerned with the project contract 1112 -- at the time</p> <p>11 of the execution of the work, have you ever looked at</p> <p>12 the details of the quality supervision plan?</p> <p>13 A. As I said yesterday, I can't recall seeing it.</p> <p>14 Recently, I've been across it a lot.</p> <p>15 Q. I recall that part of the evidence is you didn't even</p> <p>16 know couplers were used in the project?</p> <p>17 A. I don't recall saying that.</p> <p>18 CHAIRMAN: Sorry, I don't recall that.</p> <p>19 COMMISSIONER HANSFORD: In fact it was the contrary.</p> <p>20 Mr Brewster told us that they are regularly used in</p> <p>21 projects and indeed in this contract.</p> <p>22 MR CHEUK: Sorry, Commissioner and Chairman, I do have such</p> <p>23 recollection. When I first asked him, "Were you aware</p> <p>24 couplers were used in this project?", he said he didn't</p> <p>25 recall.</p>

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<p>1 CHAIRMAN: I see. We are talking about a question that went 2 to a specific fact, "Do you recall this?" Later, he 3 spoke about the fact that couplers were not exceptional 4 items in any form of contract. 5 MR CHEUK: Yes. 6 MR CHOW: For the purposes of the record, I have actually 7 looked at the transcript this morning, and that part of 8 the evidence can be found at page 99, line 12 to 9 page 101. I don't propose to go to the detail of the 10 transcript, so if I may then continue. 11 Now, on the basis of your evidence yesterday, that 12 at the time of the construction of the slab, you didn't 13 know the use of couplers in this project, and you have 14 no recollection of having read the quality supervision 15 plan -- is that your evidence? 16 A. Yes. I don't recall reading it at the time, that's what 17 I said. 18 Q. So, at that point, a logical deduction would be you were 19 not aware of the specific requirements in relation to 20 the inspection of the installation of the couplers work 21 set out in the quality supervision plan. Can you 22 confirm that? 23 A. That would be correct, on the basis that I don't recall 24 seeing it. 25 Q. You were also not aware of the requirement of having to</p>	<p>1 equivalent to a grade T3 TCP to be in charge of the 2 supervision work; is that correct? 3 A. As I said yesterday -- firstly, I go back to the fact 4 that I have AS reps who I rely on to deal with these 5 matters that arise on the contracts. If I wasn't sent 6 it -- I don't recall being sent those documents, then 7 it's up to them to deal with it. If there was 8 a problem, they would let me know. 9 Q. So your answer to my question is "yes"; is that right? 10 A. Sorry, you'll have to ask that question again. 11 Q. Leighton at the time has not appointed a specific 12 quality control supervisor to take care of the full-time 13 and continuous supervision of the splice assembly work? 14 A. Well, if you're asking me, I didn't. Whether the AS 15 reps did was something you'd have to ask them. But, as 16 I also said yesterday, I wouldn't expect necessarily 17 those field people, the site engineers, to actually be 18 aware of the QSP, if we were working with our own 19 quality management plan, and that plan, as I said 20 yesterday, also provides facilities for checking 21 reinforcement through RISC forms and also the pre-pour 22 check. 23 Q. Can I ask you to look at a letter from Leighton to the 24 Buildings Department dated 9 October 2018, this year, at 25 bundle H20, page 39722, please.</p>
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<p>1 appoint a specific person called a quality control 2 supervisor, or in some documents said quality control 3 coordinator, responsible for the inspection of the 4 splice assembly work on a full-time and continuous 5 basis? You were not aware of that requirement too; is 6 that right? 7 A. If I didn't see the document, I wouldn't be aware of it, 8 correct. 9 Q. Right. Now, we have heard evidence from various 10 Leighton staff from the site supervision team and site 11 engineering team, including Mr Gabriel So, Khyle 12 Rodgers, Chan Chi Ip -- three of them were from 13 Leighton's site supervision team -- and we also heard 14 evidence from Andy Ip, Edward Mok and Man Sze Ho. 15 Save Mr Edward Mok, who has heard about the QSP but 16 he confirmed that he never read it at the time, none of 17 them said they were aware of the specific requirement 18 set out in the quality supervision plan regarding 19 full-time and continuous supervision for the 20 installation of the couplers work. So that's the 21 evidence that we have received so far. 22 Now, you yourself, as the head of the structure, 23 also have no knowledge of that specific requirement. So 24 am I right to say that, at that time, you had not 25 appointed a specific person with the qualification</p>	<p>1 This is a letter in which Leighton responds to some 2 queries from the Buildings Department. 3 Let's go to page 2 of the letter, the following 4 page. Under "Item (c)", subparagraph 2, Leighton said: 5 "The quality control coordinators for the mechanical 6 coupler works related to the HUH diaphragm wall and EWL 7 platform slab were: 8 (a) Tang Kwok Wah [and then a number of persons from 9 Intrafor]; and 10 (b) LCAL engineering and supervision staff 11 responsible for the platform slab reinforcement works." 12 Then you said: 13 "The CVs for those personnel are included in 14 appendix C." 15 Can we move down a bit in the letter? This is 16 a letter issued by you in response to specific queries 17 raised by the Buildings Department. In the paragraph 18 that I have just taken you to, it is quite clear that 19 the message that you tried to give -- 20 CHAIRMAN: Can we just go up so we can see that paragraph 21 again. 22 MR CHOW: Yes. The message that you tried to give to the 23 Buildings Department is that a quality control 24 coordinator for the mechanical couplers work had been 25 appointed by Leighton, and he was responsible for the</p>

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1 required supervision work on site at the time of the 2 execution of the slab. Is that your intention at the 3 time? 4 A. Sorry, but the letter doesn't say "appointed". It just 5 says they were. The first one relates to Intrafor so 6 that's to do with Intrafor and their AS. The second 7 part of -- 8 Q. How about paragraph 2(b)? 9 A. The second part, part (b), we are saying, as I said 10 earlier, that the requirement was met through compliance 11 with the quality management plan and the RISC forms and 12 the pre-pour checks by the responsible staff. 13 Q. Mr Brewster, just now you agreed with me that at 14 least -- 15 CHAIRMAN: Sorry, I do apologise, I've cut you off. 16 I appreciate entirely what you're saying, Mr Brewster, 17 and this is just a query, but in theory, would you 18 accept that while Leightons, with international 19 experience and very great experience of large and 20 high-quality engineering projects, would obviously have 21 and place trust in its own quality control plans and 22 systems; in theory at least, in respect of each large 23 contract that may take place, there may be a requirement 24 to build specialist plans, either that add to your 25 standard quality control plans or are integrated into	1 they're added in. It becomes a project management plan. 2 CHAIRMAN: All right. You see, because it strikes me that 3 perhaps contractually what may be said is, in drawing up 4 the relevant contracts, that the QSP will be Leighton's 5 standard terms and conditions in this regard, and 6 procedures. That would be the quickest way of dealing 7 with it, as opposed to appearing to come up with 8 a collateral plan which in fact isn't a collateral plan 9 because it merely indicates that Leightons are just 10 going to use their own standing procedures? 11 That's a little complicated or on my part not the 12 best way expressed, but do you see what I mean? 13 A. I think I do, but there's one thing we try to avoid 14 on site is confusion. We don't want a multitude of 15 different plans covering particular things. So our 16 quality management plan is all-embracing, and people are 17 used to following it, and it's very similar to the MTR's 18 plan and we dovetail with them. 19 CHAIRMAN: Yes. 20 COMMISSIONER HANSFORD: If I can follow on -- so when you 21 get a new contract or a tender for a contract, is one of 22 the things you do to check whether your quality 23 management plan includes all the requirements, quality 24 requirements, of the contract? 25 A. Yes. We've got an overall company project management		
1 them in some way, in theory? 2 A. In theory, if that situation arises, yes, it will be 3 dealt with by a particular insert into the quality 4 management plan for the project. 5 CHAIRMAN: Yes. 6 A. In this case, that suggest couplers are not 7 an extraordinary item and they are dealt with through 8 our pre-pour concrete checks, that there's a specific 9 item; it gets particular attention. 10 CHAIRMAN: All right. So in respect of couplers, you are 11 saying effectively that anything that the QSP to which 12 you have been referred, anything that was concerned 13 there with couplers would have been already part and 14 parcel of your standard quality control mechanisms and 15 procedures? 16 A. Yes, that's what I'm saying. 17 CHAIRMAN: And would that have extended to everything? 18 A. Everything? Sorry, sir? 19 CHAIRMAN: To all aspects of the contract? 20 A. The quality management -- 21 CHAIRMAN: That's a difficult question and I appreciate 22 that. 23 A. Well, generically, the quality management plan covers 24 the whole project, and if there are particular 25 requirements of the contract that are not in there,	1 plan which has various plans within it, quality 2 management environment, all those are covered. But, 3 yes, there is a project-specific management plan that's 4 prepared, and then there's the subsets of all the other 5 plans, like planning, interface with sub-contractors; 6 all of those things form part of the project management 7 plan that's specifically written around the generic 8 document. 9 COMMISSIONER HANSFORD: Yes, because as the Chairman was 10 asking you just now, it's quite conceivable that 11 specific requirements for a specific project may go 12 beyond the generics of your quality management plan, and 13 you've said in such an instance you would amend or put 14 inserts, but you want to keep it relatively clear. 15 A. You'd add to the standard quality management plan and 16 make that the quality management plan for the project. 17 COMMISSIONER HANSFORD: Right. And was that done here? 18 A. I can't recall. I wasn't involved in it. 19 COMMISSIONER HANSFORD: Thank you. 20 CHAIRMAN: Who would have been responsible for that? 21 A. Those plans are usually prepared fairly early in the 22 project. The quality management side of things are 23 prepared by the quality management team. 24 COMMISSIONER HANSFORD: So maybe that's a question for the 25 quality management team.		

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<p>1 A. Maybe it is, in the same way that the safety plan's 2 prepared by safety management. 3 CHAIRMAN: All right. I would, for myself, and I think all 4 of us would endorse this, that obviously your suggestion 5 or your statement that you want to keep plans as simple 6 and straightforward as possible is obviously important. 7 Nobody wants to work on a major project like this with 8 confusing, overlapping plans. We accept that. And 9 perhaps what we are looking to here is how do you, then, 10 if there are specifics that are required under the 11 contract -- how do you ensure that those are not simply 12 gobbledegook layered on top of existing coherent plans? 13 In other words, that you are able to integrate the two 14 in a clean, simple, straightforward manner, where levels 15 of responsibility are articulated in a clean, simple 16 way, and everybody knows what their duties are. I think 17 that's what we're looking to? 18 A. That summarises it fairly well, yes. That's what we try 19 to do. So you'd look at the standard, or the generic 20 plan, and see whether it was appropriate for the 21 project. As I say, in this case, couplers are fairly 22 standard. There's a requirement to check them on that 23 pre-pour checklist. So they're already covered, in the 24 same way that other things are covered. 25 CHAIRMAN: All right. I appreciate that, and because we're</p>	<p>1 would have to amend it to a project-specific plan. 2 CHAIRMAN: Fine. So from your perspective, then, it's 3 a reasonably simple matter. There were contractual 4 requirements, you looked at them insofar as it was your 5 responsibility and/or you assume, quite correctly, with 6 the chain of command, that people underneath you looked 7 at them, and they were satisfied that whatever the 8 contractual requirements were of this specific contract, 9 they were already met within your standard terms and 10 procedures of quality control? 11 A. That would be my understanding, yes. 12 COMMISSIONER HANSFORD: Just before we leave this page, 13 because I've not personally seen this document before -- 14 after item 2, you then go on to say, "The CVs for those 15 personnel are included in appendix C." Are they just 16 the Intrafor CVs or are they also the LCAL engineering 17 and supervision staff CVs that are included? 18 MR WILKEN: Sir, the page is 39998. That should be 19 appendix C. 20 COMMISSIONER HANSFORD: And that gives me the answer? 21 MR WILKEN: Start scrolling, and you will see who they are. 22 COMMISSIONER HANSFORD: And they do include LCAL? 23 MR WILKEN: The LCAL people, yes. 24 MR CHOW: And also the CV of Edward Mok -- you recall that 25 Edward Mok is really the main person doing the</p>
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<p>1 looking at couplers -- and I don't wish to keep you, but 2 perhaps I could deal with it this way. You are a moving 3 company. You're moving my furniture into my apartment. 4 I have a number of paintings. I want specific 5 requirements in respect of my paintings. I want them 6 bound about with a particular type of material, I want 7 the corners to be protected, I want you to have 8 a particular officer, of particular experience, to move 9 them. 10 You have your own built-in systems for moving 11 paintings, you've been doing it for years, and you think 12 to yourself, "I don't need to look at all of this." But 13 if you are being paid and if the terms of the contract 14 are that you will do those specific things, then even 15 though you have well-trying, well-practised and entirely 16 credible procedures of your own, would you agree that 17 your requirement now is to take the extra step or two to 18 meet the eccentricities of myself, who wants specific 19 measures in respect of my paintings? I think that puts 20 it as clean as I can. 21 A. I answer that by saying yes, you may well be right, but 22 in the first place I would check the generic plan to see 23 whether it had enough facility in it to deal with the 24 particular requirements that you may set. So I think 25 that step's got to come first, and if it didn't then you</p>	<p>1 inspection of the coupling work -- his CV can be found 2 at pages 40033 and 40034, just for the purposes of the 3 record. 4 COMMISSIONER HANSFORD: Okay. Thank you. 5 MR CHOW: Mr Chairman, before I move on to the next topic, 6 just for the purpose of record -- just now, we had 7 a brief discussion as to whether it was part of 8 Mr Brewster's evidence yesterday whether he was aware of 9 the use of the couplers. I have cited a particular part 10 of the transcript. 11 My team members have helpfully located another part 12 of the transcript. I will just put it on the record. 13 It's page 94, lines 18 to 25. 14 CHAIRMAN: Thank you. 15 MR CHOW: Mr Brewster, I would like to move on to another 16 area. You recall that just now we have looked at the 17 various duties and responsibilities imposed upon you at 18 the time; right? 19 A. Yes. 20 Q. One of those duties concerned devising checklists for 21 specific tasks for your TCPs. Do you recall that? 22 A. I do. 23 Q. Right. Then can I ask you to go to a relevant part of 24 the Code of Practice. Bundle H8, page 2685, please, 25 paragraphs 5.1 and 5.2. 5.1 provides:</p>

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<p>1 "The AP, RSE, RGE and AS [meaning authorised 2 signatory] shall devise checklists for their TCPs by 3 making reference to the typical items listed in 4 tables 5.1 to 5.4 of this Code and to include any other 5 particular items considered appropriate and necessary 6 for their projects and surrounding conditions. 7 5.2. The TCPs shall carry out their duties as per 8 the checklists devised by their own heads of stream and 9 all the checklists and inspection records shall be kept 10 on site for the inspection of the Building Authority." 11 You see that? 12 A. I see that, yes. 13 Q. Let's go to look at relevant part of the table, 14 table 5.4 at page 2689. This is the table which sets 15 out the standard items that have to be checked or 16 included in the checklist. Starting from C1, C2, C3 -- 17 do you see that, the various items? 18 A. I see the typical items. They don't necessarily have to 19 be included. 20 Q. Very well. Let's go to the end of this table, at 21 page 2691. You see at the very bottom of the table, 22 there's an item called "Cn"; do you see that? 23 A. I see that. 24 Q. That item would include -- what it says here is: 25 "Any other items considered essential by the</p>	<p>1 Q. It doesn't matter. Don't worry. 2 The relevant part that contains the specific 3 requirement of the Building Authority can be found at 4 page 3928. This is subparagraphs (c) and (d), please. 5 Subparagraph (c) provides: 6 "The registered general building contractor ... 7 should assign a quality control coordinator to provide 8 full-time on-site supervision of the works and devise 9 inspection checklists. The minimum qualifications and 10 experience of the quality control coordinator is to be 11 the same as the grade T3 technically competent person, 12 as stipulated in the Code of Practice for Site 13 Supervision 2009." 14 So this is one of the specific requirements by the 15 Building Authority. 16 Subparagraph (d): 17 "The names and qualifications of the supervisory 18 personnel representing the competent person and the 19 RGBC/RSC respectively should be recorded in 20 an inspection logbook. The date, time, items inspected 21 and inspection results should be clearly recorded in the 22 logbook. The logbook should be kept at the site office 23 and, when required, produced to the Building Authority 24 for inspection." 25 Then if you can go to paragraph 3 at page 3930.</p>
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<p>1 registered contractor for the project, including those 2 for quality supervision and other conditions imposed by 3 the Building Authority at approval and/or consent 4 stage." 5 Do you see that? 6 A. I see that. 7 Q. Now, yesterday Mr Cheuk, counsel for the Commission, has 8 taken you to various acceptance letters. Do you recall 9 that? 10 A. Yes. 11 Q. In those acceptance letters, the relevant parts are 12 almost of identical terms regarding the full-time and 13 continuous supervision of the coupling installation 14 work; do you recall that? Or do you want me to take you 15 to one of those conditions? 16 A. Sorry, what was the question again? 17 Q. Let's go to the acceptance letter then. Bundle H9, 18 page 3908. 19 This is the acceptance letter in relation to -- 20 first of all, dated 25 February 2013, for I think 21 a particular part of the EWL slab, between gridline 22 22 to 49. From my understanding, 22 to 49 would be area C. 23 Can you confirm that? 24 A. I can't remember which grids are which, but I'll take 25 your word for it.</p>	<p>1 Paragraph 3 sets out the specific requirements in 2 relation to the inspection work: 3 "A quality supervision plan of the competent person 4 and the RGBC ..." 5 Which is Leighton in that case; can you confirm 6 that? 7 A. That's what it says, yes. 8 Q. "... is required to be submitted to this department 9 prior to the commencement of the mechanical coupler 10 works. The quality supervision plan should include the 11 following details: 12 (a) Assignments of quality control supervisor of the 13 competent person and quality control coordinator of the 14 RGBC ... to supervise the manufacturing process of the 15 connecting ends of the steel reinforcing bars, and the 16 installation of steel reinforcing bars to the couplers. 17 (b) Frequency of quality supervision, which should 18 be at least 20 per cent of the splicing assemblies by 19 the quality control supervisor of the competent 20 person ..." 21 And the competent person is MTR. 22 "... and full-time continuous supervision by the 23 quality control coordinator of the RGBC ... of the 24 mechanical couplers works. 25 (c) For couplers to be used at the top of the</p>

Page 25	1 pile cap and transfer plate, the frequency of quality 2 supervision should be at least 50 per cent of the 3 splicing assemblies by the quality control supervisor of 4 the competent person and full-time continuous 5 supervision by the quality control coordinator of the 6 RGBC ..." 7 So these are the specific requirements set out in 8 the acceptance letter. 9 Then, according to the requirements set out in 10 table 5.4 of the Code of Practice, you, as authorised 11 signatory of the project at the time, should have 12 devised an appropriate checklist, so as to take care and 13 to perform the requirements as set out by the BD, and 14 you have not done that; can you confirm that? 15 A. We certainly didn't set out checklists in that form, but 16 we rely on the fact that we've carried out the work in 17 accordance with the requirements, and that they are 18 satisfied by the RISC forms and the pre-pour concrete 19 checks. 20 Q. Right. We are going to go to the forms later on, but 21 before that, can I just ask a few more questions, on 22 another duty imposed on you, and that is the duty to 23 supervise your TCP. Do you recall that is one of the 24 duties for AS? 25 A. One of them, yes.	Page 27	1 imposed upon you, regarding supervision of your TCP. 2 You accept that, as an AS, one of the duties is to 3 give proper supervision of your TCPs to ensure that they 4 carry out the required supervision and inspection as per 5 the site safety plan and the quality supervision plan; 6 right? 7 A. Yes, but I rely on my AS representatives to carry out 8 that function. 9 Q. Right. 10 A. There are many plans and there are several AS reps and 11 it is an extremely big site. 12 CHAIRMAN: I'm sorry, I'm interrupting again. I do 13 apologise. 14 MR CHOW: Not at all. 15 CHAIRMAN: It helps me. 16 If we go to 3(b) on the screen: 17 "Frequency of quality supervision, which should be 18 at least 20 per cent of the splicing assemblies by the 19 quality control supervisor ..." 20 Now, as I read that, that says that 20 per cent of 21 the splicing assemblies should be supervised or -- 22 should be supervised as to the quality of the assembly. 23 A. By the competent person, which is MTR, sir. 24 CHAIRMAN: So, in other words, that MTR should have somebody 25 there watching at least 20 per cent of the splicing
Page 26	1 Q. So, at the time, you were required -- 2 CHAIRMAN: Sorry, just so that I understand -- I'm just 3 reading the transcript, Mr Brewster -- so what you are 4 saying is, you may not have had checklists in the form 5 set out there, but, as you have said before and as 6 an extension to what you have said before, you had the 7 RISC forms and you had your pre-concrete checks, and 8 they encompassed -- 9 A. Those requirements, yes. 10 CHAIRMAN: -- those requirements? 11 A. Yes, sir. 12 CHAIRMAN: So, again, it's a case that you were able to look 13 at the requirements, look at your own procedures, and 14 say, "Those encompass the requirements anyway, so we 15 just proceed with our own procedures which are known to 16 our workers"? 17 A. Correct, sir. 18 CHAIRMAN: And when I say "workers" I mean both professional 19 and otherwise. 20 A. It's a similar system to MTR's as well. That's the way 21 we operate together. 22 CHAIRMAN: Okay. 23 MR CHOW: Thank you, Chairman. I will revisit this later on 24 in my cross-examination. 25 Meanwhile, can I just move on to other duties	Page 28	1 assemblies taking place? 2 A. That's the requirement, sir, yes. 3 CHAIRMAN: And that would mean that the splicing assemblies, 4 as I spoke to you the other day and asked you 5 specifically about that -- 6 A. Yes. 7 CHAIRMAN: -- means screwing the -- 8 A. In the -- 9 CHAIRMAN: -- reinforced steel bars into the couplers and 10 making sure they are firm and fit and everything works? 11 A. Yes. 12 CHAIRMAN: So there should be somebody watching at least 13 20 per cent of those operations taking place? 14 A. That's the competent person's role, MTR, yes. 15 CHAIRMAN: As opposed to a general overview, that's 16 a specific requirement? 17 A. Yes. 18 CHAIRMAN: Okay. And in addition to that specific 19 requirement, then in respect of the actual putting in of 20 the reinforced bars into couplers to be used at the top 21 of the pile cap, that should increase to 50 per cent? 22 A. Yes, that's what they mean. 23 CHAIRMAN: Okay. "Top of the pile cap" means? 24 A. That description is a little bit vague, sir. I'm still 25 a bit perplexed as to exactly where it is. There are

Page 29	1 parts of the slabs that could be called transfer plate 2 because they support some columns. I didn't concern 3 myself too much with this because essentially it's 4 an additional requirement for the CP. As far as we are 5 concerned, it's still got the same requirement as in 6 (b), so I didn't have to distinguish and understand it. 7 CHAIRMAN: Right. We may well be getting evidence from 8 other people, but I don't recall anybody saying at the 9 moment -- and I'm open to correction, always, on these 10 matters, and no doubt will be -- I just don't recall 11 anybody from Leightons saying, "I knew I had a duty to 12 actually watch 20 per cent of the assemblies taking 13 place, and I therefore ensured" -- 14 A. Not us, sir, MTR. 15 CHAIRMAN: I'm sorry, MTR. Okay, that's why I haven't heard 16 that yet. So there's the MTR people. And your people 17 would have had more of a continuous supervision duty? 18 A. Correct. 19 CHAIRMAN: Okay. So MTR had to have somebody there to watch 20 20 per cent or 50 per cent; okay? And you had a duty of 21 full-time continuous supervision? 22 A. Yes. 23 CHAIRMAN: Then the question is what does "full-time 24 continuous supervision" mean: does it mean something in 25 addition to -- well, obviously it's in addition to what	Page 31	1 other walks to attend with staff. So all that is in the 2 context of -- they're there full-time, but they're not 3 standing there full-time. 4 CHAIRMAN: No. So would it be correct to say these words 5 haven't evolved into a specific term of art which means 6 everybody with a hard hat who's got an engineering 7 degree knows exactly what that means? That wouldn't be 8 the case? 9 A. No, sir. 10 CHAIRMAN: But equally, common sense dictates it doesn't 11 mean standing there all day long, watching each and 12 every coupler, but that's common sense -- 13 A. It's common sense. 14 CHAIRMAN: -- not necessarily adherence to the words, 15 because lawyers learn that contracts and common sense 16 aren't necessarily the same thing. 17 A. I don't know how to answer that one. 18 CHAIRMAN: Well, you may well find that there are questions 19 put later suggesting that you should have followed the 20 contract as opposed to common sense. Do you see what 21 I mean? 22 A. I take your point, sir, but I think our work and our 23 profession is a very practical profession. 24 CHAIRMAN: Good. 25 A. We don't take things to the nth degree.
Page 30	1 MTR were going to do -- is it more stringent or is it 2 just a general backup? 3 A. To me, it's more words. It's somewhat confusing, and 4 how do you read it with "continuous"? As I said, we 5 have the staff there to build the project, and they are 6 there continuously. They are on site full-time. But 7 they don't stand out there 100 per cent of the day. 8 CHAIRMAN: Yes. Sometimes, within a trade or an industry or 9 a profession, certain general terms which are otherwise 10 open to all sorts of debate take on a specific meaning, 11 a sort of term of art. I'm just wondering, within your 12 profession, whether "full-time continuous supervision" 13 has taken on a specific meaning that anybody who's been 14 in your job for more than six weeks and is wearing 15 a hard hat down there and has got an engineering degree 16 will say, "Of course I know what that means, it means 17 a specific thing." Would that be the case or is it, 18 again, something which in terms of this contract is 19 a bit vague and open to debate? 20 A. I don't think it's specific, because it can't have the 21 meaning that, as we said yesterday, it means someone's 22 got to stand there all day. It just doesn't work like 23 that. People have obligations to complete paperwork, 24 the very things we're talking about. There are pre-work 25 starts, there are other meetings to attend, there are	Page 32	1 COMMISSIONER HANSFORD: Could I just interject here, 2 Mr Brewster, because I also come from the same 3 profession as you, and I share your approach of it being 4 very practical, but when a specification is unclear or 5 ambiguous in any way, is there a process that you as 6 Leighton would go through with your employer, MTR, to 7 seek clarification about what's really meant by 8 a particular unclear statement? 9 A. Anything that's unclear at any time, it's usually dealt 10 with through the process of raising requests for 11 information, RFIs, or writing letters, of course. 12 COMMISSIONER HANSFORD: So, in the case of a requirement 13 for -- 14 A. I'm not aware of anything being written. 15 COMMISSIONER HANSFORD: -- full-time and continuous, do you 16 know if any clarification was sought? 17 A. Not that I'm aware of, no. 18 COMMISSIONER HANSFORD: Thank you. 19 A. I can only surmise that a common-sense, practical 20 approach was taken on that. 21 COMMISSIONER HANSFORD: And do you think taken by, if I can 22 call them, both sides? 23 A. I would say so. We are working hand in hand with MTR. 24 The job doesn't get built without them. 25 COMMISSIONER HANSFORD: So your view is there was a clear

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<p>1 understanding of what was meant by both parties to the 2 contract? 3 A. I don't know that specifically. I'm surmising that's 4 the case. But yes. 5 COMMISSIONER HANSFORD: Thank you. 6 MR CHOW: If I move on to the next subject -- can I just 7 follow up on the discussion earlier. When you said 8 about staff being full-time on site would be able to 9 satisfy the requirement of full-time and continuous 10 supervision, am I right to say that, as a matter of 11 common practice in Hong Kong, site supervision staff are 12 inevitably employed full-time on site? We seldom have 13 part-time staff being employed to do the site 14 supervision. Am I right to say that? 15 A. Most of the contracts we do are large-scale contracts 16 and their staff are full-time. 17 Q. Right. 18 A. We don't generally have part-time staff, unless it's 19 something out of the usual. 20 Q. So do you agree that if that is what these requirements 21 intended, it would be wholly unnecessary to put this as 22 a specific requirement because as a matter of common 23 practice most of the site supervision staff would be 24 employed full-time on site? Do you agree with me? 25 A. I didn't write it so I can't comment on that. I don't</p>	<p>1 they were not aware of the specific requirement either. 2 So my question is, being an authorised signatory, have 3 you -- although you yourself were not aware of the 4 details of the QSP, have you taken any steps to ensure 5 that your TCPs were aware or ought to be -- were aware 6 of the specific requirement, whatever it may be, set out 7 in the quality supervision plan? 8 A. Like I said, I rely on the assistance of the site staff 9 in general, and particularly the AS reps, to cover all 10 those requirements when they're developing the SSPs. 11 CHAIRMAN: Sorry, again -- I think I'm getting there now -- 12 please forgive my tardiness -- but would it be correct 13 to say then your understanding was that the MTR 14 contractually had a specific obligation to watch 15 20 per cent of the assemblies and/or 50 per cent; right? 16 So they had an obligation, they know that the assemblies 17 are taking place, they've got to go down there, and 18 they've got to be able to show later, with a record, 19 that they've watched 20 per cent of these assemblies go 20 in or 50 per cent? 21 A. It's quality supervision. 22 CHAIRMAN: Of the assemblies taking place? 23 A. Of the assemblies, yes. 24 CHAIRMAN: Because assembly is an act taking place within 25 a specific time period.</p>
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<p>1 know what's in the writer's mind but I know what's in 2 mine. 3 Q. In paragraph 3(b), when it specifically referred to 4 "Frequency of quality supervision", and then mentioned 5 "full-time continuous supervision", do you agree with me 6 that that would mean something other than the staff 7 having to be employed full-time on site? It must mean 8 something different, do you agree? 9 A. I can't see there's anything different about it. Staff 10 are there full-time; they are continuously on site. 11 Q. If I may then move on to another area. 12 A. Sorry? 13 Q. You recall that one of your duties relates to 14 supervision of your TCP. Do you recall that? 15 A. Yes. You asked me a few minutes ago, yes, and I said 16 I do that through the AS reps. 17 Q. Now, earlier you told us that at the time you were not 18 aware of the specific requirement -- I don't want to 19 repeat all the details, but I refer to specific 20 requirement, it would be in relation to full-time and 21 continuous supervision of the coupling works. 22 A. Okay. 23 Q. You told us that at the time you were not aware of the 24 specific requirement. The members of the site 25 supervision team and site engineering team told us that</p>	<p>1 A. Yes. 2 CHAIRMAN: So they've got to watch 20 per cent of those 3 taking place? 4 A. That's what that says. Again, RISC forms, pre-pour 5 checks -- 6 CHAIRMAN: I'm talking about the MTR doing that. 7 A. They're signed by the MTR as well. 8 CHAIRMAN: Yes. And your people have an obligation to 9 conduct full-time continuous supervision. 10 A. Yes. 11 CHAIRMAN: I suppose where I have a problem is this. We've 12 agreed that it's not a term of art which everybody in 13 the industry, the minute they put on a hard hat, knows. 14 You've agreed that it's in fact a little ambiguous. So 15 what did it in fact mean for you in this contract so 16 that it met the terms of your obligations? That's where 17 I've got a bit of a difficulty. 18 A. Well, again, we rely on the fact that we have covered 19 that in our quality management plan, by following MTR's 20 RISC form and our pre-pour checks. And the rebar 21 checking that we've heard from other people was done 22 rigorously. 23 CHAIRMAN: Okay. 24 A. We've heard from witnesses about walking up and down, 25 et cetera, et cetera. Continuously supervised.</p>

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<p>1 CHAIRMAN: All right. 2 Good. Thank you very much. 3 MR CHOW: Mr Brewster, just now you mentioned that you 4 relied on your representatives; do you recall that? 5 A. Yes. 6 Q. Am I right that your representatives would report to you 7 at the time; is that right? 8 A. When you say "report", what do you mean? I mean, 9 I relied on them to -- 10 Q. In relation to the work that they performed regarding 11 compliance of the quality supervision plan or site 12 supervision plan. 13 A. They didn't report to me about those sort of matters. 14 If there was an issue that required my attention, we 15 would talk about it. There were several 16 representatives. They were managing that process, and 17 I'm comfortable with that. 18 Q. Let's put it this way. We know from evidence of the 19 other Leightons witnesses that those who carry out 20 actual inspection and supervision on site were not aware 21 of the specific requirement. You yourself at the time 22 were also not aware of the specific requirement. 23 My question was whether you have taken any steps to 24 ensure that those actually carrying out the supervision 25 and inspection work were aware of the requirement, and</p>	<p>1 have qualified people conducting full-time continuous 2 supervision. 3 A. Yes. 4 CHAIRMAN: And that was done in terms of their standard 5 procedures, they had people who spent -- like Edward Mok 6 has said, he spent four hours a day on site watching, 7 and it was done by the various other hold point matters 8 such as seeking the pre-concrete pour inspection and the 9 RISC documents, et cetera, which confirmed that. 10 So it seems to me what he's saying is the specific 11 requirements -- because otherwise we are chasing our 12 tails around and around here -- the specific 13 requirements were in fact your standard requirements, 14 and as far as you were concerned your standard 15 requirements for inspection met the obligation for 16 full-time continuous inspection? 17 A. Yes, sir. 18 CHAIRMAN: That I think is it. 19 MR CHOW: Thank you, Mr Chairman. 20 Now, can I ask you to look at paragraph 5 of your 21 second witness statement, at page 26540, bundle C35. 22 There you said: 23 "In paragraphs 6 and 7 of Mr Ho's second 24 statement" -- Mr Ho is the witness of the Buildings 25 Department -- "he refers to the QSP and sets out the</p>
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<p>1 then your answer was you relied on your representatives 2 on site. So that is your evidence; is that right? 3 A. Correct. They had to do that. They are the ones that 4 are more conversant with the contract, the contract 5 requirements. They're doing the liaison with MTR. 6 They're in a better place than me to judge those things. 7 If they've got a problem, they'll let me know. 8 Q. Sure. Then have you ever checked with your 9 representative whether he has taken any steps to ensure 10 that the people working on site know exactly what they 11 need to do? Have you ever checked, or did you not care 12 at all? 13 A. As I said, I relied on them to do it. If they had 14 a problem, they'd let me know. They're in that 15 situation, they're out on site, they're fully aware of 16 all the requirements; they're dealing with it. 17 Q. So your answer is you have not checked with your 18 representatives; right? Is that your answer? 19 A. I haven't specifically -- 20 CHAIRMAN: I don't think it's his answer. My understanding 21 is -- and correct me if I am wrong -- that what 22 Mr Brewster is saying is that leaving aside the specific 23 requirement placed on MTR to do a 20 per cent or 24 a 50 per cent specific inspection of the coupling taking 25 place, there was a requirement placed on Leighton to</p>	<p>1 requirement of the 'MTRC TCP T3 independent checklist 2 for on-site assembly'" -- 3 A. Can you move the screen down a little bit? I'm looking 4 at the wrong paragraph. 5 Q. This is the right paragraph, paragraph 5. 6 A. It is now, yes. 7 Q. You've got that? 8 A. It's okay. It was on the wrong screen. 9 Q. Then he goes on to say: 10 "This checklist document references panel numbers, 11 the arrival date of threaded rebar (which is stated to 12 be 'Based on purchase order for each panel from 13 Intrafor') and includes a column titled 'Verticality 14 checking for coupled rebars (10 per cent per column)'. 15 This indicates that this checklist document was intended 16 to be used for couplers in the diaphragm walls. In 17 fact, all of the couplers used to connect rebar in the 18 slabs to those in diaphragm walls or at construction 19 joints in the slabs were horizontal. Thus, there was no 20 prescribed form of checklist for the couplers that were 21 used to connect the rebar installed in the slab. In 22 this context, Leighton used a different set of forms 23 (Leighton's pre-pour quality control checklist and MTR's 24 prescribed RISC forms) to record the inspections done on 25 rebar and couplers in the slabs. This is consistent</p>

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<p>1 with Leighton's obligations under the BD consultation 2 letters, which merely require that Leighton 'devise its 3 own checklists'."</p> <p>4 Now, we have heard what you said yesterday. Can 5 I ask you to go to the quality supervision plan at 6 bundle H9, starting at page 4263, please.</p> <p>7 Do you accept that the checklist attached as 8 appendix B and appendix C were meant to be sample 9 checklists only? Do you accept that, at pages 4277 and 10 4278?</p> <p>11 A. Sorry, where does it say "sample"?</p> <p>12 Q. Sorry?</p> <p>13 A. "Sample", what do you mean by "sample"?</p> <p>14 Q. They would attach to the quality supervision plan 15 a sample and Leighton has to devise an appropriate 16 checklist to suit the particular type of work being 17 carried out. That is what I meant. Do you agree with 18 that?</p> <p>19 A. I'm not too sure that they were intending to amend this. 20 It was the form that they were going to use.</p> <p>21 Q. Okay. Let's go back a little bit to appendix A, at 22 page 4271. This is appendix A. The heading is 23 "Technical background on installation of couplers to be 24 used in any location including barrettes and D-wall 25 panels."</p>	<p>1 1. The protective PVC caps can be removed only 2 after delivery and preparation for inspection ...</p> <p>3 2. After removal of the protective PVC caps, 4 couplers are checked for any damage ...</p> <p>5 3. Thread/couplers must be checked for any 6 existence of concrete gal, debris and foreign 7 material ...</p> <p>8 4. Once couplers are fully engaged and tightened. 9 Use a regular pipe wrench/chain wrench to tighten the 10 splice. In specific torque amount is required.</p> <p>11 5. The coupled rebar will be checked for the 12 verticality by spirit level.</p> <p>13 The above-mentioned inspection check would be 14 100 per cent carried out on site by quality control 15 supervisors ([of the] RC)]. Quality control supervisors 16 (MTRC) will carry out random sampling check by at least 17 50 per cent on the verticality."</p> <p>18 So what it says, if you look at this document in 19 context, appendix B and appendix C were meant to be 20 sample checklists which provide you with guidelines and 21 this shows you what sort of information you need to show 22 in your checklist to be devised by you to suit the 23 construction of the slab. Do you agree with me?</p> <p>24 A. Well, some of those items don't relate. In fact, 25 I don't think the sheets relate to us. As I said</p>
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<p>1 Do you see that?</p> <p>2 A. I can see that, yes.</p> <p>3 Q. Then if we go on, the following few pages provide 4 details regarding BOSA's preparation work. Then if we 5 go on, all the way to the section (v) at page 4276 -- 6 have you got that? So this section deals with the work 7 carried out on site, and it provides that:</p> <p>8 "All inspection record of control threading and 9 threading will be documented and signed by the inspector 10 of BOSA. The site [supervision] forms are to be 11 completed by quality control supervisors (RC) and 12 counterchecked by quality control supervisors (MTRC). 13 All inspection record should be maintained at site for 14 inspection by relevant parties. (Sample inspection 15 record sheet with example is attached for reference)."</p> <p>16 Then we have the two samples attached as appendix B 17 and appendix C. So do you agree that the checklists 18 attached as appendix B and C are meant to be sample 19 only?</p> <p>20 A. That's what the words say, yes.</p> <p>21 Q. Before we move on, perhaps as we are on this document, 22 at 4276, the same page where we find the section with 23 the (v), at the top of the page, it also provides that:</p> <p>24 "Quality control supervisor [of the contractor] will 25 fully supervise the installation on site as [follows]:</p>	<p>1 yesterday, we have to devise new sheets. I don't think 2 you can say they are a sample or an example if they 3 don't fit at all. We would use our own system because 4 that fits perfectly.</p> <p>5 Q. Mr Brewster, I'm afraid I have to suggest to you that 6 you knew perfectly well what was required of you in 7 terms of the format of the checklist for the coupling 8 works in the EWL slab. Do you agree with me?</p> <p>9 A. I knew perfectly well what, sorry?</p> <p>10 Q. The format required of you in relation to -- perhaps 11 I will start again.</p> <p>12 You knew perfectly well that the pre-pour quality 13 control checklist and the RISC forms that you now relied 14 on were not sufficient to satisfy the requirement of 15 contemporaneous record for the inspection of the 16 coupling work, as required under the quality supervision 17 plan.</p> <p>18 A. I'm not too sure what you mean by a contemporaneous 19 record. I mean, we've already discussed supervision, 20 and in terms of what we've done I'm satisfied that the 21 forms that we've used do satisfy the requirements.</p> <p>22 Q. All right. Now, can I ask you to look at -- go to 23 bundle G12, page 9883.</p> <p>24 CHAIRMAN: Sorry, I'm interrupting again. 25 You would agree that contemporaneous -- again, it's</p>

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<p>1 a term open to interpretation -- in your instance, 2 people would be looking, they would satisfy themselves, 3 and then they would fill out a form? 4 A. Fill out the RISC forms and the pre-pour checks, yes. 5 CHAIRMAN: That's right? 6 A. Yes. 7 CHAIRMAN: Those forms would be filled out not on site as 8 such but they would go back to the site office probably 9 and fill out those forms? 10 A. Yes. 11 CHAIRMAN: As opposed to, for example, if it was to be the 12 case, of having a tablet or something like that where 13 you could go along, check everything was okay and just 14 with a tap, using modern technology, get a confirmation 15 on site, instantly. So we're now juggling with 16 contemporaneous and instant. Do you see what I mean? 17 A. I'm sure we'll get there one day, sir, with tablets that 18 give us instant answers, but right at the moment we're 19 still dealing with paperwork. 20 CHAIRMAN: I wonder if in fact, and no doubt we'll find out 21 in due course if in fact there aren't very large 22 building projects around the world which are in fact 23 using instantaneous records. 24 A. We do use them for certain things but not in this 25 instance.</p>	<p>1 produce a series of these documents in June this year? 2 A. My understanding is we were asked to produce it. It's 3 a summary document, nothing more, nothing less, as 4 I said yesterday. 5 Q. Okay, so that is your answer. 6 A. Yes. 7 Q. Can I ask you to go to a document. It's a letter from 8 the Buildings Department to Leighton, dated 10 August 9 this year, at bundle H14, page 7810. 10 So this is a request from the Buildings Department 11 on 10 August 2018, addressed to you, in which Buildings 12 Department request for a number of documents and records 13 from Leighton. 14 The relevant part is items (b) and (c). The 15 Buildings Department asked for: 16 "All the checklists and inspection records" -- 17 MR WILKEN: Sir, I hesitate to interrupt but we did have 18 a debate yesterday about the scope of the terms of 19 reference. I'm not sure where this goes in terms of the 20 terms of reference, because this relates to an issue 21 which you touched on yesterday, sir, about debates 22 between the Buildings Department and my client as to 23 action that was taken before this Inquiry began in 24 September. 25 So if my learned friend is pursuing this line</p>
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<p>1 CHAIRMAN: So what you are saying then is this, you were 2 satisfied, met all the obligations? You had your system 3 of pre-concrete checks, you had your RISC forms. They 4 were contemporaneous in the sense that the qualified 5 people looked at it, satisfied themselves that what was 6 ready was properly constructed. They went back to the 7 site office and they filled out their forms, and that 8 met the obligations of being contemporaneous? 9 A. Yes, sir. 10 CHAIRMAN: If not instant? 11 A. Certainly not instantly, no. 12 CHAIRMAN: No. Good. Thank you very much, sir. 13 MR CHOW: Mr Brewster, now on the screen is a document 14 created by Leightons in June this year, and the title is 15 "As-built for on-site assembly of EWL slab", probably 16 "D-wall/slab couplers"; do you see that? 17 A. I see the document, yes. 18 Q. I now have to suggest to you that you knew well this is 19 the kind of document that Leighton should have used at 20 the time of the construction of the slab to record the 21 inspection carried out and the result of the inspection. 22 A. No, I don't agree. We are happy with the system we 23 followed. It meets the contract requirements and the 24 regulatory requirements. 25 Q. In that case, can you explain why Leighton bothered to</p>	<p>1 I would be grateful to know how this falls within the 2 terms of reference. 3 Thank you, sir. 4 MR CHOW: I believe that part of the terms of reference 5 relates to the project management carried out by 6 Leighton. We see that retrospective documents were 7 created. The purpose of these documents certainly would 8 be something that the Commission needs to consider, and 9 that would have an impact on the recommendation or the 10 criticism, if it deserves any criticism, in relation to 11 the project management work of Leighton, which may 12 result in the problems that we are dealing with today. 13 Now, my series of questions -- 14 CHAIRMAN: Sorry, I don't wish to interrupt, although 15 I am -- my apologies -- but it seems to me that what is 16 being said by Mr Brewster, and obviously the 17 ramifications will be considered in due course by myself 18 and my co-Commissioner, is that these particular 19 documents which are self-explanatory, we can look at 20 them, we can see what has been put in there by hand and 21 what has been put in by way of typing, et cetera -- 22 these documents were simply a summary requested by 23 government and put together therefore as a summary by 24 Leightons. 25 What that means, in fact, by way of ordinary</p>

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<p>1 deduction, is they didn't prepare such documents at the 2 time. The question then becomes: should they have 3 prepared such documents at the time? 4 Questioning Mr Brewster now as to the good faith or 5 otherwise of these documents -- and I think we can put 6 it that way -- I don't think is going to advance the 7 issue, because our issue really is perhaps they should 8 have prepared documents like this, this is what would 9 have been included, this would have ensured accuracy, 10 whereas a summary prepared later, which has handwritten 11 circles going around yes and no, two years after the 12 event, doesn't help. Do you see what I mean? 13 So I don't know that it's for us to start moving 14 into questions as to culpability as to a moral position. 15 We may be wrong there. That's an opening from me. 16 Perhaps what we will do is just have the morning tea 17 break now for 15 minutes, and you can tell me where you 18 think I may be wrong in my provisional and opening 19 position. Okay? 20 MR CHOW: Yes. 21 CHAIRMAN: Good. Thank you. 22 (11.23 am) 23 (A short adjournment) 24 (11.45 am) 25 CHAIRMAN: I just want to ask a couple of questions.</p>	<p>1 that's a compilation -- 2 MR WILKEN: Sir, there was a letter which was the covering 3 letter to this document, which you have not been shown. 4 CHAIRMAN: Okay. 5 MR WILKEN: And that makes clear the exercise that was going 6 on, and I will be taking the witness to it in 7 re-examination. 8 CHAIRMAN: Good. In which case, that then -- because, 9 putting it in its most basic terms, this Commission 10 doesn't want to be distracted by a long argument as to 11 how this documentation is to be interpreted -- 12 MR WILKEN: Yes, sir. 13 CHAIRMAN: -- in the sense of moral culpability for making 14 something look what it's not. Okay? 15 MR WILKEN: Sir -- 16 CHAIRMAN: And obviously, if in fact any bad faith is shown, 17 and none is suggested for one second here, against 18 Leighton or anybody else, but if it is shown by any 19 witness in the course of a Commission of Inquiry in the 20 public interest then that's a matter which obviously the 21 Commission will look at. 22 What I understand from Mr Brewster is, "Yes, these 23 documents didn't exist at the time, I understand them to 24 be nothing more than a summary of information obtained 25 from contemporaneous documents and put into an easily</p>
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<p>1 Mr Brewster, there was an exchange just before the 2 tea break, which you witnessed. Can we go to the one 3 document, the data, the compilation of data? 4 MR WILKEN: G12/9883? 5 COMMISSIONER HANSFORD: The one that was on the screen just 6 before the break. That's the one. 7 CHAIRMAN: There we go. 8 I just want to ask you a couple of questions about 9 that. My understanding is, from what you have said 10 already, that this form of document didn't exist in 11 2015. 12 A. That's my understanding. It was recently created as 13 a summary document. 14 CHAIRMAN: To your understanding, it's a recent document. 15 Perhaps someone else, like Mr Taylor, will assist us far 16 more in this regard. Would you agree that it's 17 unhelpful, to put it mildly, to supply a document in 18 proceedings like this, which is a compilation of 19 historical data, if in fact what you are doing, without 20 any intention implied, is making it look as if it is in 21 fact an old document, that is a document compiled back 22 in 2015, when this data was put there? 23 A. I wasn't involved in it, but my understanding is that 24 wasn't the intention, sir. 25 CHAIRMAN: But it's not good practice to make a document</p>	<p>1 understood set of terms, in compliance with the 2 request", no more than that. 3 MR WILKEN: Exactly, sir, and one gets the hint from the 4 document itself because it says at the top left corner 5 "As-built", so that could not exist in 2015. 6 CHAIRMAN: All right. And you say there's a letter which 7 again makes it clearer? 8 MR WILKEN: I can take you to it now, if it helps. 9 CHAIRMAN: Yes. 10 MR WILKEN: H14/7814. 11 COMMISSIONER HANSFORD: Just a point though, Mr Wilken, 12 "As-built" doesn't necessarily mean that it's new, 13 because once it's built, it's built. So you could have 14 a record as-built produced pretty close to the time it 15 was built. 16 MR WILKEN: You could, sir, but obviously if we're talking 17 about 2015 -- Mr Pennicott I see has risen, has already 18 introduced the concreting records and shown the 19 progress, so it would be difficult -- I haven't checked 20 the panels on this, but it would be difficult for there 21 to be as-builts in relation to some of the areas at 22 certain periods of 2015. 23 COMMISSIONER HANSFORD: I understand that. 24 MR PENNICOTT: Can we just see the date of the letter 25 Mr Wilken was about to show you? It's 29 August this</p>

<p style="text-align: right;">Page 53</p> <p>1 year.</p> <p>2 With respect, there's no point jumping in at the end 3 of the story rather than at the beginning of the story. 4 This is the end of the story.</p> <p>5 The beginning of the story is simply this -- and 6 it's all explained in the witness statements of the MTR, 7 and to some extent the government -- the retrospective 8 record that we were looking at at G9883 just a moment 9 ago came into existence at the beginning of June this 10 year.</p> <p>11 They were a whole series of them, relating to 12 different panels. They were attached by Leighton to 13 a series of RISC forms which were submitted to MTR. The 14 government wanted to inspect the RISC forms, so in four 15 days at the beginning of June the government went along 16 to the site office of the MTR, as I understand it, and 17 were shown these RISC forms with those documents 18 attached, that is the retrospective records.</p> <p>19 The government's position, as I understand it, is 20 that at that time certainly no explanation was given by 21 MTR/Leighton to the government that these were anything 22 other than contemporary documents. It only came two 23 months later, on 29 August, when it was pointed out that 24 they were indeed retrospective records. The government 25 officers who went along on the site visit at the</p>	<p style="text-align: right;">Page 55</p> <p>1 CHAIRMAN: Yes.</p> <p>2 MR CHOW: I am really puzzled, sir. I haven't posed my 3 question yet.</p> <p>4 CHAIRMAN: I appreciate that, but sometimes a question is -- 5 Mr Chow, you may be absolutely right, and this is one 6 occasion when perhaps timidity is the better part of 7 valour, and let me -- in case we are vaguely in the 8 right area, Mr Brewster, it seems to me, has said he 9 didn't realise this document existed at the time, he 10 hasn't been involved in compilation of data since or in 11 direct discussions with government. It seems that if 12 this issue arises, there may be other witnesses who can 13 better deal with it.</p> <p>14 So Mr Brewster has done his utmost and valiantly to 15 assist us in areas of all kinds, and I appreciate he has 16 that obligation because he has a very high position, 17 built on many years of experience. But if we're going 18 to go down this line, perhaps Mr Taylor might be 19 a better witness. I don't know.</p> <p>20 Now your question.</p> <p>21 MR CHOW: Perhaps before I answer to the question raised by 22 Mr Chairman before the break, can I just supplement to 23 my learned friend's submission earlier regarding the 24 inspection that was carried out by the government's 25 representative in early June this year?</p>
<p style="text-align: right;">Page 54</p> <p>1 beginning of June, it seems to me, reasonably 2 believed -- obviously we can cross-examine them in due 3 course -- that these were straightforward contemporary 4 documents.</p> <p>5 That's the beginning of the story at the beginning 6 of June 2018. It's no good, with respect, going to what 7 happened on 29 August.</p> <p>8 CHAIRMAN: All right. Thank you very much.</p> <p>9 MR WILKEN: If I can be allowed to finish my submission --</p> <p>10 CHAIRMAN: Yes.</p> <p>11 MR WILKEN: -- having heard what Mr Pennicott said, the 12 point goes to this. Mr Chow is cross-examining on 13 28 November, which is after 29 August. He is putting 14 a line of questioning that this document is relevant to. 15 And the only passage I want to refer you to is at 16 item (c), where it says:</p> <p>17 "The original of these documents was produced in 18 June 2018 and for some bays in the EWL slab, the 19 documents were updated recently to generally reflect the 20 replacement of couplers with straight through-bars ...", 21 et cetera.</p> <p>22 Mr Chow can properly put, "Yes, my witnesses didn't 23 understand that in June", but if he is going down that 24 line he has to put this document to my witness. That's 25 simply my point.</p>	<p style="text-align: right;">Page 56</p> <p>1 CHAIRMAN: Mmm.</p> <p>2 MR CHOW: Actually the document that has been put on the 3 screen is not the version that was provided to the 4 government inspector in early June. There was 5 an earlier version, and that version was without the 6 heading "As-built" at all. I will come to that. This 7 is part of my cross-examination and I haven't arrived at 8 it yet.</p> <p>9 CHAIRMAN: I appreciate that. The only problem I have, and 10 I come back to it again, is: is Mr Brewster the correct 11 witness to put this to?</p> <p>12 MR CHOW: Yes. Before the break, what I intended to do was 13 to take Mr Brewster to two letters. I took him to the 14 first letter before my learned friend Mr Wilken jumped 15 up. In fact, in my line of questions, I intended only 16 to take Mr Brewster to two letters, and the second 17 letter is precisely the letter Mr Wilken has shown you, 18 sir.</p> <p>19 The point that I made by that line of questions -- 20 we are not trying to dispute the element of good faith 21 in the preparation of that checklist at all, because at 22 the moment, according to Mr Brewster's evidence, he 23 truly believes that the RISC form together with the cast 24 in situ quality control form were sufficient to satisfy 25 the requirement. This is the evidence of Mr Brewster,</p>

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<p>1 even up to this very moment.</p> <p>2 What I intended to do is just demonstrate that</p> <p>3 Mr Brewster, at least in this particular respect, is</p> <p>4 less than frank, because in the two letters it is quite</p> <p>5 clear that -- first of all, in the first letter, what</p> <p>6 the Buildings Department was asking for is, "Leighton,</p> <p>7 please provide the documents required under the quality</p> <p>8 supervision plan, the logbook and the checklist", and</p> <p>9 about two weeks later Leighton produced the checklist</p> <p>10 that we see with the heading "As-built".</p> <p>11 Now, what this demonstrates is instead of what</p> <p>12 Mr Brewster now is telling the Commission, that he truly</p> <p>13 believed that the other two forms are sufficient, this</p> <p>14 may not be correct, because under Mr Brewster's own</p> <p>15 hand --</p> <p>16 CHAIRMAN: Okay, I think we have that, yes. Thank you.</p> <p>17 Mr Wilken?</p> <p>18 MR WILKEN: Sir, yes.</p> <p>19 CHAIRMAN: Do you have anything that you would like to say</p> <p>20 as to those questions being put, that relate to the</p> <p>21 letters?</p> <p>22 MR WILKEN: Sir, he's already put the point to Mr Brewster</p> <p>23 and had his answer I think on three or four occasions.</p> <p>24 MR CHOW: I haven't.</p> <p>25 MR WILKEN: Can I just finish?</p>	<p>1 leave it to the Commission as to how far we go down this</p> <p>2 line.</p> <p>3 CHAIRMAN: All right.</p> <p>4 Mr Chow, you already heard our concerns that</p> <p>5 Mr Brewster is not the person to deal with the history</p> <p>6 of this documentation; okay? That we think is better</p> <p>7 dealt with in detail with another witness or witnesses.</p> <p>8 We understand the point you are wishing to make in</p> <p>9 respect of Mr Brewster, which is a limited point now.</p> <p>10 It has been articulated already in open enquiry that</p> <p>11 there's an issue of frankness, and I think in fairness</p> <p>12 to Mr Brewster he is entitled to be able to answer that,</p> <p>13 and that means that you are entitled to put the</p> <p>14 particular questions. That's number one.</p> <p>15 As backup to that, obviously any suggestion, implied</p> <p>16 or otherwise, or even if it's in reserve, that there may</p> <p>17 not have been full frankness in dealing with this</p> <p>18 Commission, is a matter of some importance to the</p> <p>19 Commission itself. Therefore, the questions which you</p> <p>20 articulated, limited to that small area, I think can</p> <p>21 properly be put.</p> <p>22 MR CHOW: Thank you, sir.</p> <p>23 CHAIRMAN: Thank you.</p> <p>24 MR CHOW: Mr Brewster, can I ask you to go back to the</p> <p>25 letter of request from BD, bundle H14, page 7810,</p>
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<p>1 CHAIRMAN: Thank you. I will say who can speak, Mr Chow.</p> <p>2 Thank you very much.</p> <p>3 MR CHOW: I'm sorry.</p> <p>4 CHAIRMAN: I have asked Mr Wilken to address me.</p> <p>5 MR WILKEN: He's already put the question as to whether</p> <p>6 Mr Brewster believes that the RISC forms and the</p> <p>7 pre-pour concrete checks are sufficient document and</p> <p>8 he's already put the question, "You made this checklist</p> <p>9 in 2018. Should you have had this one in 2015?"</p> <p>10 Those, I submit, are perfectly legitimate questions</p> <p>11 and they fall fairly and squarely within the terms of</p> <p>12 reference and we made no objection to them.</p> <p>13 Where it becomes more interesting is my learned</p> <p>14 friend said he might be suggesting that Mr Brewster is</p> <p>15 not being quite frank. If he's going to make that</p> <p>16 suggestion, he has to put it fairly and squarely, and</p> <p>17 possibly in a short question, because Mr Chow criticised</p> <p>18 me for jumping up before he finished his question.</p> <p>19 I haven't jumped up before when there have been multiple</p> <p>20 and long questions put to this witness which have been</p> <p>21 somewhat confusing.</p> <p>22 I'm not sure where the line of questioning is going.</p> <p>23 I've said what I think is legitimate in terms of the</p> <p>24 questions that Mr Chow can ask in terms of</p> <p>25 record-keeping at the time. I've said my piece and I'll</p>	<p>1 please.</p> <p>2 This letter was addressed to you. Under items (b)</p> <p>3 and (c) of the request, BD asked for:</p> <p>4 "(b) All the checklists and inspection records of</p> <p>5 the technical competent persons under the stream of</p> <p>6 authorised signatory in relation to the construction of</p> <p>7 diaphragm wall and slabs (including EWL and NSL platform</p> <p>8 slabs);</p> <p>9 (c) The inspection logbook of the quality control</p> <p>10 supervisors representing the registered general building</p> <p>11 contractor [that is Leighton] in respect of the</p> <p>12 mechanical couplers works".</p> <p>13 Do you see that?</p> <p>14 A. I see that, yes.</p> <p>15 Q. Do you agree that in this letter the Buildings</p> <p>16 Department did not specify a particular type of</p> <p>17 checklist or particular form of checklist that they</p> <p>18 expect you to produce?</p> <p>19 A. No, they just asked for all checklists.</p> <p>20 Q. Let's go on to look at your response. The same bundle,</p> <p>21 H14, page 7813.</p> <p>22 This is a letter issued by you in response to BD's</p> <p>23 specific request. If you look at the bottom of the</p> <p>24 third page, 7815, this is your signature; is that right?</p> <p>25 A. Correct.</p>

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<p>1 Q. If you then go back to your specific answer to the 2 request (c) at page 7814, you said: 3 "[For] your request for '... inspection logbook of 4 the quality control supervisors representing the 5 registered general building contractor ... in respect of 6 the mechanical couplers steel works', 7 We refer to the construction records included in 8 appendices A2 and A3 for the EWL and NSL platform slabs 9 respectively. The construction records for each 10 concrete pour of the platform slabs include a signed 11 copy of the 'LCAL concrete quality control checklist' 12 which includes a hold point ... for the inspection of 13 couplers. We have also included in appendices A2 and 14 A3, a summary document entitled 'As-built for on-site 15 assembly of couplers' which shows, for example, the 16 arrangement of couplers in each concrete pour. The 17 original of these documents was produced in June 2018 18 and for some bays in the EWL slab, the documents were 19 updated recently to generally reflect the replacement of 20 couplers with straight through-bars for the east 21 diaphragm wall connection in areas B and C." 22 Now, given that without being requested by BD to 23 produce the form, the as-built checklist that you 24 referred to, Leighton automatically produced those 25 documents as an answer to the request for documents to</p>	<p>1 Q. Are you aware of the existence of this document in June 2 2018? 3 A. I can't recall. I may have seen it. There was a lot of 4 focus around that time on preparing the documents for 5 that BD inspection that you refer to. As I say, 6 I didn't prepare this. I cannot remember whether I saw 7 it or not. 8 Q. Okay. So obviously you have no idea as to who prepared 9 this list or who put the record -- the circles, for 10 example, in the lower part of the checklist; you have no 11 idea, right? 12 A. I don't, no. 13 CHAIRMAN: Sorry, I do apologise here again. I'm noticing 14 a couple of basic things which I'm sure are easily 15 explicable. Number one, this is a printed form, which 16 tends to suggest, if you're printing something, you're 17 going to use it more than once; it's going to be 18 a general form for use. 19 A. Yes. I think it's been used in various places, in the 20 bundles. Exactly where, I'm not sure where it fits, 21 but -- 22 CHAIRMAN: Okay. Then it's got a legend at the bottom, and 23 if you have a look at the legend, it says, "Cross out as 24 appropriate", "Satisfactory", "Not satisfactory", 25 "Ensure ease of connection", et cetera.</p>
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<p>1 be kept in the inspection logbook -- do you follow that? 2 A. Yes. 3 Q. That confirms that at that point, you believe that to 4 satisfy the requirement of the quality supervision plan, 5 the as-built checklist that we have just seen on the 6 screen is the kind of checklist that should have been 7 used during the execution of the site? Do you agree 8 with my suggestion? 9 A. I don't agree with your suggestion that that was the 10 kind of checklist that had to be used. As I said, we've 11 used our own system in compliance with the requirements 12 of the contract. 13 Regarding this particular form, it was an update 14 that was submitted under this letter, and again, I just 15 repeat, it was a summary document. It wasn't meant to 16 be anything more or anything less. 17 Q. Thank you, Mr Brewster. I will move on then. 18 Can I ask you to go to bundle H14, page 35067, 19 please. This is the checklist shown to the government's 20 inspectors their during the site inspection in early 21 June this year. You can take it from me. 22 If you look at the heading, it's put as "Checklist 23 for on-site assembly of EWL slab to D-wall/slab 24 couplers"; do you see that? 25 A. I can see that, yes.</p>	<p>1 To me, as a -- I use the term all the time, please 2 forgive me but it's necessary to preface it -- 3 layperson, I pick that up and think it's an ordinary 4 document for use every day, with instructions to the 5 engineers as to how to fill it out. 6 A. No. Well, it's a summary document prepared in sometime 7 circa June this year. 8 CHAIRMAN: Okay. 9 COMMISSIONER HANSFORD: I think we understand that because 10 we know that the box at the top that's got the diagrams 11 or the sections showing the bars and the number of bars 12 have been printed on there on the form, and that they're 13 therefore specific to a particular bay. Those won't 14 appear on every form; each form will be specific for 15 an individual bay, isn't that correct? 16 A. That would be my understanding, and then that was 17 revised subsequently, in the other one we were taken to, 18 the other document. This is the first iteration. 19 COMMISSIONER HANSFORD: What perhaps is slightly curious is 20 that while some of it is printed, some of it is actually 21 put on there in manuscript, and one wonders why, for 22 a summary document, it wasn't all printed on there, but 23 I'm sure we will come to that later. 24 A. I'm sorry, I can't help you with that one. 25 COMMISSIONER HANSFORD: I wasn't expecting you to. Thank</p>

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<p>1 you.</p> <p>2 MR CHOW: Mr Chairman, I have no more questions. I will sit</p> <p>3 down now.</p> <p>4 Thank you, Mr Brewster.</p> <p>5 CHAIRMAN: Thank you very much.</p> <p>6 Mr Boulding?</p> <p>7 MR BOULDING: I had no questions for this witness, but I'd</p> <p>8 like to take up an invitation you gave this morning</p> <p>9 during Mr Brewster's cross-examination by Mr Chow.</p> <p>10 You will recall that you were taken to or rather the</p> <p>11 witness was taken to clauses 3(b) and (c) of document</p> <p>12 H3930. It might be an idea to have it up.</p> <p>13 CHAIRMAN: Yes.</p> <p>14 MR BOULDING: You will recall that Mr Brewster was read the</p> <p>15 beginning of clause 3:</p> <p>16 "A quality supervision plan of the competent person</p> <p>17 and the RGBC/RSC is required to be submitted to this</p> <p>18 department prior to the commencement of the mechanical</p> <p>19 coupler works."</p> <p>20 And then we spent a little bit of time on (b) and</p> <p>21 (c), and in particular what the words there meant, and</p> <p>22 you will see, for example, in (b):</p> <p>23 "Frequency of quality supervision, which should be</p> <p>24 at least 20 per cent of the splicing assemblies by the</p> <p>25 quality control supervisor of the competent person ..."</p>	<p>1 document, please, sorry -- this is a police statement,</p> <p>2 and if you go to 35016.4 --</p> <p>3 COMMISSIONER HANSFORD: Sorry, this is a police statement</p> <p>4 produced by whom?</p> <p>5 MR WILKEN: By a witness for government.</p> <p>6 COMMISSIONER HANSFORD: Thank you.</p> <p>7 MR WILKEN: 35016.4, and if you look in the middle of this</p> <p>8 paragraph, you will see there highlighted, "photos of</p> <p>9 an area and some documents and photos related to the</p> <p>10 coupler as reference"; do you see that, Mr Brewster?</p> <p>11 A. I do, yes.</p> <p>12 Q. And the witness here is saying, "I used my personal</p> <p>13 phone to take photos", and if we go to the previous</p> <p>14 page, we should see -- yes, the bottom of the previous</p> <p>15 page:</p> <p>16 "On 6 June 2018, I acted on my senior's instructions</p> <p>17 to go to an MTR temporary office ..."</p> <p>18 Do you see that?</p> <p>19 A. I see that, yes.</p> <p>20 Q. So this document appears to have been taken from a photo</p> <p>21 at an MTR office?</p> <p>22 A. That would be the same office as ours, yes. It's</p> <p>23 a combined office.</p> <p>24 COMMISSIONER HANSFORD: Sorry, just to understand that</p> <p>25 answer. So this is an MTR office but I think I'm</p>
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<p>1 And Mr Brewster explained that that was MTR.</p> <p>2 CHAIRMAN: Yes.</p> <p>3 MR BOULDING: And you expressed a view as to the meaning and</p> <p>4 said "no doubt I will be corrected if I'm wrong". It</p> <p>5 seems to me to be a matter of legal argument but I do</p> <p>6 point out that the MTR witnesses who are coming very</p> <p>7 shortly to give evidence deal with this in terms of</p> <p>8 their understanding of this clause and how, so far as</p> <p>9 they are concerned, they satisfied it.</p> <p>10 CHAIRMAN: Yes.</p> <p>11 MR BOULDING: In particular, if you'd like a trailer of the</p> <p>12 evidence, I would invite you to go to Mr Kobe Wong's</p> <p>13 statement.</p> <p>14 I hope that's of assistance, sir.</p> <p>15 CHAIRMAN: It is. Thank you very much.</p> <p>16 Yes, Mr Wilken.</p> <p>17 MR WILKEN: Thank you, sir, and apologies to Mr Boulding for</p> <p>18 popping up unnecessarily when you had something to say.</p> <p>19 Re-examination by MR WILKEN</p> <p>20 Q. Very little re-examination. Can we just go to the last</p> <p>21 photograph that was shown to Mr Brewster. It's</p> <p>22 H14/35067.</p> <p>23 If we go to the very start of the document in which</p> <p>24 that exists -- so it's a long scroll back, I'm afraid,</p> <p>25 or you can come out and start again; go to the previous</p>	<p>1 hearing that MTR's and Leighton's office is the same</p> <p>2 office; is that correct?</p> <p>3 A. That is, yes. The same floor.</p> <p>4 MR WILKEN: I think the witness is just getting there on the</p> <p>5 question of layout. Can you explain --</p> <p>6 COMMISSIONER HANSFORD: Okay.</p> <p>7 MR WILKEN: -- the layout of the various offices?</p> <p>8 A. We share a floor. In essence, one end of the floor is</p> <p>9 with MTR and the other end is with our operation.</p> <p>10 COMMISSIONER HANSFORD: I understand. Thank you.</p> <p>11 A. So the documents made available were in our office and</p> <p>12 they were put in a conference room, and then MTR --</p> <p>13 I think this is how it went -- showed BD those documents</p> <p>14 in the room, and then -- we weren't there, I don't think</p> <p>15 MTR were there. So as to earlier comments, there would</p> <p>16 have been no opportunity to correct any misapprehensions</p> <p>17 about what that document referred to.</p> <p>18 MR WILKEN: Can we move on to another topic. You were asked</p> <p>19 yesterday about the joint statement in relation to the</p> <p>20 as-built drawings and you were asked some questions</p> <p>21 about why the plan showed "interim"; do you remember</p> <p>22 that?</p> <p>23 A. Yes, I do.</p> <p>24 Q. Can I take you to B19/25482. You can see paragraph 3.4</p> <p>25 at the top there:</p>

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<p>1 "MTR has agreed to a request from the government to 2 open up locations at (inter alia) locations along the 3 diaphragm wall ... The details of the opening up are 4 being considered and finalised. The as-constructed 5 works will be subject to verification upon opening up." 6 A. Yes, I can see that. 7 Q. What does that suggest to you? 8 A. That in order to satisfy concerns that people may have 9 regardless of what we come up with in evidence here, 10 that opening up the concrete and seeing the physical 11 outcome is going to allay those concerns. 12 Q. And what might the process of opening up do to any plan 13 that was produced before opening up? 14 A. "Plan", sorry? 15 Q. You were shown a plan, do you remember that, yesterday? 16 A drawing? 17 A. A drawing of, sorry? 18 Q. We'll go to it. It should be the immediately following 19 document. There we go. It is annex A1, please. You 20 will see here on the right-hand side -- 21 A. Oh, that drawing, sorry, yes. 22 Q. You remember that? 23 A. Yes. 24 Q. So you've seen the passage relating to opening up? 25 A. Yes.</p>	<p>1 A. Like I said, most jobs these days have got couplers and 2 I would anticipate, whether I'd any documents or not, 3 that a job of this size in the complexity that it is 4 would have thousands of couplers. It's inevitable, 5 especially when you've got D-walls. So while I may not 6 have had -- I can't recall seeing any documents at the 7 beginning, there was bound to be couplers. 8 CHAIRMAN: Sorry to interrupt you. I think your answer 9 really is encapsulated in, "It's one of those routine 10 things"? 11 A. It is. In a nutshell, sir, yes. 12 MR WILKEN: Finally, on the question of CVs in annex C, can 13 you go to H20/39722. 14 You will see there it says CV records "are included 15 in appendix C", and then if we then go to appendix C 16 which should be H20/39998. That's appendix C. And if 17 we go to 40008, you will see the CV of Mr Andy Ip? 18 A. Yes. 19 Q. And if you go to 40025, you will see there the CV of 20 Joe Leung? 21 A. Yes. 22 Q. And if you go to 40034 -- the previous page, 33 -- you 23 see there the CV of Edward Mok? 24 A. I see that, yes. 25 Q. And they are all Leighton employees, aren't they?</p>
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<p>1 Q. What might that do in relation to this plan? 2 A. Confirm the design amendment drawings submission as 3 being jointly prepared, confirm it. 4 Q. It will confirm -- 5 A. Confirm the details that are in that amendment. 6 Q. And what will the status of the plan be before that 7 confirmation? 8 A. It can only be interim until we jointly agree that it is 9 a true reflection of what's been built. 10 Q. Next topic, please. You were asked some questions this 11 morning about yesterday's transcript. 12 Can you be taken to that, please, page 94, lines 18 13 to 25. This was an answer yesterday: 14 "Let's move on to a slightly different topic. In 15 respect of couplers used in this project, you were aware 16 of the use of couplers, first, in this project, is that 17 correct, at the time? 18 Answer: At the time I wasn't aware, no. 19 Question: At the time you were not aware -- 20 Answer: It's one of those routine things. 21 I wouldn't be told about couplers, no." 22 Mr Chow put to you this morning that this was 23 equivalent to you saying you didn't know that couplers 24 were used. Would you care to expand on your answer in 25 light of that question this morning?</p>	<p>1 A. They are, yes. 2 MR WILKEN: Sir, I have no further questions by way of 3 re-examination. 4 CHAIRMAN: Thank you. 5 Mr Brewster, your evidence is completed. Thank you 6 very much for attending. It's been of considerable 7 assistance to us, and thank you. 8 WITNESS: Thank you. 9 (The witness was released) 10 MR WILKEN: The next witness will be Mr Buckland. 11 CHAIRMAN: Thank you. 12 MR WILKEN: Good morning, Mr Buckland. 13 WITNESS: Good morning. 14 Good morning, Mr Chairman. 15 MR WILKEN: Can you give your full name to the Inquiry, 16 please. 17 WITNESS: Brett Charles Buckland. 18 MR BRETT CHARLES BUCKLAND (sworn) 19 Examination-in-chief by MR WILKEN 20 MR WILKEN: Before we get to your evidence, it's usual with 21 Leighton witnesses for the Leighton barrister to show 22 where you sit in the organisation, so I'm just going to 23 go through that exercise now, if I may. 24 If we go to C7/5531, and we need to look on the 25 left-hand side, we see you sitting there as the</p>

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<p>1 engineering and risk manager. And if we go to the top 2 of that page, we see that is January 2015. 3 A. Mm-hmm. 4 Q. If we then go to 5536, you have moved to the right-hand 5 side of the page, and you are now sitting in the 6 commercial team, that's correct, and you are design 7 manager? 8 A. Yes. 9 Q. And the date of that is December 2015. 10 If we then go to 5537, this is September 2016, 11 you're still on the right-hand side, but you are now 12 design manager Brett Buckland, under "Engineering" and 13 underneath Justin Taylor? 14 A. Yes. 15 Q. Then if we go to 5538, end of September 2016, you're 16 still in the same position and that's the last reference 17 we have to you in the charts? 18 A. Yes. 19 Q. Mr Buckland, you have given four witness statements to 20 this Inquiry. Can you be shown C27/20800. Do you see 21 that on the screen? 22 A. Yes, I can. 23 Q. Is that the first page of your first witness statement? 24 A. It looks like it, yes. 25 Q. If you can go to 20811, is that your signature?</p>	<p>1 A. They are. 2 Q. Is that the evidence you wish to give to the Commission? 3 A. Yes. 4 Q. Is there anything you'd like to correct or alter? 5 A. Not at this time, no. 6 Q. Is the evidence given in those witness statements true 7 and correct as far as you're concerned? 8 A. To the best of my knowledge, yes. 9 MR WILKEN: Thank you. If you wait there, the man 10 immediately to my left will be asking you some 11 questions. There are various other counsel dotted 12 around the room who may be asking you some questions. 13 The chairman and professor may also have some questions 14 for you, and then I may ask you some questions at the 15 end, or I may not. 16 So if you please wait there, thank you. 17 Examination by MR CHEUK 18 MR CHEUK: Good morning, Mr Buckland. My name is Calvin 19 Cheuk, I'm one of the counsel for the Commission. 20 I have some questions for you. Thank you for coming to 21 assist the Inquiry. 22 Shall we first go to your witness statement, 23 C27/20800, paragraph 5. Here, you explain between March 24 2013 and 31 May 2015, you were the manager of the design 25 engineering team of Leighton for the Hung Hom Station</p>
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<p>1 A. Yes, it is. 2 Q. And it's dated 9 October 2018? 3 A. That's right. 4 Q. Can you now go to C32/24020. Is that the front page of 5 your second witness statement? 6 A. Yes. 7 Q. If you go to 24030, is that your signature? 8 A. Yes, it is. 9 Q. And it's dated 18 October 2018? 10 A. That's right. 11 Q. Then if you go to C35/26548, is that the first page of 12 your third witness statement? 13 A. Yes. 14 Q. And if you go to 26552, is that your signature? 15 A. Yes, it is. 16 Q. And it's dated the 2nd day of November 2018? 17 A. Yes. 18 Q. I'm correct -- I think I misspoke -- I thought I said 19 you have done four but I think it's three witness 20 statements. 21 A. That's right, yes. 22 Q. One gets lost in the iterations of the witness 23 statements. 24 Are those the three witness statements you have 25 given to the Commission?</p>	<p>1 project; correct? 2 A. Yes. 3 Q. Is it correct that in that position you were responsible 4 for overseeing design matters, including design changes, 5 on behalf of Leighton? 6 A. Yes. 7 Q. Then you say in the same paragraph you continued to 8 manage a section of the team until around mid-November 9 2015, and then you were transferred to the commercial 10 team for the project. 11 When you say "a section of the team", who was in 12 that section? Can you tell us? 13 A. It was still the design team, basically the same people 14 that I was managing before, but I was more focused on 15 the design as opposed to other aspects of the 16 engineering team. 17 Q. I see. So essentially there's not much change, when you 18 say you continued to manage a section of the team from 19 31 May 2015 up to November 2015? 20 A. Yes. The difference is I had -- there were sections of 21 the engineering team I was no longer responsible for, 22 like systems assurance and the risk side of it. 23 Q. And when you say "the engineering team", you are 24 referring more to the team in relation to site 25 supervision matters?</p>

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<p>1 A. No, no. I'm talking about the design engineering team 2 which was responsible for system assurance, risk, BIM. 3 We had a CAD team as well, as well the design side. So 4 we have design engineering and we have construction 5 engineering, so I was responsible for design 6 engineering. 7 Q. Okay. I take it that you were involved in Leighton's 8 design matters from March 2013 all the way up to 9 mid-November 2015, and then you were shifted to 10 commercial team and will have less involvement 11 afterwards? 12 A. Yes, but from around end of May to mid-November I was 13 also working or reporting to Justin Taylor, chief 14 engineer. So I was still dealing with the issues but 15 I had help from Justin as well. 16 Q. I see. So during that period you and Mr Taylor would 17 work together? 18 A. Yes. 19 Q. In your witness statement, you deal with design changes 20 of the connection between EWL slab, the eastern 21 diaphragm wall and the OTE slab; correct? 22 A. Yes. 23 Q. So can we start with some general questions first, 24 because this is quite a technical matter, and most of 25 the people in this hearing room are not in the same</p>	<p>1 the east diaphragm wall can be seen -- we see there's 2 a letter M on the right-hand side -- basically, we are 3 talking about horizontally the whole line of wall close 4 to the letter M, all the way between gridline 15 and 5 gridline 50? 6 A. Yes. 7 Q. That's the area we are focused on in your evidence; 8 correct? 9 A. That's correct. 10 Q. If we now go to H14, page 32920. You can take it from 11 me that this is a BD-accepted drawing showing the very 12 first, original design, back in 2013; okay? 13 We can see there's -- can we blow up the table in 14 the top right-hand corner a little bit and look at -- 15 A. Sorry, can you show the date of the drawing, please? 16 Q. Go to the date at the end.? 17 A. That's not the original drawing. This is dated 18 23 December 2013. 19 Q. Yes. Let me clarify. You can take it from me, for our 20 purpose, to examine the changes -- 21 A. Fair enough. 22 Q. -- that would be sufficient for our purpose; okay? 23 A. (Nodded head). 24 Q. If we focus on the table, on this top right-hand corner, 25 we see there's a table showing the connection detail for</p>
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<p>1 profession; we might take it slowly so that everyone can 2 understand the significance of your evidence. 3 Can we start with A1/250. This is the general 4 layout plan for the whole project; correct? 5 A. Yes. Not the whole project, just the station part of 6 the project. 7 Q. Yes, of course, the station of the project. When we are 8 talking about design changes here, we are actually 9 focusing on the diaphragm wall, east diaphragm wall, 10 located between gridline 15 to gridline 50. 11 A. Mm-hmm. 12 Q. So if we can go to gridline 15 first -- can we shift 13 a little bit -- on the left-hand side we can see 14 gridline 15; is that right? 15 A. Yes. 16 Q. That's more or less the starting point of area B? 17 A. That's right, yes. 18 Q. Then if we can move the screen slightly to the 19 right-hand side -- yes -- until 50, we see -- on the 20 right-hand side, we see the gridline 50? 21 A. (Nodded head). 22 Q. That's all the way up to what we call NAT, the North 23 Approach Tunnel? 24 A. Yes. 25 Q. So we are concerned with the east diaphragm wall, and</p>	<p>1 diaphragm wall, and then we see first of all area B -- 2 can we even blow up that part a little bit more -- we 3 see area B and then panel number, EH40 to EH46, that's 4 detail D; do you see that? Then area B, EH47 to EH55, 5 then that will have the connection detail E, E1. 6 Then similarly, down to area C -- we are not 7 concerned with WH -- WH is the western panel, that's why 8 I jump to below -- area C, we see the third-last row, we 9 see area C, EH55 [56] to EH115, we see again the 10 "Detail-E"; do you see that? 11 So that, sir, detail we are concerned with the whole 12 line of eastern panels. 13 If we go back to the whole drawing, from the table 14 we see -- we don't need to go through each drawing in 15 detail, but I think you can agree the most common form 16 of detail, connection detail, is actually detail E. 17 A. Mm-hmm. 18 Q. If we can look at detail E, which we can find 19 immediately below the two tables on the right-hand side, 20 that's the detail E which is the most common form of 21 construction detail as approved by the BD. 22 Can you help us here and correct me if I've got 23 anything wrong here. First of all, from the left-hand 24 side, we see the EWL slab; that's correct? 25 A. Correct.</p>

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<p>1 Q. And we see there's a dimension saying "3000", that's 2 3,000 millimetres? 3 A. Yes. 4 Q. Which means 3 metres deep. That's the slab. 5 Then we move to the middle part, that's the D-wall 6 we are concerned with. 7 A. (Nodded head). 8 Q. Then we move to the right-hand side of the middle part. 9 That's what we call the OTE. 10 A. Yes, that's right. 11 Q. Over -- 12 A. Over-track exhaust. 13 Q. Yes. So essentially it consists of three parts. Then 14 if we look at the rebar arrangement here, the first row, 15 if you look at from the slab, we see two rows of rebar 16 at the top section, going from the EWL slab into the 17 diaphragm wall. We can see that. 18 A. Yes. 19 Q. And T40 means it's diameter 40 millimetres. 20 A. Yes. 21 Q. Then there's one row of rebar at the top, going from the 22 diaphragm wall into the OTE; can we see that? 23 A. Yes. 24 Q. If we look at the two rows of rebar going from the slab 25 into the OTE, what we see is that they, after going</p>	<p>1 Q. Yes. Can I try my best to explain in my understanding, 2 and please do correct me if I'm wrong. This anchorage 3 is sort of like to make the joint between the slab and 4 the diaphragm wall more rigid and to prevent any sort of 5 rotation between the two parts of the concrete 6 structure; does that -- 7 A. It's not so much that. If you don't have that bond 8 stress, then it will be insufficiently held in place, so 9 it could actually pull loose if it doesn't have the 10 required anchorage. 11 Q. Yes. But I think you -- would you agree with me one of 12 the main functions of this anchorage is to make the 13 joint more rigid, stronger? 14 A. Well, yes, but it's not just to make it more rigid. 15 It's a requirement. 16 Q. Yes. 17 A. It's not sufficient without the required anchorage. 18 Q. Yes. Also, the two rows of rebars going into the 19 diaphragm wall were intended to be spaced out uniformly? 20 A. Yes, that's right. 21 Q. We also see the existence of what we call U-bars. 22 That's the bar going from -- forming a U-shape, going 23 from the left-hand side of the diaphragm wall, all the 24 way to the top, and then it goes horizontal at the top 25 and then goes downward again.</p>
<p>Page 82</p> <p>1 inside, into the diaphragm wall, they bend downward -- 2 A. Yes. 3 Q. -- to what we call provide anchorage? 4 A. That's right, yes. 5 MR SHIEH: (Whispered comment). 6 MR CHEUK: Did I say "OTE"? I said "OTE". I apologise. 7 A. I thought you meant OTE -- they have bars from both 8 sides doing the same thing. 9 Q. I apologise. I made a mistake. That's why I made the 10 caveat at the beginning that this is getting technical 11 and I'm certainly not an engineer. 12 Let's try again. I think Mr Shieh is absolutely 13 correct that two layers of rebar going from the slab, 14 going into the diaphragm wall and then bend downwards -- 15 A. Yes. 16 Q. -- we see the downward bend there, to provide what we 17 call anchorage. 18 Can you explain in simple terms the function of 19 anchorage, as we are not engineers? 20 A. Well, you see a certain length of rebar into the 21 concrete so that it can form a bond with the concrete, 22 like the higher -- the larger the size of bar, then the 23 longer that you need to anchor, because those bars take 24 a greater load, so you need to develop a longer length 25 to get the required bond stress.</p>	<p>Page 84</p> <p>1 A. Mm-hmm. 2 Q. That's what we call the U-bar; is that correct? 3 A. That's right, yes. 4 Q. And the U-bar, what we can see, it specifies there's 5 T40-150 U-bars", and we can see actually there's an 6 annotation next to the hatched area? 7 A. Yes. 8 Q. T40 again means the diameter is 40 millimetres. 150 9 means they should be spaced out at 150 millimetre space? 10 A. Yes. 11 Q. Again, can you explain to the best you can, in simple 12 terms, the function of U-bars in the structure? 13 A. Well, in this instance, the U-bar is to -- I believe 14 it's to connect the vertical bars from one side of the 15 D-wall to the other side of the D-wall, to provide 16 continuity. 17 Q. Okay. Thank you. So that we have seen -- and of course 18 we can also see couplers -- the two rows of rebars going 19 into the D-wall are connected by couplers? 20 A. (Nodded head). 21 Q. And then also there's one coupler connecting the rebars 22 inside the D-wall to the OTE slab, one at the top 23 section and the one at the lower section of the OTE? 24 A. Yes. 25 Q. That's the original BD's approved design, at least to</p>

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<p>1 the date we have just seen; okay? That's an original 2 design. 3 COMMISSIONER HANSFORD: Can I just get a little bit of 4 clarification. 5 MR CHEUK: Yes. 6 COMMISSIONER HANSFORD: So, Mr Buckland, you spoke about the 7 U-bar providing continuity between reinforcement on one 8 side of the diaphragm wall and the other side of the 9 diaphragm wall. 10 A. Well, I think its intention was to ensure proper 11 anchorage of the vertical bars. 12 COMMISSIONER HANSFORD: Ah. Okay. That makes more sense to 13 me. My next question was going to be: what is that 14 continuity for? 15 A. Yes. To be honest, I'm not entirely familiar with the 16 purpose of the U-bar itself, but that's what I believe 17 it's for, it's for the anchorage, like a mutual 18 anchorage between the two sides. 19 COMMISSIONER HANSFORD: Okay. That makes sense. Thank you. 20 MR CHEUK: Okay. Let's move on. If we compare this BD 21 accepted drawing with the as-built situation signed off 22 by MTRC, Leighton and Intrafor -- let's go to F1/789. 23 You can take it from me that this is the contemporaneous 24 records provided by Intrafor, showing what they built at 25 the time; okay?</p>	<p>1 Q. So, as I understand it, during construction the tremie 2 pipe's function is to pump concrete -- 3 A. Yes. 4 Q. -- to build the diaphragm wall. So, if you have 5 something according to the original design, which is 6 uniformly spaced at 150, then the tremie pipe would have 7 no space and the diaphragm wall could not be built? 8 A. That's correct. 9 Q. That's why this -- what we can see is a different 10 re-arrangement of the rebars, and instead of two rows, 11 because you cannot reduce the number of rebars, you move 12 some of the rebars originally at the location of the 13 tremie pipe to a separate row? 14 A. Yes. 15 Q. And that's why you have three rows? 16 A. Mm-hmm. 17 Q. If we shift the diagram to the right-hand side, and look 18 at section 4, this is a cross-section -- instead of 19 looking at the diaphragm wall frontally, we are trying 20 to cut through a section to look at it longitudinally -- 21 A. Mm-hmm. 22 Q. -- and see what's built there in this section. 23 Again, we can see, in this section, on the 24 right-hand side is the slab, which is around 3 metres 25 deep. But what we can see here, at the top part --</p>
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<p>1 A. (Nodded head). 2 Q. If we turn to the next page, 790 -- yes, this page -- if 3 we blow it up a little bit, and if we look at, for 4 example, the top right-hand corner -- the top left 5 corner, what we can see is the front elevation of 6 a panel which is concerned with -- what we are here is 7 concerned with EH98. You can take from me it's 8 concerned with EH98. 9 A. Yes. 10 Q. The detail A here we are concerned with, when we look 11 directly to the front of this panel; is that correct? 12 A. Yes. 13 Q. There's a tube, a circular, cylindrical drawing in the 14 middle; we can see that. That's what we call the tremie 15 pipe. 16 A. Yes. 17 Q. And we can see that the top section, if we can go to the 18 top section, this part, we can see three rows of rebars 19 going through the top part of the panel, but they were 20 deliberately arranged to avoid the location of the 21 tremie pipe -- 22 A. Correct. 23 Q. -- so as to provide space for the insertion of tremie 24 pipe. 25 A. Yes.</p>	<p>1 again, we see three rows of rebars; okay? 2 A. (Nodded head). 3 Q. And no U-bars were used. 4 That's, in summary, the most critical difference 5 between the originally accepted drawing and what was 6 built by Intrafor at the time; is that correct? 7 A. Yes, and also the L-shaped bars. 8 Q. Yes, the lack of anchorage. You are absolutely correct. 9 The rows of rebars, instead of bending down to provide 10 anchorage, they go straight through, from one side of 11 the diaphragm wall to the other side. That's something 12 we will go through, in the chronology of the events. 13 A. Mm-hmm. 14 Q. Let's call this what I call the "first change", for 15 convenience purpose -- 16 A. Mm-hmm. 17 Q. -- ie the change between the BD accepted drawings and 18 Intrafor's as-built situation; okay? 19 But we know that this was not what was finally 20 constructed in the project. There were some other 21 changes, after Intrafor's as-built condition. I will 22 just call it, for convenience purpose, "second change". 23 According to you, if we go back to your witness 24 statement, C27/20807, paragraph 27, you very helpfully 25 explain to us in summary what was involved in the second</p>

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<p>1 change.</p> <p>2 Essentially, the second change involves, first of</p> <p>3 all, the top of the diaphragm wall being trimmed down</p> <p>4 for about 420 millimetres, and continuous rebars instead</p> <p>5 of couplers would be used to connect the EWL slab, the</p> <p>6 eastern diaphragm wall and the OTE slab. And the third</p> <p>7 element of what I call the second change is that the EWL</p> <p>8 slab, the top part of the diaphragm wall and the OTE</p> <p>9 slab would be concreted monolithically, ie in one go.</p> <p>10 A. Yes.</p> <p>11 Q. We will come across this word "monolithically" very more</p> <p>12 often if we go to subsequent chronology, and that will</p> <p>13 raise some issues, as you have explained in your witness</p> <p>14 statement; right?</p> <p>15 A. (Nodded head).</p> <p>16 Q. So it is these two changes that I wish to discuss --</p> <p>17 CHAIRMAN: Sorry, does "monolithically" mean in one go or in</p> <p>18 one piece? I've got it --</p> <p>19 A. Both.</p> <p>20 CHAIRMAN: I thought "monolithic" meant you pour it, even if</p> <p>21 you pour it in several goes, which you wouldn't want to,</p> <p>22 I appreciate that, but it's all just to end up with one</p> <p>23 block? That's the better term. Thank you.</p> <p>24 MR CHEUK: Yes, I think that's my understanding.</p> <p>25 CHAIRMAN: That's the understanding. Good. Thank you.</p>	<p>1 give it a good -- a nice finish at the end of the panel,</p> <p>2 something that can be easily connected to, with a flush</p> <p>3 joint.</p> <p>4 MR CHEUK: Thank you, Professor.</p> <p>5 But can I just clarify with you one point. In</p> <p>6 paragraph 23 here, on the screen, from the third line</p> <p>7 you said:</p> <p>8 "This is what happened in relation to the Change."</p> <p>9 And the "Change" was capitalised. And if you go to</p> <p>10 paragraph 7, that's at page 20801, you actually define</p> <p>11 the word "Change" here, which was concerned with change</p> <p>12 from couplers to through-bars. That's more in relation</p> <p>13 to what I call the second change.</p> <p>14 A. Yes.</p> <p>15 Q. So if we go back to your paragraph 23, at 20806, it</p> <p>16 seems to me that this "Change", the word, should not be</p> <p>17 capitalised, and you are generally referring to the</p> <p>18 first change instead of the second change. Do</p> <p>19 I understand the context of your paragraph 23 correctly?</p> <p>20 You are here referring to the reason for the first</p> <p>21 change instead of the "Change".</p> <p>22 A. Yes, I think it's the first change.</p> <p>23 Q. Now let's go to what happened after the first change.</p> <p>24 If we can go to H10/4840. You can take it from me, this</p> <p>25 is a letter on 27 January 2015 from the MTRC to the BD,</p>
<p>Page 90</p> <p>1 MR CHEUK: So if we first go to the first change details, if</p> <p>2 we go to your witness statement, C27/20806,</p> <p>3 paragraphs 23 to 24 -- basically, you here explain the</p> <p>4 reasons why there was the first change, and in short --</p> <p>5 I have already gone through with you some of the</p> <p>6 details -- these changes were necessitated by the need</p> <p>7 to accommodate the tremie pipe during the construction</p> <p>8 process, and therefore the original layout of the rebars</p> <p>9 were re-arranged. That's primarily the reason for the</p> <p>10 first change; is that correct?</p> <p>11 A. There's also the stop-ends. The stop-ends were about</p> <p>12 400 millimetres wide, at either end of the wall panels.</p> <p>13 Some had one in there and some had two. There was</p> <p>14 primary, secondary and tertiary or final panels, and the</p> <p>15 primary panels would generally have two stop-ends in, so</p> <p>16 that would take out 400 millimetres at each end of the</p> <p>17 panel as well. I don't think I've mentioned that in --</p> <p>18 COMMISSIONER HANSFORD: I think, Mr Buckland, there aren't</p> <p>19 many people in this room that know what a stop-end is,</p> <p>20 so it might be helpful if you just explain that.</p> <p>21 A. Okay. Well, it's a way of -- it's put in at the end of</p> <p>22 a trench, when trenching to form a D-wall, so that you</p> <p>23 come to do the next panel along, you pull the stop-end</p> <p>24 out so you can then cast against the completed end of</p> <p>25 the first panel that's been cast. It's basically to</p>	<p>Page 92</p> <p>1 seeking BD's approval of the certificate of completion,</p> <p>2 record plans and associated submissions for the first</p> <p>3 batch of diaphragm walls at areas A and C?</p> <p>4 A. Yes.</p> <p>5 Q. Were you aware of this letter at the time?</p> <p>6 A. Yes.</p> <p>7 Q. Then similarly, we go to 4906. On 4 February 2015, we</p> <p>8 see this is a letter, MTRC is seeking BD's approval</p> <p>9 of certificate of completion, record plans and</p> <p>10 associated submissions for the second batch of diaphragm</p> <p>11 walls at area -- what we call HKC, Hong Kong Coliseum.</p> <p>12 A. Yes.</p> <p>13 Q. If we turn to 4935, this is again a letter by MTRC to</p> <p>14 seek BD's approval of certificate of completion, record</p> <p>15 plans, et cetera, for the diaphragm walls at areas SAT,</p> <p>16 area A and area C; is that correct?</p> <p>17 A. Yes.</p> <p>18 Q. In summary what happened is this: at the beginning of</p> <p>19 2015, some of the diaphragm walls were completed, so</p> <p>20 MTRC is seeking the approval of a certificate of</p> <p>21 completion from the BD in batches, and what we have just</p> <p>22 shown you is batch 1 to batch 3 applications.</p> <p>23 A. Yes.</p> <p>24 Q. Now if we go to H11/5517, you can see this is a record</p> <p>25 of meeting between MTRC, Atkins and the BD on 14 April</p>

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<p>1 2015, ie after the three batch submissions.</p> <p>2 You can see the time was 3 pm to 3.45 pm, and the</p> <p>3 agenda was to discuss D-wall reinforcement details at</p> <p>4 connection, and MTRC was attended by Mr Andy Leung,</p> <p>5 Kevin Yip and Victor Li, and DDC, that's detailed design</p> <p>6 consultant, ie Atkins?</p> <p>7 A. Correct.</p> <p>8 Q. CK Chan, WC Lee and David Wilson. Then there are</p> <p>9 representatives from the RDO, Railway Development</p> <p>10 Office, and BD team.</p> <p>11 Were you aware of the meeting at the time?</p> <p>12 A. I'm not aware of this particular meeting, no.</p> <p>13 Q. Okay. Then if we go to 5520, same bundle, you can take</p> <p>14 it from me that this is an internal note of the BD.</p> <p>15 What it records --</p> <p>16 A. It's internal note of BD, but sent to who?</p> <p>17 Q. It was circulated first within the BD but probably it</p> <p>18 has been also sent to other parties subsequently, but</p> <p>19 originally --</p> <p>20 A. To MTR or where?</p> <p>21 Q. Yes. But you were aware of this note at the time?</p> <p>22 A. I don't recognise it.</p> <p>23 Q. But what we can see from paragraph 2 is that it records</p> <p>24 some points of what was discussed during that meeting,</p> <p>25 14 April 2015, and what it says is that:</p>	<p>1 A. Well, what do they include by "covered up"?</p> <p>2 Q. No, the timing, the August 2013 refers to the beginning</p> <p>3 of Intrafor's work.</p> <p>4 A. Yes, that's right.</p> <p>5 Q. And:</p> <p>6 "-- Structural safety and serviceability concern to</p> <p>7 existing station structures and future station."</p> <p>8 We see the third bullet point there. And:</p> <p>9 "-- Potential programme impact if remedial works</p> <p>10 required."</p> <p>11 So, in summary, we can see you don't necessarily</p> <p>12 agree with BD, but there's a big concern after the</p> <p>13 meeting on 14 April 2015; correct? And were you aware</p> <p>14 of this concern at the time?</p> <p>15 A. Yes. Sorry, I was only aware of the concern about the</p> <p>16 differing details but I don't agree with that second</p> <p>17 point of covering up anything. That's not true.</p> <p>18 Q. Yes. I understand your position. You don't accept the</p> <p>19 criticism here, but you were aware of their concern at</p> <p>20 the time?</p> <p>21 A. Yes, because we had a change in detail and we were</p> <p>22 taking actions to get it approved.</p> <p>23 MR CHEUK: Chairman and Professor, I have two questions and</p> <p>24 then I will go to them separately. I am aware of the</p> <p>25 time but if you can allow me.</p>
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<p>1 "D-wall construction deviated from accepted proposal</p> <p>2 without prior design acceptance. Notified BO team on</p> <p>3 14 April 2015."</p> <p>4 Then bullet point 1:</p> <p>5 "-- Critical moment connection for 27 ... span new</p> <p>6 roof slab supporting existing/future station structure."</p> <p>7 Can you tell us, to your knowledge, what does that</p> <p>8 refer to, "27 ... span new roof slab"?</p> <p>9 A. That sounds like the EWL slab.</p> <p>10 Q. Yes, that's my understanding too. Because it's on the</p> <p>11 top of the NSL, that's why it's referred to as the roof</p> <p>12 slab; correct? That's your understanding?</p> <p>13 A. It sounds a bit long though, because I thought it was</p> <p>14 21 metres.</p> <p>15 Q. Okay. We probably don't need to quibble the length, but</p> <p>16 I think we can understand and agree the roof slab was</p> <p>17 referring to the EWL; correct?</p> <p>18 A. Yes.</p> <p>19 Q. Then the second bullet point:</p> <p>20 "-- Covered up the major revision of ongoing</p> <p>21 foundation works for 2 years (since August 2013)."</p> <p>22 Ie the beginning of Intrafor's -- the D-wall time.</p> <p>23 Do you agree with that?</p> <p>24 A. Do I agree with that statement?</p> <p>25 Q. Yes, the August 2013 --</p>	<p>1 CHAIRMAN: Yes, please continue with your two questions.</p> <p>2 MR CHEUK: On H10/5130 this is BD's letter in response to</p> <p>3 the three batch applications for certificate of</p> <p>4 completion given to MTRC.</p> <p>5 If we pull down, we can see paragraph 3:</p> <p>6 "In the meeting with your representative on 14 April</p> <p>7 2015, it is noted that the reinforcement details at the</p> <p>8 top of some eastern diaphragm walls (along gridline M)</p> <p>9 have been constructed not in accordance with the</p> <p>10 accepted proposal. In this connection, you are required</p> <p>11 to review and clarify if any of the said modified</p> <p>12 diaphragm walls are included in the captioned batch of</p> <p>13 as-built diaphragm wall submission."</p> <p>14 Do you see that?</p> <p>15 A. Mm-hmm.</p> <p>16 Q. Were you also aware of this letter at the time?</p> <p>17 A. Can you just scroll to the top of the letter again?</p> <p>18 Q. Yes, please. Can the witness be shown the top of the</p> <p>19 letter.</p> <p>20 It's not addressed to Leighton, it's addressed to</p> <p>21 the CP, of course of MTRC.</p> <p>22 A. I may have seen it, I probably did, but I can't remember</p> <p>23 for sure if I did.</p> <p>24 Q. But you were aware of rejection by BD of the application</p> <p>25 for certificate of completion in relation to the three</p>

Page 97	1 batches that we have seen at the time? 2 A. Yes. 3 Q. Do I understand correctly that consequently, if we are 4 talking about the time as of 21 May 2015, MTRC, Leighton 5 and Atkins needed to deal with this issue, ie they 6 needed to properly incorporate and justify the first 7 change to the BD before they could get the approval of 8 certificate of completion and record plans at the time; 9 correct? 10 A. Yes. 11 MR CHEUK: Chairman and Professor, I have finished my two 12 questions. I think this might be an appropriate time. 13 CHAIRMAN: That's fine. Thank you. It's an hour or an hour 14 and 15 minutes. Make it 2.15. Thank you. 15 (1.05 pm) 16 (The luncheon adjournment) 17 (2.20 pm) 18 MR CHEUK: Mr Buckland, you will recall that before the 19 lunch break we were talking about the situation as of 20 21 May 2015, when BD just rejected the first batch to 21 the third batch application for a certificate of 22 completion in relation to the D-walls. You remember 23 that? 24 A. Yes. 25 Q. Now let's carry on with what happened around that time;	Page 99	1 Hong Kong -- 2 A. Yes, around sea level. 3 Q. Yes, and that's the mark of 0mPD, and every level in 4 Hong Kong will measure against that mark. 5 A. Yes. 6 Q. And, if you are below that, then you are in a negative, 7 and if you are above that you are in the region of 8 positive? 9 A. Correct. 10 Q. Now let's look at this diagram, B229. You can take it 11 from me it's been produced by Mr Aidan Rooney of MTRC, 12 for the illustration of the section of the Hung Hom 13 Station. 14 I think it might help us to understand where this 15 negative 0mPD comes from, that's why I hope you can 16 assist us to look at this diagram. Okay? 17 A. Okay. 18 Q. If we look at this diagram, it shows, of course, the 19 cross-section of the Hung Hom Station; right? 20 A. Yes. 21 Q. The green part is the EWL slab; right? 22 A. Yes. 23 Q. And the red part is the NSL slab? 24 A. Correct. 25 Q. And the orange part is the two diaphragm walls?
Page 98	1 okay? Is it correct that at around a similar time, 2 during the early part of 2015, since some of the 3 diaphragm walls were already completed, the next stage 4 would be for Leighton to carry out excavation works, 5 first down to negative 0.5mPD? 6 A. Yes. 7 Q. And then below. 8 COMMISSIONER HANSFORD: I think Mr Buckland needs to be told 9 to say "yes" because then it goes on to the transcript, 10 rather than nodding his head. 11 MR CHEUK: Yes. You might need to speak up a little bit so 12 that your voice and what you say can be captured on the 13 transcript. 14 A. Okay. 15 Q. Now if you can go to B1/229. 16 CHAIRMAN: Do I have to know what negative 0.0mPD is? 17 MR CHEUK: Yes. I'm coming to that. 18 CHAIRMAN: Good. Thank you. 19 MR CHEUK: B1/229. Bundle B1, page 229. Yes, that's the 20 diagram. 21 Before we look into this diagram, can you explain to 22 us what's the meaning of "mPD" first? 23 A. Metres post-datum. 24 Q. Yes. Essentially, as I understand, there is some mark 25 in Hong Kong which is fixed at certain points in	Page 100	1 A. Yes. 2 Q. If we look at the left-hand side, there's a hatched 3 part, horizontal line, which says plus 4.33 -- can we go 4 to the left-hand side, in the middle, and blow that up 5 a little bit -- on the left-hand side, can we see that 6 it says "plus 4.33 approximately existing ground level", 7 and with an inverted triangle and some hatched lines? 8 A. Yes. 9 Q. That's the level, plus 4.33mPD, of the existing ground 10 level; correct? 11 A. Yes. 12 Q. So from here we know that the existing ground level 13 around Hung Hom Station is approximately plus 4.33mPD; 14 right? 15 A. Yes. 16 Q. So, in order to build this Hung Hom Station, if we look 17 below the 4.33mPD, we see the bottom level of the green 18 slab, ie the EWL slab, we see the level is negative 19 0.18mPD; is that right? 20 A. Yes. 21 Q. So, talking about the building procedure of this 22 station, after the orange part of the diaphragm wall is 23 completed, what Leighton needs to do is to carry out 24 excavation work from the ground level, ie plus 4.33mPD, 25 and go down, excavate down to somewhere around negative

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<p>1 0.5mPD; is that correct?</p> <p>2 A. Correct.</p> <p>3 Q. And why it's 0.5mPD is because it's slightly below the</p> <p>4 0.18mPD, ie the bottom level of EWL slab; correct?</p> <p>5 A. Yes.</p> <p>6 Q. So that the workers of Leighton can start to carry out</p> <p>7 the bending rebar/re-fixing work, et cetera. That's the</p> <p>8 first level to provide the working environment for</p> <p>9 Leighton workers; is that correct?</p> <p>10 A. Yes.</p> <p>11 Q. And afterwards, after you excavate to 0.5mPD, what</p> <p>12 Leighton workers will do is to connect the rebars and</p> <p>13 pour the slab for the EWL slab?</p> <p>14 A. In simple terms, yes.</p> <p>15 Q. Then the green part of the EWL slab will connect with</p> <p>16 the diaphragm wall; that was the intended procedure?</p> <p>17 A. Correct.</p> <p>18 Q. After this part is completed, then Leighton would carry</p> <p>19 on further excavation, down to the level of the NSL</p> <p>20 slab?</p> <p>21 A. No.</p> <p>22 Q. Can you tell me what should happen afterwards?</p> <p>23 A. We first have to install diagonal struts, roughly about</p> <p>24 halfway down, between the NSL slab and the EWL slab, to</p> <p>25 support the walls before further excavation.</p>	<p>1 retaining wall against the pressure from both sides;</p> <p>2 correct?</p> <p>3 A. Yes.</p> <p>4 Q. Also, the green part, the EWL slab, actually, after</p> <p>5 their completion, they also serve a very important</p> <p>6 function as struts?</p> <p>7 A. Yes.</p> <p>8 Q. To facilitate the whole excavation process?</p> <p>9 A. That's right.</p> <p>10 Q. So, while you can set up what you call some diagonal</p> <p>11 struts between the green slab and the red slab, which</p> <p>12 are temporary and will be removed once the station is</p> <p>13 constructed, the green slab serves two functions. One,</p> <p>14 in the process of excavation it serves as a strut to</p> <p>15 facilitate the excavation work?</p> <p>16 A. Yes.</p> <p>17 Q. Two, it also serves part of the permanent works;</p> <p>18 correct?</p> <p>19 A. Correct.</p> <p>20 Q. Now we can put away this diagram. If we go to J1,</p> <p>21 page 92 -- in order to carry out excavation works, as</p> <p>22 a matter of procedure, Leighton or MTRC would need to</p> <p>23 obtain consent from BD to commence excavation works; is</p> <p>24 that correct?</p> <p>25 A. No.</p>
<p>Page 102</p> <p>1 Q. I see. Yes.</p> <p>2 So before you excavate down to the red part of the</p> <p>3 slab, between the green part and the red part you need</p> <p>4 to establish, set up, some horizontal struts?</p> <p>5 A. They are actually diagonal in this case.</p> <p>6 Q. Diagonal, yes. The purpose of this is to provide</p> <p>7 support to the diaphragm walls --</p> <p>8 A. Yes.</p> <p>9 Q. -- which act as retaining walls against the pressure of</p> <p>10 both sides of the soil?</p> <p>11 A. Yes.</p> <p>12 Q. To prevent the collapse of the two diaphragm walls?</p> <p>13 A. Yes.</p> <p>14 Q. So that the workers can safely excavate below?</p> <p>15 A. Correct.</p> <p>16 Q. And the workers, after the set-up of these diagonal</p> <p>17 struts, they can carry on to excavate down below to</p> <p>18 somewhere slightly below the red slab, and then repeat</p> <p>19 the reinforcement works and the construction of the red</p> <p>20 slab?</p> <p>21 A. Yes.</p> <p>22 Q. This is what Leighton call the top-down approach?</p> <p>23 A. Yes. That's a standard term.</p> <p>24 Q. In this excavation process, as you have just told us,</p> <p>25 the two orange parts of the diaphragm wall would act as</p>	<p>Page 104</p> <p>1 Q. Can you explain a little bit what is required before --</p> <p>2 A. My understanding of the consultation process is that</p> <p>3 consent and approval is not required. What's required</p> <p>4 is consultation, and then acceptance of the submission.</p> <p>5 Q. Yes. But before -- after the acceptance of plans,</p> <p>6 before the actual commencement of the excavation works,</p> <p>7 do you need some agreement from the BD?</p> <p>8 A. Yes.</p> <p>9 Q. Let's call it -- to avoid the different language adopted</p> <p>10 in the Buildings Ordinance and the IoE, let's call it</p> <p>11 BD's agreement instead of consent; okay?</p> <p>12 A. Okay.</p> <p>13 Q. But you do need some form of agreement from the BD</p> <p>14 before you can commence the actual excavation work?</p> <p>15 A. (Nodded head).</p> <p>16 Q. Okay. In order to obtain such BD's agreement, what</p> <p>17 Leighton or MTRC would do is to submit some report to</p> <p>18 the BD, to justify that it is safe to carry out the</p> <p>19 excavation works; is this right?</p> <p>20 A. Yes.</p> <p>21 Q. And usually it would be in the form of a design report</p> <p>22 or what you guys call temporary works report, and submit</p> <p>23 it to the BD in order to obtain such agreement; is that</p> <p>24 correct?</p> <p>25 A. Correct.</p>

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<p>1 Q. What we can find here, in this page, is one of the 2 temporary works design reports called TWD-004B2, and 3 this is one of -- this is the report prepared by Atkins 4 team B, on the instruction of Leighton; correct? 5 A. Yes. I would call it Leightons/Atkins team. 6 Q. Okay. We don't have any implication in terms of calling 7 it team A or team B, but that sort of phrase is used in 8 the witness statement, so I might use it from time to 9 time but it doesn't carry any connotation or specific 10 implication. 11 A. That's fair enough. 12 Q. Forgive me if I use "team A" or "team B". 13 A. Mm-hmm. 14 Q. We can see the date of this report is May 2015, ie it's 15 roughly around the time you received the rejection from 16 BD, of the three batches. 17 A. Oh, okay. 18 Q. We are talking about roughly the same time; okay? 19 If we turn to page 94, we can see -- actually, the 20 first issue was issued back in December 2014; do you see 21 that? 22 A. Yes. 23 Q. And the second issue, A2, then prepared in February 24 2015, and the third issue, revision B1, March 2015, and 25 the fourth issue, B2, which is this report, was prepared</p>	<p>1 we see an email from Edward Tse of Atkins to Philip 2 Daynes, McCrae, et cetera, and you were copied in; do 3 you see that? 4 A. Yes, I can see that. 5 Q. According to Mr McCrae, that's the email by which they 6 sent the TWD-B4 report to Leighton. 7 A. Mm-hmm. 8 Q. Did you read the report at the time? 9 A. I'm sure I probably did but I can't remember exactly if 10 I read it in detail. It could have been read by my 11 design manager. 12 Q. Yes, certainly it will not be a test of memory to you. 13 If we go back to J1/106, paragraph 1.3.5, it says: 14 "Secondary measures of provision of additional rebar 15 at mid-span due to missing U-bar in diaphragm wall." 16 Okay? This missing U-bar in diaphragm wall is the 17 issue that was raised by BD because of the first change; 18 correct? 19 A. Correct. 20 Q. "In order to maintain the fixed end design for the 21 D-wall along gridline K and the 3 metre EWL slab 22 assumption, the OTE is to be concreted with EWL slab 23 concurrently to achieve the full tension lap for slab 24 rebars. The section is shown [in] figure 1-4 below." 25 If I may read on and then I will ask you some</p>
<p>1 in around May 2015; you can see that? 2 COMMISSIONER HANSFORD: Can I just be clear, are these 3 Atkins' names here? 4 MR CHEUK: They are. 5 COMMISSIONER HANSFORD: Thank you. 6 MR CHEUK: But I can confirm with the witness. 7 A. They are, yes. 8 COMMISSIONER HANSFORD: Thank you. 9 MR CHEUK: So this report was prepared by team B on the 10 instructions of Leighton and various issues were 11 prepared from December to May, December 2014 to May 12 2015; correct? 13 A. Correct. 14 Q. Then if we turn to bundle J4, page 3351 -- you can take 15 it from me that this is the witness statement of 16 Mr McCrae of Atkins team A and team B; okay? 17 A. Yes. 18 Q. If you look at paragraph 51, what he tells us is that: 19 "On 14 May 2015 ... at 19:52, team B provided 20 a draft report to Leighton TWD-004B2." 21 That's the report we have just seen; correct? 22 A. Correct. 23 Q. It's provided to Leighton on 14 May 2015, okay, 24 according to Mr McCrae. 25 If we turn to bundle C16, page 10846, at the bottom</p>	<p>1 questions; okay? 2 COMMISSIONER HANSFORD: Will we be taken to figure 1-4? 3 MR CHEUK: Yes, certainly. We will go into that in some 4 detail. 5 COMMISSIONER HANSFORD: Thank you. 6 MR CHEUK: Another paragraph following that: 7 "As a secondary measures, an additional 50 per cent 8 of hogging moment will be redistributed to sagging 9 moment at the mid-span of the EWL slab, and the 10 associated rebar will be enhanced with affecting the end 11 rebar. It is assumed that the moments are to be 12 distributed between the D-wall/slab accordingly to their 13 stiffness to ensure that no overstress [of] D-wall due 14 [to] excessive moment from the much stiffer 3 metre EWL 15 slab. The design checking of moment redistribution for 16 the EWL slab is presented in appendix G5a." 17 First of all, I can tell you I have no idea what 18 this says, but what I can try to confirm with you is 19 that what in gist, in layman terms, it is about -- 20 I wonder if you can assist me -- first of all, this, as 21 we have talked about, at the time in May 2015, there was 22 an issue about the first change raised by BD. There was 23 a concern of BD at the time; correct? 24 A. Correct. 25 Q. And this paragraph is actually the remedial proposal,</p>

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<p>1 proposed by Atkins team B, to address BD's concern at 2 the time; correct? 3 A. Correct, but I understood that the additional rebar in 4 the slab was an additional safety measure, it was not 5 actually required, but I know that MTR's Andy Leung had 6 a concern, or it may have been BD had a concern, about 7 the building over the top, the Fosters building above 8 the Hung Hom Station, and the deflection of those 9 columns. So they thought it prudent but to put in 10 additional bars in the mid-slab. But it was shown not 11 to be required because sufficient anchorage was 12 calculated in the walls without the U-bar. 13 Q. Mr Buckland, certainly I understand your position, which 14 essentially what you just told us is the additional 15 rebar at the mid-span is just a precautionary measure, 16 not really remedial in the strict sense? 17 A. That's what I understood, yes. Well, no, it's part of 18 the remedial, but it was additional measure as part of 19 the remedial. 20 Q. What I'm really concerned with is this proposal, whether 21 you call it remedial or not, is really linked to BD's 22 concern raised in relation to the first change at the 23 time. It appears here because of BD's concern raised at 24 the time; correct? 25 A. Yeah, but I'd like to clarify that it's not just BD that</p>	<p>1 are you saying that actually this proposal actually 2 arose even in the first version of this report, that is 3 back in December 2014? 4 A. No. No. 5 Q. So when this proposal first appeared? 6 A. Basically it happened when we submitted the as-built 7 drawings. So we developed the as-built drawings around 8 the end of 2014 and then made the first submission in 9 January 2015, and around that time we realised that 10 although we had been told back in 2013 that U-bars were 11 not required, we realised that it hadn't actually 12 been -- like the calculations hadn't been done to 13 justify it yet. So it was when we submitted the 14 as-built drawings, we identified that, and started 15 working with Atkins to remedy it. But this wouldn't 16 have gone into the report straightaway, because I had 17 discussions with the Atkins designers on how to address 18 it first, and then they were going to the BD with MTR 19 and discussing it. 20 Q. So if we go back to 94, we see the different version 21 dates of this report. When do you say it first 22 appeared? Is it in A1, A2, B1 or B2 version? 23 A. B2 is the first time it went into the report, I believe, 24 because -- 25 Q. That's what I understand.</p>
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<p>1 were concerned. We had already identified this a couple 2 of months earlier ourselves, and we knew it was 3 a concern already, and Atkins had already been working 4 on the possible remedials. 5 Q. Yes, certainly. 6 COMMISSIONER HANSFORD: Sorry, just to understand that. So 7 the additional measure was put in not as a requirement 8 of BD but because of something that had already been 9 identified; is that your evidence? 10 A. Well, it's kind of in parallel because we -- the 11 identification of the missing U-bars was already known 12 a long time ago, but when the BD got the drawings there 13 was some -- there was a mistake in producing the 14 as-built drawings so that they initially showed the 15 U-bar, which didn't match the drawings that were being 16 given by Intrafor. 17 COMMISSIONER HANSFORD: Yes. 18 A. Then later on we corrected that so they didn't show the 19 U-bar, and that's when BD picked it up. But we had also 20 identified that ourselves and were working in parallel 21 with the -- towards measures to correct it. 22 COMMISSIONER HANSFORD: I see. Thank you. 23 MR CHEUK: But, Mr Buckland, because in the bundles that 24 I have read, I do not find, apart from this version 4B, 25 the previous version of this temporary design report --</p>	<p>1 A. Sorry, this report is for the excavation and slab. 2 Q. I know. That's why I asked you to explain the process 3 first. But I just confirm with you that the proposal 4 itself actually only first appeared in this B2 version 5 report? 6 A. Yes. 7 COMMISSIONER HANSFORD: Can I also ask, the yellow 8 highlighting that we see, is that significant? 9 MR CHEUK: No. My understanding is it's done 10 retrospectively -- we have used the word quite often 11 now -- by those parties producing these documents, not 12 contemporaneous highlighting. 13 COMMISSIONER HANSFORD: So the original report did not have 14 the highlighting? 15 MR CHEUK: That's my understanding. 16 COMMISSIONER HANSFORD: Thank you. 17 MR CHEUK: Now we go back to page 106, to look at the 18 proposal. 19 As I understand, in simple layman language terms, 20 there are two aspects this proposal requires. First, 21 there would be some additional rebar to be provided at 22 the middle of the EWL slab; correct? 23 A. Correct. 24 Q. The second aspect is that there will be some additional 25 anchorage provided, and the EWL slab, the OTE and the</p>

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<p>1 D-wall will be concreted concurrently or monolithically; 2 correct? 3 A. Yes. 4 Q. That's in gist the two aspects of this proposal. 5 If we turn to the next page, we see the diagram, 6 which actually is much easier to understand for a layman 7 like me. If we can go to this diagram in a bit more 8 detail, we first see the hatched part, there's a hatched 9 legend saying, "OTE and EWL slab to be concreted 10 concurrently". 11 A. Correct. 12 Q. And we can see it hatched three parts: the left-hand 13 side, ie the OTE; the top part of the D-wall; and also 14 the slab. Do I understand the meaning of this is that 15 there would be some trimming down of the D-wall first, 16 otherwise you cannot concrete them together? 17 A. Yes, correct. 18 Q. So the implication of this diagram actually is that 19 there would be some trimming down of the top part of the 20 concrete wall, and then the three parts would be 21 concreted together? 22 A. Yes. 23 Q. Also, from this diagram, what we can see is that there 24 are still three rows of rebars; right? 25 A. Yes.</p>	<p>1 red in white lines; correct? 2 A. Oh, in the OTE? Yes, I can see that. 3 Q. My understanding of this is that it implies this is not 4 a through-bar proposal. It implies there are considered 5 to be different sections. So this proposal actually 6 retains the use of couplers at that point of time? 7 A. How do you work that out? 8 Q. Because they are different lines. 9 A. You are basing that on black lines shown, which could be 10 just a visual representation, to see it more clearly. 11 Q. Yes. That's my understanding. I have no -- I am 12 inferring from this use, so I'm just asking you if you 13 can help me or not. I will take you to other documents 14 but at this point of stage, I'm just wondering if you 15 can help me to know what was exactly the proposal as of 16 May 2015. 17 A. My understanding of the proposal is that these were 18 through-bars to replace the bars that were there that 19 had couplers. 20 Q. Okay. 21 A. And in order to do that, we had to break down the D-wall 22 to that point, to put the through-bars in. 23 Q. Yes. 24 A. And there's no indication of couplers on those bars, as 25 you can see.</p>
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<p>1 Q. And there's a bending up at the left-hand side, at the 2 OTE slab; correct? 3 A. Yes. 4 Q. And the bending up of the OTE slab is the new anchorage 5 provided by this proposal, to replace the missing 6 anchorage, ie in the original BD-accepted design? 7 A. Yes. 8 Q. And this is to address the missing anchorage problem; 9 correct? 10 A. Yes, again. 11 COMMISSIONER HANSFORD: Sorry, you seemed a bit doubtful 12 about that answer, Mr Buckland. 13 MR CHEUK: You can challenge me anytime. I'm not an expert. 14 A. It sounded like the same question twice. 15 COMMISSIONER HANSFORD: You might want to expand on it if 16 you wish. 17 A. It sounded like you asked the same question twice, so 18 I was just checking it was the same question. 19 MR CHEUK: I apologise. I just try to be reassured because 20 this is not my familiar area. 21 Another point which I try to identify is that you 22 can tell -- you can see, if we blow up the drawing 23 a little bit more regarding the three red lines, we can 24 see the red lines within the diaphragm wall is red in 25 black lines; right? While the red lines in the OTE is</p>	<p>1 Q. Yes. 2 COMMISSIONER HANSFORD: Sorry, just so I can understand this 3 diagram -- are there any couplers there at all in that 4 section? In either the top mat or the bottom mat; are 5 there any couplers? 6 A. I think you can faintly see the couplers on the lower 7 bars, the lower L-shaped bars. 8 COMMISSIONER HANSFORD: In the -- 9 A. There are two. 10 COMMISSIONER HANSFORD: Down here, in this. 11 A. There's three bars at the bottom of the slab, which you 12 can see faintly couplers. 13 COMMISSIONER HANSFORD: You can. 14 A. And the two bars of the bottom of the OTE, I think you 15 can just about see couplers there as well. 16 COMMISSIONER HANSFORD: Right. So this is showing couplers 17 on the bottom mats of both the EWL slab and the OTE, but 18 no couplers on the top? 19 A. Yes. 20 COMMISSIONER HANSFORD: Thank you. 21 MR CHEUK: Then if we go to page 142, we can see the 22 proposal was also explained here a bit, in particular 23 the highlighted part: 24 "The top of diaphragm wall panel will be trimmed to 25 the lowest level of top rebar for the EWL slab (minimum</p>

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<p>1 420 ... below the top level of the EWL slab).</p> <p>2 The top rebar of EWL slab at the D-wall panel will</p> <p>3 then fix to the top rebar of OTE slab to achieve full</p> <p>4 tension laps."</p> <p>5 What it appears to me is unclear is still whether</p> <p>6 couplers will be used or a through-bar will be used. It</p> <p>7 doesn't really say clearly here.</p> <p>8 A. There are also bars in the OTE that need to be lapped</p> <p>9 with -- the bars of the OTE wall need to be lapped with</p> <p>10 the OTE slab.</p> <p>11 Q. That to you is an indication of through-bars or not?</p> <p>12 A. No. It's saying that the top rebar of the EWL slab will</p> <p>13 fix to the top rebar of the OTE slab, but if you can</p> <p>14 have a bar that continues all the way through, then you</p> <p>15 don't need to connect it.</p> <p>16 Q. Then it's an indication of couplers still?</p> <p>17 A. No, it's not an indication of couplers or lapping. It's</p> <p>18 just saying that the top bars of the EWL slab will be</p> <p>19 connected with the OTE slab. Whether they actually need</p> <p>20 physical connections or whether they're continuous, it</p> <p>21 doesn't imply anything there.</p> <p>22 Q. Exactly. That's what I heard, it's not absolutely clear</p> <p>23 from here whether it's retaining the use of couplers or</p> <p>24 using a through-bar.</p> <p>25 Then if we read on:</p>	<p>1 Do you agree with me?</p> <p>2 A. Can you repeat it?</p> <p>3 COMMISSIONER HANSFORD: Yes, I don't understand it either</p> <p>4 MR CHEUK: Because the problem -- the proposal, the remedial</p> <p>5 proposal for the first change that we have seen, about</p> <p>6 how to remedy the missing U-bar, involved changes to the</p> <p>7 D-wall, at least hacking off the 400 millimetres; right?</p> <p>8 A. No. That's not the case. I think BD needed to know</p> <p>9 that the D-wall, as constructed, was acceptable to</p> <p>10 continue on with the subsequent works of EWL slab, and</p> <p>11 by demonstrating that what we had built in the D-wall</p> <p>12 was acceptable, then they could then allow us to go on</p> <p>13 to the next stage. So we didn't actually have to change</p> <p>14 anything in the D-wall because we had demonstrated the</p> <p>15 vertical bars had sufficient anchorage without the</p> <p>16 U-bar, and by this proposal we had demonstrated</p> <p>17 sufficient anchorage of the EWL slab top bar, by</p> <p>18 continuing it through to the OTE slab. So, after that,</p> <p>19 they were satisfied that the D-wall, as constructed, was</p> <p>20 acceptable.</p> <p>21 Q. Let me explain to you my query, because you might be</p> <p>22 right. Let me explain what's in my mind.</p> <p>23 At the time, when you applied for certificate of</p> <p>24 completion, which means Leighton or MTRC considered the</p> <p>25 D-wall has been completed, but at the same time, if you</p>
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<p>1 "The EWL slab and OTE slab will be casted</p> <p>2 concurrently with temporary openings around the existing</p> <p>3 columns ..."</p> <p>4 I think we agree on what it means; yes?</p> <p>5 Now, I wonder if we can do a bit of summary of the</p> <p>6 position as of around 21 May 2015. There were, it</p> <p>7 seems, according to our discussion, two issues at the</p> <p>8 time. The first issue is that MTRC, Leighton and Atkins</p> <p>9 needed to properly incorporate and justify the first</p> <p>10 change to the BD so as to obtain its approval of the</p> <p>11 certificate of completion and record plans of the</p> <p>12 D-walls. That's the first issue.</p> <p>13 A. Yes.</p> <p>14 Q. The second issue at the time was the parties, ie MTRC,</p> <p>15 Leighton and Atkins, were also trying to obtain BD's</p> <p>16 consent for the commencement -- agreement, I would say,</p> <p>17 for the commencement of the excavation works. That's</p> <p>18 why they prepared this report.</p> <p>19 A. Mm-hmm.</p> <p>20 Q. There was, however, it seems to me, one problem standing</p> <p>21 in the way of both, ie the proposal for the first change</p> <p>22 we have just seen, which might, one, affect the BD's</p> <p>23 approval of the certificate of completion and the record</p> <p>24 plans, because the BD would not approve that when they</p> <p>25 knew it was actually subject to change very soon.</p>	<p>1 tell the BD, "Actually, some further work, including the</p> <p>2 hacking down of 420 millimetres will be necessary",</p> <p>3 that's contradictory to your application for certificate</p> <p>4 of completion?</p> <p>5 A. Yes.</p> <p>6 Q. And record plans?</p> <p>7 A. Yes. I guess, if they had been presented with that at</p> <p>8 that time, then it would have conflicted with what they</p> <p>9 had in their hands at the time.</p> <p>10 Q. That's why I first -- when I put it to you the proposal</p> <p>11 to -- as set out here caused concern of the two issues</p> <p>12 I put to you earlier. The first issue is that on the</p> <p>13 one hand you are trying to tell the BD, "We have</p> <p>14 completed everything"; on the second hand, you are</p> <p>15 telling them, "Actually, it's not completed, it will be</p> <p>16 subject to change very soon." So that will be a concern</p> <p>17 in the minds of MTRC, Leighton and Atkins; is that</p> <p>18 correct?</p> <p>19 A. Yes, but I need to clarify that the remedial proposal</p> <p>20 presented to BD was achievable without breaking down the</p> <p>21 wall, because the concept is to continue the bars</p> <p>22 through the D-wall into the OTE slab. So whether we</p> <p>23 screwed in bars into the OTE slab side or hacked down</p> <p>24 the D-wall and replaced it with continuous bars, it's</p> <p>25 still the same concept.</p>

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<p>1 Q. I understand your position. You regard it as the same 2 concept. But I'm just raising, the proposal as set out 3 here did involve the hacking down of D-wall, which -- 4 I'm just trying to put very neutrally -- should be 5 a concern of BD when you are applying for the 6 certificate of completion at the same time. Do you 7 accept that?</p> <p>8 A. I wasn't directly involved with the discussion with BD 9 so I can't comment on whether that would have been 10 acceptable or not.</p> <p>11 Q. And the remedial proposal, what I'm also trying to 12 suggest to you, is also a concern to BD, when you are 13 trying to obtain their agreement for the commencement of 14 excavation work, because, as we have discussed, the 15 diaphragm walls were acting as retaining walls, 16 resisting the pressure of the soil from both sides. So, 17 if you try to tamper with the top part of the diaphragm 18 wall, that will raise a concern of BD, whether it will 19 give consent or agreement to commence the excavation; is 20 that correct?</p> <p>21 A. Actually, from my recollection, because we were only 22 going to excavate down to minus 0.5mPD and we had 23 an open-cut proposal, that meant it wasn't going to 24 affect the D-wall because the top of the D-wall would be 25 freestanding, with open-cut slopes on either side. So</p>	<p>1 in the D-wall or by cutting down the D-wall and 2 replacing it with a continuous bar.</p> <p>3 So if the decision was taken to leave the couplers 4 in the D-wall, then it's perfectly reasonable to not 5 include it in this version of the report.</p> <p>6 Q. Yes. But why I'm putting the proposition to you is 7 rather very mild, actually, because you see you use this 8 report to obtain agreement from the BD for excavation to 9 consent, and if the proposal is not relevant you would 10 not have included it in this report in the first place.</p> <p>11 So, by the very reason you included this in the 12 report, you must -- even from your own stance, it must 13 be relevant to the BD's consideration of granting you 14 the excavation agreement?</p> <p>15 A. I disagree.</p> <p>16 Q. Thank you. Now I am coming to what you mentioned about 17 the correspondence or some conversation regarding the 18 submission of the reports; okay?</p> <p>19 If we go to J2/1669 -- if we look at the email here, 20 it's an email dated 22 May 2015, so just one day after 21 BD's rejection of the application for certificate of 22 completion. It's from Betty Ng of Leighton to 23 Edward Tse of Atkins, I believe, and it was cced to you, 24 we see your name there; right?</p> <p>25 A. (Nodded head).</p>
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<p>1 I think a decision was taken that it was not necessary 2 to submit reinforced concrete details for the slab at 3 that time.</p> <p>4 Q. Yes, actually, exactly, I'm going to go with you into 5 that sort of communication.</p> <p>6 But am I right to say that this proposal would 7 potentially raise a concern and/or is a relevant factor 8 for the BD's consideration in granting agreement to 9 excavate? Is that a fair way to put it?</p> <p>10 A. The question is do I consider it --</p> <p>11 Q. Agree with my statement to you that the remedial 12 proposal as set out here is a relevant consideration for 13 the BD to grant agreement to excavate?</p> <p>14 A. I don't think it's necessarily relevant, if we decide 15 not to proceed with it.</p> <p>16 Q. That's subsequently, but the only reason that you put 17 the proposal here in the temporary design report was to 18 submit it to the BD for the purpose of obtaining 19 agreement to excavate, isn't it? That is the very 20 purpose, and you include the proposal in the report.</p> <p>21 A. Well, there's two aspects to it. One is, like, how do 22 we deal with the changed rebar arrangement in the 23 D-wall, and Atkins came up with the proposal -- well, in 24 discussion with ourselves and MTR -- and that proposal 25 could be executed either by using the existing couplers</p>	<p>1 Q. So the email says as follows: 2 "Edward, 3 As spoke, I disagree we put ..." 4 Before I go into detail, is it correct that Betty Ng 5 was reporting to you at the time?</p> <p>6 A. Yes.</p> <p>7 Q. If I may carry on with the content here, it says: 8 "Edward, 9 As spoke, I disagree we put the 'missing U-bar' 10 remedial in our ELS submission as BD do not know about 11 this 'formally' and MTR will reflect the changes in the 12 coming DDC amendment submission." 13 Let's try to clarify the language here. So the 14 missing U-bar remedial is the proposal that we have just 15 seen; correct?</p> <p>16 A. Yes.</p> <p>17 Q. "In our ELS submission" is the report TWD-004B that we 18 have just seen; correct?</p> <p>19 A. (Nodded head).</p> <p>20 Q. And the last bit, "the coming TDC amendment 21 submission" -- "DDC" means detailed design consultant, 22 ie Atkins; correct?</p> <p>23 A. Yes.</p> <p>24 Q. And "DDC amendment submission" relates to permanent 25 works submission?</p>

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<p>1 A. Yes.</p> <p>2 Q. And the ELS submission relates to temporary works</p> <p>3 submission; correct?</p> <p>4 A. Yes.</p> <p>5 Q. What in here she says in gist here is that she doesn't</p> <p>6 want the proposal to go in the temporary works report,</p> <p>7 but would rather the proposal to be reflected in the</p> <p>8 coming permanent works report; correct?</p> <p>9 A. Yes.</p> <p>10 Q. Then I move to the next paragraph:</p> <p>11 "Also the design changes are different from the</p> <p>12 endorsed TWD-025C and DDC amendment submission."</p> <p>13 This TWD-025C is another different temporary works</p> <p>14 design report; right?</p> <p>15 A. Yes.</p> <p>16 Q. And what she says here is that the proposal we have seen</p> <p>17 is different from the then endorsed detail approved by</p> <p>18 the BD; correct?</p> <p>19 A. Yes.</p> <p>20 Q. And:</p> <p>21 "TWD-004B -- again", she says, "we only need to</p> <p>22 demonstrate to BD the minimum stiffness is used to match</p> <p>23 TWD-025C and the DDC amendment submission.</p> <p>24 Understand you will speak to Kevin Yip on the</p> <p>25 submission strategy, please give us a feedback</p>	<p>1 So, no matter what the D-wall details were at the time,</p> <p>2 it would have no impact on the D-wall, so there would be</p> <p>3 no reason for BD to reject the submission because the</p> <p>4 D-wall was not going to be used at that time.</p> <p>5 Q. Yes. We will come to the details in subsequent emails.</p> <p>6 What is in gist here is that petty Ng didn't want the</p> <p>7 remedial proposal --</p> <p>8 A. Sorry, can I correct you there?</p> <p>9 Q. Yes.</p> <p>10 A. It does say that -- I don't know if it says in this</p> <p>11 email but she has said in one of her emails that it was</p> <p>12 subsequent to speaking with Kevin Yip of MTR.</p> <p>13 Q. Yes. We will take you to that in due course. What I am</p> <p>14 trying to summarise in gist here is that Betty Ng didn't</p> <p>15 want the proposal to be included in the TWD report</p> <p>16 because she's afraid that might raise, to her mind,</p> <p>17 unnecessary concern of the BD which might delay the</p> <p>18 excavation agreement from the BD.</p> <p>19 A. Yes.</p> <p>20 Q. Is that a fair way to put it?</p> <p>21 A. Yes.</p> <p>22 Q. Okay. Let's move on to J2/1668. We see Edward Tse's</p> <p>23 reply, the previous page, at the bottom -- because it's</p> <p>24 arranged in reverse order, that's why we read from the</p> <p>25 bottom up. So this is Edward Tse's reply to Betty Ng</p>
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<p>1 afterwards."</p> <p>2 So, in gist, what I understand from this email is</p> <p>3 that she wants to take back the remedial proposal from</p> <p>4 the temporary works design report, and hopefully it will</p> <p>5 be reflected by MTRC in the permanent works design</p> <p>6 report in the future. One of the reasons was the</p> <p>7 remedial proposal was different from the endorsed report</p> <p>8 as known to BD at the time. She doesn't want to</p> <p>9 complicate the issue.</p> <p>10 A. Well, the TWD-25 report is for the D-wall, and the</p> <p>11 remedial proposal wouldn't be shown in the D-wall</p> <p>12 submission anyway. But the DDC reports include the</p> <p>13 whole of the primary structures, so including the</p> <p>14 D-walls and the slabs.</p> <p>15 So our concern was that -- well, and MTR's concern,</p> <p>16 I believe -- if we submitted rebar details that included</p> <p>17 the remedial proposal with our temporary works</p> <p>18 submission, it would clash with what was already with</p> <p>19 BD.</p> <p>20 Q. Exactly.</p> <p>21 A. It would cause further delay. So, instead of submitting</p> <p>22 a full excavation submission, to excavate all the way</p> <p>23 down to the NSL slab, we decided to submit just</p> <p>24 a temporary works, a very temporary works submission,</p> <p>25 of open-cut submission that wouldn't affect the D-wall.</p>	<p>1 and he says:</p> <p>2 "Betty,</p> <p>3 If not putting this item in this submission and</p> <p>4 follow to what you suggest to put it in DDC document,</p> <p>5 your remedial proposal should be ready now before DDC</p> <p>6 could incorporate that on 10 June?"</p> <p>7 First of all, regarding the sentence, do</p> <p>8 I understand correctly that what Edward Tse is asking</p> <p>9 Betty Ng to do is you need to give more detail to the</p> <p>10 remedial proposal so that it could be incorporated on</p> <p>11 10 June permanent works submission? Do I understand</p> <p>12 correctly?</p> <p>13 A. Actually, I've been trying to figure out exactly what he</p> <p>14 means here. It may be that he was expecting that the</p> <p>15 detail be incorporated into that submission that was</p> <p>16 coming up in a few days, and that probably wasn't the</p> <p>17 idea. The idea was probably for the next submission.</p> <p>18 Q. He probably made a mistake on that; that's your</p> <p>19 understanding?</p> <p>20 A. Yes.</p> <p>21 Q. Okay. Carry on:</p> <p>22 "Also" --</p> <p>23 A. Also, sorry, him asking us -- asking Betty to provide</p> <p>24 more details -- it's actually Atkins providing the</p> <p>25 remedial details, so I also don't understand that</p>

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<p>1 request from him. It's not us providing the remedial.</p> <p>2 Q. It's okay. It's not the most important part of this</p> <p>3 email so ...</p> <p>4 If I may carry on:</p> <p>5 "Also, as mentioned in the meeting yesterday with</p> <p>6 Andy Leung ..."</p> <p>7 Andy Leung is a design manager of MTRC; correct?</p> <p>8 A. Mm-hmm.</p> <p>9 Q. "... he also said we should keep what we are in the</p> <p>10 contractor slab submission on the additional rebar at</p> <p>11 mid-span."</p> <p>12 First of all, if I may clarify with you, the</p> <p>13 reference to the "contractor slab submission on the</p> <p>14 additional rebar at mid-span", that is a reference to</p> <p>15 the remedial proposal; is that correct?</p> <p>16 A. Yes.</p> <p>17 Q. In essence, he said Edward Tse discussed with Andy Leung</p> <p>18 yesterday, ie on 21 May, and Andy Leung said "should</p> <p>19 keep the remedial proposal".</p> <p>20 A. I think it should read "what we have" but ...</p> <p>21 Q. And then:</p> <p>22 "For TWD-025, I understand there will be</p> <p>23 a resubmission due 29 May 2015 which would include the</p> <p>24 missing U-bar detail. So I can't see why this item not</p> <p>25 include in this document. Please clarify."</p>	<p>1 COMMISSIONER HANSFORD: Yes.</p> <p>2 A. -- and had horizontal couplers and that wasn't going to</p> <p>3 change. So when he talks about putting the remedial</p> <p>4 into the D-wall submission, that doesn't make sense.</p> <p>5 COMMISSIONER HANSFORD: I think it's a bit difficult for us</p> <p>6 to interpret what Mr Edward Tse may have been trying to</p> <p>7 say here, when neither the witness knows or -- we can't</p> <p>8 tell from reading it, can we?</p> <p>9 MR CHEUK: Yes, certainly. I'm doing the best I can.</p> <p>10 COMMISSIONER HANSFORD: I know you are.</p> <p>11 MR CHEUK: He's copied in. I'm trying to see -- he's the</p> <p>12 highest position keeping track of this communication, so</p> <p>13 I'm not going to debate with him at any point here but</p> <p>14 I'm trying to see if he can assist to a certain extent</p> <p>15 as best we can.</p> <p>16 A. I think maybe what he means is that since the latest</p> <p>17 version of the D-wall submission was going to show the</p> <p>18 actual details, the actual --</p> <p>19 Q. The remedial?</p> <p>20 A. Not the remedial, the actual rebar that was in the</p> <p>21 D-wall -- since it was going to show that, then he</p> <p>22 couldn't understand why we wouldn't have the remedial</p> <p>23 detail shown in the slab submission.</p> <p>24 Q. Okay. So if we scroll down a little bit, let's see --</p> <p>25 COMMISSIONER HANSFORD: Sorry, when you say "perhaps he was</p>
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<p>1 What he in essence says is that actually the rebar</p> <p>2 remedial proposal would be included in the TWD-25 which</p> <p>3 would be submitted to the BD on 29 May. So the BD would</p> <p>4 know about this remedial proposal by then anyway, so</p> <p>5 what's the point of keeping it from the BD in TWD-004B2?</p> <p>6 Do I understand that correctly?</p> <p>7 A. Something doesn't make sense in here, because TWD-25 is</p> <p>8 a D-wall submission, and the rebar remedial wouldn't be</p> <p>9 shown in the D-wall submission. It would only reflect</p> <p>10 the actual -- like what we knew was the actual rebar in</p> <p>11 the D-wall. The actual remedial itself would show up in</p> <p>12 the slab submission, not the D-wall submission.</p> <p>13 Q. So you --</p> <p>14 A. So I think in this case Edward was maybe --</p> <p>15 Q. Mistaken?</p> <p>16 A. -- a bit out of the loop and not quite --</p> <p>17 Q. He's mistaken but his point is that actually the detail,</p> <p>18 the remedial proposal would be revealed to the BD soon</p> <p>19 in another submission, so what's the point of keeping it</p> <p>20 from the BD in this submission? That's in essence his</p> <p>21 point; right? And --</p> <p>22 COMMISSIONER HANSFORD: Is that his point though?</p> <p>23 A. Like I say, it's a bit confused because what goes into</p> <p>24 the D-wall submission is the D-wall rebar itself, and</p> <p>25 the D-wall rebar, as we know, was missing U-bars --</p>	<p>1 out of the loop", do you mean out of the loop in terms</p> <p>2 of the submission strategy?</p> <p>3 A. Yes. That's why Betty asked him to speak to Kevin.</p> <p>4 COMMISSIONER HANSFORD: Yes.</p> <p>5 A. And to speak to his boss, Rob McCrae.</p> <p>6 COMMISSIONER HANSFORD: Yes. I understand now. Thank you.</p> <p>7 MR CHEUK: We see now Betty replying to Edward Tse. Again,</p> <p>8 you were copied in.</p> <p>9 A. Yes.</p> <p>10 Q. She said:</p> <p>11 "Edward, Rob,</p> <p>12 Further to the discussion with Kevin yesterday ..."</p> <p>13 "Kevin" was Kevin Yip from the MTRC?</p> <p>14 A. That's right.</p> <p>15 Q. "... for the initial excavation down to negative 0.5mPD,</p> <p>16 confirmed that we are not going to submit TWD-004B to BD</p> <p>17 for not to confuse BD and complicate the issue."</p> <p>18 That's the point you just made?</p> <p>19 A. Correct.</p> <p>20 Q. So what was said here is that originally, as</p> <p>21 I understand it, the TWD-004B report was to justify the</p> <p>22 agreement of BD for all the excavation?</p> <p>23 A. Yes, I think that was the intention before.</p> <p>24 Q. That was the original intent?</p> <p>25 A. Yes.</p>

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1 Q. But, as a result of discussion, in order not to confuse
 2 the BD or complicate the issue, as stated here, what you
 3 guys decided was to do it in two phases.
 4 A. Mm-hmm.
 5 Q. On the first phase, you excavate to negative 0.5mPD.
 6 A. Yes.
 7 Q. For that purpose, you guys decided not to submit the
 8 004B report.
 9 A. Yes.
 10 Q. Which included the remedial proposal; correct?
 11 A. Correct, but just to note, there was a separate report
 12 dealing with the remedial proposal.
 13 Q. Yes. I'm coming to that, rest assured. I've gone
 14 through the documents. I'll take you to that. You are
 15 referring to the permanent design report; right?
 16 A. Yes.
 17 Q. We'll go to that, but let's focus on this stage first.
 18 "As we only need BD's approval to start the initial
 19 bulk excavation and the D-walls have not been loaded in
 20 the initial stage, we will submit TWD-381 (open-cut
 21 excavation to -0.5mPD ...) to include assessment to the
 22 D-wall checking up to -0.5mPD."
 23 In essence, what is said here is that -- so the
 24 excavation will be divided into two phases. The first
 25 phase will be down to negative 0.5mPD, and you guys

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1 agreed not to submit the TWD-04B report for this
 2 purpose?
 3 A. Yes.
 4 Q. Instead you used another report, ie the TWD-381, to seek
 5 the BD's agreement to grant consent or agreement to
 6 excavate down to 0.5mPD?
 7 A. Yes.
 8 Q. The purpose, again, for this strategy, submission
 9 strategy, is again to avoid any potential query raised
 10 by BD in regard to the agreement of excavation; correct?
 11 A. Yes. I prefer to say to smooth the process.
 12 Q. Then if we go to down, scroll down a little bit, we see
 13 on 27 May, about four days later, Betty sent an email to
 14 Edward and said:
 15 "Rob" -- ie Rob McCrae from Atkins.
 16 A. Yes.
 17 Q. "... told me you are going to speak (confirm) with Kevin
 18 [Yip from MTRC] for submission approach as below, did
 19 you speak to him?"
 20 So Betty is chasing Edward on the submission
 21 approach. And then we see -- can we carry on to scroll
 22 to the upper part of the page -- then we need to turn
 23 over to page 1667. Then we get the reply from
 24 Edward Tse to Betty, and Edward Tse says:
 25 "Betty,

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1 I have spoken to him and the approach is the same as
 2 you said."
 3 So basically the agreement of this submission
 4 approach.
 5 "But I will confirm with him if I put the remedial
 6 proposal in the DDC submission, I need a formal
 7 instruction from MTR."
 8 A. Yes.
 9 Q. So, at that point of time, it seems that everybody
 10 agreed within MTRC, Leighton and Atkins that we will use
 11 a different TWD report to obtain agreement to excavate
 12 down to 0.5mPD?
 13 A. Yes.
 14 Q. And:
 15 "Regarding the contractor slab submission ..."
 16 Is the remedial proposal, is that correct, in the
 17 next paragraph?
 18 A. Well, contractor slab submission is required anyway,
 19 regardless of remedial proposal.
 20 Q. Okay. The remedial proposal is part of the contractor's
 21 slab submission; is that a more correct way to put it?
 22 A. Yes.
 23 Q. "... I will take out section 1.3.6 about additional
 24 bottom rebar and also the whole RC drawings for both
 25 part I and part II. Report will be updated by today."

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1 We have seen the TWD report. The paragraph is
 2 1.3.5. Is this, as you understand, only a typo or it
 3 refers to something else, this 1.3.6?
 4 A. I thought 1.3.6 is the paragraph showing the diagram of
 5 the continuous piles.
 6 Q. No. I can show you that it's 1.3.5. If you look at
 7 J1/106. You see it's 1.3.5.
 8 A. Okay. Can you show me 1.3.6?
 9 Q. Can the witness be shown the next page.
 10 A. Yes, I agree, it must be a typo.
 11 Q. Thank you.
 12 As I understand it, after this email correspondence,
 13 Leighton did obtain the consent to excavate down to
 14 negative 0.5mPD, relying on TWD-381, before --
 15 COMMISSIONER HANSFORD: Sorry, can we be sure that it was
 16 1.3.5 that was omitted and not 1.3.6?
 17 MR CHEUK: Professor, you mean in the TWD report or --
 18 COMMISSIONER HANSFORD: Yes, because it says "I will take
 19 out section 1.3.6", which apparently is a typo, it
 20 should have been 1.3.5, and what really interests me is
 21 what was actually taken out? Perhaps we will come to
 22 that.
 23 MR CHEUK: We will see an updated version.
 24 COMMISSIONER HANSFORD: We will come to that.
 25 MR CHEUK: We will come to that and we can do a comparison.

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<p>1 COMMISSIONER HANSFORD: I just put that marker down for now</p> <p>2 MR CHEUK: Going back to my question, which was Leighton did</p> <p>3 obtain agreement to excavate down to 0.5mPD, relying on</p> <p>4 different report, before July 2015; is that correct?</p> <p>5 A. I can't remember the exact date.</p> <p>6 Q. But you did obtain the agreement to excavate, of course;</p> <p>7 right --</p> <p>8 A. Yes.</p> <p>9 Q. -- subsequently? If we go to J5/3363, this, you can</p> <p>10 see -- you can see the reference to TWD-381 there;</p> <p>11 correct?</p> <p>12 A. Yes.</p> <p>13 Q. Then if we can go to the next page, this is the 381</p> <p>14 report that was used to obtain agreement to excavate</p> <p>15 down to negative 0.5mPD?</p> <p>16 A. Yes.</p> <p>17 Q. Do I also understand it correctly that there is no</p> <p>18 reference to the remedial proposal in this report?</p> <p>19 A. Yes, I believe there wouldn't be, because it's really</p> <p>20 a temporary works only report.</p> <p>21 Q. Now we come to professor's question actually, the final</p> <p>22 version form of the TWD.</p> <p>23 If we can go to B10/7256, we see this MTR's letter</p> <p>24 dated 29 July 2015, and it's submission to the BD, the</p> <p>25 design report and other documents, and it's signed by</p>	<p>1 gridlines 22 to 40 because of the missing U-bar in</p> <p>2 diaphragm wall can refer to report no. PWD-059A1</p> <p>3 submitted by the contract."</p> <p>4 "PWD" means permanent design report?</p> <p>5 A. Yes, permanent works design.</p> <p>6 Q. Essentially, this report says that if you want to know</p> <p>7 the remedial proposal, go to the permanent design</p> <p>8 report?</p> <p>9 A. Yes.</p> <p>10 Q. Can you tell us -- let me rephrase.</p> <p>11 This report, if we go back to the first page, ie</p> <p>12 7262 -- my apologies, I would like to go to 7256 -- if</p> <p>13 you look at the covering letter for this report,</p> <p>14 basically it says:</p> <p>15 "Design report for HUH station excavation and</p> <p>16 lateral support for area C1 and C2 -- excavation below</p> <p>17 negative 0.5mPD".</p> <p>18 So the purpose of this report was to obtain</p> <p>19 agreement from the BD for further excavation; correct?</p> <p>20 A. Yes.</p> <p>21 Q. And while I can understand that you use the open-cut</p> <p>22 report to obtain agreement from the BD for excavation</p> <p>23 down to negative 0.5, and for that purpose, as you</p> <p>24 explained, any remedial proposal at the top of the</p> <p>25 diaphragm wall is not really relevant because that part</p>
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<p>1 Mr Andy Leung, the design manager of MTRC; okay?</p> <p>2 A. Yes.</p> <p>3 Q. If we go over the page, and maybe another page -- maybe</p> <p>4 one more page, until we get to the first page of the</p> <p>5 report.</p> <p>6 COMMISSIONER HANSFORD: We're there.</p> <p>7 MR CHEUK: We've got it. 7262. We see this is the final</p> <p>8 version of the TWD report submitted to the BD; okay?</p> <p>9 We can see that it's named TWD-004B3, which is one</p> <p>10 version after B2.</p> <p>11 A. Yes.</p> <p>12 Q. If we go to B7264, we again see the history of the</p> <p>13 development of this report. The fourth issue, B2</p> <p>14 version, is the one we have seen, and now we come to the</p> <p>15 final, fifth issue, B3; correct?</p> <p>16 A. Yes.</p> <p>17 Q. If we now go to look at B10/7277, now we see the version</p> <p>18 of 1.3.5 here. What I can suggest to you is we see the</p> <p>19 details have been substantially cut down and the</p> <p>20 figure 1.4 was removed; correct?</p> <p>21 A. Yes.</p> <p>22 Q. We see the paragraph says here:</p> <p>23 "The justification of reinforced concrete design for</p> <p>24 the as-built reinforcement detail at the interface</p> <p>25 between the diaphragm wall and the EWL slab between</p>	<p>1 of the diaphragm wall was not loaded?</p> <p>2 A. For the first excavation, yes.</p> <p>3 Q. But when you or MTRC made the application here for</p> <p>4 further excavation, the remedial proposal or changes at</p> <p>5 the top of the diaphragm wall will be relevant; is that</p> <p>6 correct?</p> <p>7 A. Yes.</p> <p>8 Q. What I don't understand is that if it's relevant, why</p> <p>9 don't you keep the original details and figure 1.4 here</p> <p>10 and would like to remove it to the notice of BD?</p> <p>11 A. All I can think is that it was -- at the time of B2, it</p> <p>12 was taken out because we thought we were going to submit</p> <p>13 4B2, and then it was replaced by TWD-381, and then by</p> <p>14 the time we came to do B3 it just seems like it wasn't</p> <p>15 put back in, maybe just an accidental omission.</p> <p>16 Q. I see. You say it's only an accidental omission?</p> <p>17 A. I can't remember the exact details of it from the time,</p> <p>18 but this is -- I mean, it's still in the text, in the</p> <p>19 4B3 test, that we were going to break down the top of</p> <p>20 D-wall and put continuous bars in, but it's just that</p> <p>21 diagram was not put back, for one reason or another, I'm</p> <p>22 not sure.</p> <p>23 Q. I just wonder, is it -- the phrase "submission strategy"</p> <p>24 was used in those email chain of correspondence. Was</p> <p>25 this omission or amendment of paragraph 1.3.5 part of</p>

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1 the submission strategy adopted at the time to make the
 2 remedial work proposal less conspicuous to the BD, so as
 3 to obtain excavation consent more easily?
 4 A. I have already explained to you that we decided to go
 5 with the temporary works only submission, in order to
 6 carry out the first phase of excavation, which didn't
 7 affect the D-wall. You know, it's a submission
 8 strategy. It's a common thing to do in these kinds of
 9 projects. You have to time your submissions well so
 10 that you can smooth the process and, you know, not
 11 hinder the work.
 12 Q. You recall that MTRC, Leighton and Atkins faced
 13 another -- second issue, what I call, at the time, ie to
 14 obtain BD's approval of certificate of completion and
 15 record plan for the diaphragm walls; right?
 16 A. (Nodded head).
 17 Q. You also recall that as part of the submission strategy
 18 you just mentioned, the remedial proposal was supposedly
 19 to set out in a permanent works submission that we have
 20 seen the reference to.
 21 Now if we go to, same bundle, 7322. We see this is
 22 a letter from MTRC to the BD, which actually contains
 23 the PWD report.
 24 If we can scroll down a little bit, the purpose of
 25 this submission is to provide justification to the BD in

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1 order to obtain the certificate of completion for the
 2 D-wall; is that correct?
 3 A. It doesn't say that, no.
 4 COMMISSIONER HANSFORD: I suppose that then leads to the
 5 question that if it doesn't say that, what is the
 6 purpose of this submission?
 7 A. I think the main purpose of this is to provide an update
 8 on the primary structure submission and include the
 9 assessment report for the changes in the D-wall
 10 reinforcement.
 11 COMMISSIONER HANSFORD: Right.
 12 A. Which, although it doesn't say it's for the purpose of
 13 gaining approval of the BA14, it was necessary for that.
 14 But, as you can see, this is a seventh amendment of
 15 the primary structures, and there were several more
 16 after this, so, you know, it's a routine thing to submit
 17 these amendments every so often.
 18 COMMISSIONER HANSFORD: I see.
 19 A. And in this particular one, they included the assessment
 20 report for the remedial works.
 21 MR CHEUK: Yes. If you go to 7326, we again see the history
 22 of this report. It's first prepared in around June
 23 2015 --
 24 A. Sorry, which report is this again?
 25 Q. This is the PWD report.

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1 A. Okay.
 2 Q. If we look at the document number at the top, we see
 3 "PWD-059A3".
 4 A. Yes.
 5 Q. If we go down, we see the history of this report. A1
 6 was prepared in around June, and A2 and A3 were around
 7 on around 9 July?
 8 A. Yes.
 9 Q. If we go to 7328, we see that there is an overview of
 10 the eastern D-wall between gridlines 15 to 50, we can
 11 see from the second paragraph:
 12 "The reinforcement at the diaphragm wall to EWL
 13 slab, between gridlines 15 to 49/50 on the east side and
 14 the northern return has not been constructed in
 15 accordance with the design drawings."
 16 Is what we call the first change.
 17 A. Yes.
 18 Q. Then we see, on 7330, at the top first, if I may, it
 19 says:
 20 "The as-built reinforcement differs from the design
 21 drawing in that the tension reinforcement from the EWL
 22 slab has (i) insufficient anchorage ... and (ii) is not
 23 lapped with the diaphragm wall steel. Refer figure 2",
 24 et cetera.
 25 Then at the bottom, if we can go to the bottom part

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1 of this page:
 2 "Firstly, the issue of the anchorage. This can be
 3 resolved by extending the steel into the OTE slab
 4 opposite to obtain sufficient anchorage. This will
 5 require resequencing the works to ensure that the OTE
 6 slab is cast prior to excavating top down beneath the
 7 EWL.
 8 The second issue ..."
 9 I don't need to go into the detail. You of course
 10 read the report at the time?
 11 A. Yes.
 12 Q. I think you can confirm to us that the purpose of this
 13 report is really to explain to the BD it's okay even
 14 after the first change?
 15 A. Yes.
 16 Q. Subject to some work to be done?
 17 A. That's right, yes.
 18 Q. The modification work to be done is at 7333. He says:
 19 "To provide the full tension anchorage for the slab
 20 rebar, the rebar are extended into the OTE slab/wall
 21 with full tension anchorage lap length, end of the bar
 22 with a standard bend-up hook as recommended in the
 23 Concrete Code -- 2013. To comply with this principle,
 24 the OTE slab/wall must be concrete
 25 monolithically/concurrently (ie at the same time) with

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1 the 3 metre EWL slab and provide adequate lap length
2 details to future OTE wall construction, detail refer to
3 appendix F of this report."
4 That is a summary of the remedial proposal,
5 consistent or similar with what was set out in the
6 temporary design report; correct?
7 A. Correct.
8 Q. If you go to appendix F, which is at 7355.
9 Then if we go down to the drawing, 7357. If you
10 blow up the drawing a little bit, we see essentially the
11 remedial proposal drawing is here. There are several
12 points I wish to point out to you. First of all, I have
13 tried to find any reference to trimming down of concrete
14 in the whole report, and it doesn't say so. Do you have
15 any response to why it doesn't refer to any trimming of
16 concrete?
17 A. Well, yes. I can say first of all you were talking
18 about the first change, first of all.
19 Q. Yes.
20 A. You haven't introduced talking about the second change
21 yet.
22 Q. No. We are probably at cross-purposes.
23 Because, as a result of the first change, you need
24 to provide a remedial proposal, and according to your
25 understanding of the remedial proposal, as we have seen

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1 in the temporary design report, that does involve
2 trimming down of concrete; correct?
3 A. Can you just repeat that again?
4 Q. According to the temporary design report that we have
5 seen, the remedial proposal for the first change that
6 Leighton had in mind at the time did involve trimming
7 down of concrete?
8 A. Yes. It's one way of executing the remedial proposal.
9 Q. Yes.
10 A. The fact is that the main point of the remedial proposal
11 is how to deal with the lack of anchorage of the EWL
12 slab and the OTE slab, and how to -- and the calculation
13 of the anchorage for the D-wall vertical bars. And this
14 report deals with that, and you can see there's a clue
15 in the report where it says the EWL slab and OTE slab
16 must either be cast monolithically or concurrently,
17 that's another clue, that Atkins didn't have just this
18 one way of dealing with the situation in their mind.
19 The other clue is the fact that they put the breaking
20 down of the D-wall into 4B2 report.
21 Q. Yes.
22 A. So isn't that an indication that the method of executing
23 this remedial detail is not the important aspect? The
24 important aspect is that the remedial detail is
25 executed.

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1 Q. Yes, but going to -- if we can recall, the remedial
2 proposal, if we can recall, originally in the TWD report
3 sets out quite expressly, before the submission
4 strategy, the trimming down of concrete, first in the
5 diagram, figure 1.4, and second in the section 6.2 that
6 we have gone through.
7 But this point, first of all, was nowhere mentioned
8 in the PWD report, when you use the whole report to tell
9 the BD that the first change was okay subject to this
10 remedial proposal, I was wondering why all parties,
11 including MTRC, Leighton and Atkins considered, for
12 example, there is no need to refer to trimming of
13 concrete and, for example, the inclusion of figure 1.4
14 in this report, where you specifically and
15 comprehensively deal with this issue?
16 A. Well, I think the reason for not including the remedial
17 detail in the temporary works report was because the
18 discussions were still ongoing with BD, and you can see
19 that this PWD-59A3 report had not been finalised at the
20 time when we submitted our 381 report.
21 So the reason for not including it is because the
22 remedial detail hadn't been finalised yet. It's not
23 because we didn't want to include breaking down of the
24 D-wall.
25 Q. But at the time of this report, as you said, you give

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1 some clues of trimming down concrete, when you say
2 "monolithically". So why don't you just say it more
3 expressly so that everybody can understand what you need
4 to do?
5 A. I'm not saying that was what we put into the report or
6 what Leighton put into the report. I'm just saying that
7 in Atkins' mind there was clearly different ways of
8 doing the remedial, and the fact they didn't show that
9 particular method of doing it, you know, I'm not sure
10 why they didn't show that.
11 COMMISSIONER HANSFORD: Mr Buckland, are you saying that in
12 order to construct it monolithically, you obviously had
13 to break it down?
14 A. Yes.
15 COMMISSIONER HANSFORD: So what you are showing here is the
16 permanent detail, not the way in which you got to the
17 permanent detail?
18 A. Sorry, say again?
19 COMMISSIONER HANSFORD: So what you are showing here is the
20 permanent detail, not the means to which you achieved
21 the permanent detail?
22 A. Yes, correct.
23 COMMISSIONER HANSFORD: And the breaking down is part of the
24 means of achieving it?
25 A. Yes, or one possible means of achieving it.

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<p>1 COMMISSIONER HANSFORD: But the important thing here is that 2 it's monolithic? 3 A. Yes, but they mentioned that it's either got to be cast 4 monolithically or -- what's the other one? -- 5 concurrently. So if the D-wall is left intact, then it 6 would be concurrent pours of both sides of the D-wall. 7 COMMISSIONER HANSFORD: Yes. 8 A. If the D-wall is broken down, it would be monolithically 9 poured, because it would be all the way through, 10 continuous. 11 COMMISSIONER HANSFORD: Yes, I understand. Thank you. 12 MR CHEUK: But as I understand, you say trimming down of the 13 concrete was just one of the ways. Are you at this 14 moment at this point in time making the submission that 15 Leighton or MTRC was contemplating not breaking the 16 concrete as another way of doing the remedial proposal? 17 A. Yes. There were some instances where the D-wall was not 18 broken down. 19 Q. If that's the case, when we discuss the meaning of 20 monolithic, we say cast in one piece, wouldn't that be 21 contrary to the concept of monolithic if you say we 22 don't need to break down the D-wall, the top part? 23 A. No, what I'm saying is I've mentioned both monolithic 24 and concurrent. 25 COMMISSIONER HANSFORD: Which are not the same thing.</p>	<p>1 (3.46 pm) 2 (A short adjournment) 3 (4.01 pm) 4 MR CHEUK: Thank you, Chairman and Professor. 5 If we may go back to B10/7322. If we blow it up 6 a little bit on the first paragraph, it says: 7 "A copy of design report for HUH station primary 8 structure and excavation and lateral ... 7(th amendment 9 submission) ..." 10 As I understand, the PWD report that we have just 11 discussed is only a part of the 7th amendment 12 submission; is that correct? 13 A. I think it's separate from the 7th amendment. 14 Q. Actually, the 7th amendment submission is somewhere 15 else, which we can find at C17/12101. This is indeed 16 the 7th amendment submission; correct? 17 A. It looks like it, yes. 18 Q. Because it does say "7th amendment submission". 19 COMMISSIONER HANSFORD: That's a clue. 20 MR CHEUK: If we go to 12111, there we find the executive 21 summary; right? Then we find: 22 "The primary changes are as follows: 23 1. Incorporates the justification of reinforced 24 concrete design for the as-built reinforcement detail at 25 the interface between the diaphragm wall and the EWL</p>
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<p>1 A. Yes. 2 MR CHEUK: I see. 3 COMMISSIONER HANSFORD: Perhaps this room needs a little bit 4 of explanation about, on the one hand, monolithic, and 5 on the other hand concurrent. I think I've got it but 6 I suspect some of the people in this room haven't. So 7 it might be helpful, Mr Buckland, if you could just give 8 us a couple of minutes on the difference between 9 monolithic and concurrent. 10 CHAIRMAN: It would help me, yes. 11 A. So for concurrent, if we have a D-wall left intact, we 12 have a section to cast on the east side and the slab to 13 cast on the west side, and both these need to be cast at 14 the same time, but they are not joined together because 15 they are separated by the D-wall, but they are cast at 16 the same time. So, in the monolithic example, the 17 D-wall is broken down a little bit, and then the section 18 on the east side, section on the west side and the top 19 of the D-wall are all cast in one go, so it makes 20 a continuous monolithic pour. 21 COMMISSIONER HANSFORD: That's helpful. 22 CHAIRMAN: Good. 23 Do you want to have 15 minutes now? 24 MR CHEUK: Yes. Thank you. 25 CHAIRMAN: Good. Thank you very much.</p>	<p>1 slab between gridlines 22 to 40 because of the missing 2 U-bar in diaphragm wall. For detail information can 3 refer to report no. PWD-059A1 submitted by the 4 contractor." 5 I think that's a typo; it should be A3. 6 A. Yes, I think so. 7 Q. So, as I understand it, both this 7th amendment 8 submission and the PWD report was given to BD at the 9 same time, on around 29 or 30 July 2015? 10 A. (Nodded head). 11 Q. And the primary purpose of this 7th amendment submission 12 was to provide justification to the BD for the first 13 change? 14 A. Okay. 15 COMMISSIONER HANSFORD: Presumably, there were other numbers 16 under this, "The primary changes are as follows" -- 17 you've shown us number 1. 18 MR CHEUK: There's no number 2, as far as I can find. 19 COMMISSIONER HANSFORD: Ah. Very good. That's understood. 20 Thank you. 21 MR CHEUK: And the reason -- if we go back to the history 22 that we have gone through this morning, the reason you 23 need to provide justification for this first change was 24 because, in the process, you asked for certificate of 25 completion for D-wall; right?</p>

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<p>1 You need to speak up.</p> <p>2 A. Well, I'm not saying anything; I can't speak up if I'm</p> <p>3 not talking.</p> <p>4 Q. I apologise. I thought you were making some gesture.</p> <p>5 A. I'm not sure what your question actually is, because you</p> <p>6 are suggesting that the only reason that we would submit</p> <p>7 changes to BD is only to get a certificate, and I don't</p> <p>8 think that's the case.</p> <p>9 Q. I mean -- not the only reason but one of the reasons,</p> <p>10 you know, in the context of asking a certificate of</p> <p>11 completion from the BD, and then BD raised a query with</p> <p>12 you, "What happened to the first change?", and asked you</p> <p>13 for justification, and here comes the justification</p> <p>14 saying, "This is the justification", so I'm suggesting</p> <p>15 to you that one of the purposes for providing this</p> <p>16 justification is to get the certificate of completion.</p> <p>17 A. Okay. That's fair enough.</p> <p>18 Q. But --</p> <p>19 COMMISSIONER HANSFORD: Sorry, was that an agreement?</p> <p>20 MR CHEUK: I think I said "but".</p> <p>21 A. My opinion is that PWD-59A3 is the main report for</p> <p>22 satisfying BD, and then submission of the primary</p> <p>23 structures report is just the routine submission to get</p> <p>24 those changes in to BD.</p> <p>25 If I understand -- if you can explain the purpose of</p>	<p>1 A. Sorry, can I interrupt?</p> <p>2 Q. Yes.</p> <p>3 A. The remedial detail was to demonstrate to BD that the</p> <p>4 way the D-walls are being built was going to be</p> <p>5 acceptable.</p> <p>6 Q. And completed? Do I understand correctly that when you</p> <p>7 get a certificate of completion, you are not just</p> <p>8 telling the BD that it's safe; you are telling the BD</p> <p>9 that it's completed?</p> <p>10 A. Yes. Well, the D-walls were completed.</p> <p>11 Q. But if you are going to carry out some more remedial</p> <p>12 works at the D-wall, how can you say the D-wall was</p> <p>13 completed?</p> <p>14 A. Remedial works is not part of the completed D-wall. The</p> <p>15 D-wall is constructed -- the D-wall was constructed and</p> <p>16 the completion certificate is to accept that the D-walls</p> <p>17 were constructed in accordance with the details that BD</p> <p>18 have been given, and there was a long process where we</p> <p>19 had to amend -- we had to submit design amendments to</p> <p>20 make sure that the as-built details of the D-wall</p> <p>21 matched with the design amendment.</p> <p>22 Q. My difficulty is really this, Mr Buckland. If</p> <p>23 I understand correctly, a certificate of completion</p> <p>24 means the work has been completed and no more remedial</p> <p>25 work is necessary. At the same time, this concept of</p>
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<p>1 your question, then I may be able to answer it better.</p> <p>2 Q. Maybe I'll rephrase, it is easier.</p> <p>3 I'm suggesting to you that one of the reasons of the</p> <p>4 7th amendment submission and PWD report was for the</p> <p>5 purpose of obtaining certificate of completion from the</p> <p>6 BD.</p> <p>7 A. One of the reasons, yes, I agree.</p> <p>8 Q. One of the reasons. But -- I come to the "but" part --</p> <p>9 it seems to me the approach is problematic because,</p> <p>10 coming back to the original question I posed to you</p> <p>11 a while ago, on the one hand you ask BD for</p> <p>12 a certificate of completion, and on the other hand you</p> <p>13 are implicitly telling the BD, "I'm going to change it".</p> <p>14 Isn't that a bit contradictory to me?</p> <p>15 A. What do you mean?</p> <p>16 Q. Well, if BD give you the certificate of completion, how</p> <p>17 can you say -- how can they say it's actually completed</p> <p>18 when they knew you were going to change it, as set out</p> <p>19 in the PWD report?</p> <p>20 A. But the PWD report is explaining the remedial details</p> <p>21 for the change in rebar and the D-wall.</p> <p>22 Q. Yes.</p> <p>23 A. And the certificate is to confirm that the walls were</p> <p>24 built in accordance with the latest design drawings.</p> <p>25 Q. Let's say --</p>	<p>1 applying for a certificate of completion at the same</p> <p>2 time with telling the BD that some more remedial works</p> <p>3 would have been necessary is problematic and</p> <p>4 contradictory to me.</p> <p>5 A. But hold on a second. You've already said that you</p> <p>6 consider the PWD-59A3 report is not suggesting to BD</p> <p>7 that there's further remedial works.</p> <p>8 We build or Intrafor build a D-wall, and however</p> <p>9 they have built it, that is the completed works. If</p> <p>10 it's modified later, then it doesn't affect how the</p> <p>11 D-wall was actually constructed.</p> <p>12 Q. In the first place, not at the time of you apply</p> <p>13 for certificate of completion; right?</p> <p>14 A. Well, we applied for certificate of completion earlier</p> <p>15 on in 2015. Those D-wall panels were completed, and</p> <p>16 whatever was in the wall at that time, that is the</p> <p>17 as-built condition at the time of completion.</p> <p>18 Q. Do I understand you correctly, you are saying that you</p> <p>19 can apply for a certificate of completion based on the</p> <p>20 as-built condition at the time of 2015, you know, and at</p> <p>21 the same time you can carry out remedial works</p> <p>22 afterwards? Do I understand that's your understanding</p> <p>23 of the procedure?</p> <p>24 A. Well, Intrafor was responsible for constructing the</p> <p>25 D-wall panels; right?</p>

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<p>1 Q. (Nodded head).</p> <p>2 A. They completed their works. Their authorised signatory,</p> <p>3 AS, signed off the drawings, the as-built details, some</p> <p>4 of which turned out to be not quite correct and had to</p> <p>5 be fixed over a period of several months. But the</p> <p>6 simple fact is we are submitting what was actually built</p> <p>7 in the D-wall.</p> <p>8 At that time, we didn't know exactly which panels</p> <p>9 were going to be broken down and replaced with a better</p> <p>10 detail, but the way the D-wall was constructed and the</p> <p>11 way -- and the BA14 drawings, the details shown on BA14</p> <p>12 drawings were demonstrated to be acceptable for the</p> <p>13 remedial detail.</p> <p>14 Q. Yes, but as a matter of logic I would suppose the proper</p> <p>15 way to do it is to stop applying for a certificate of</p> <p>16 completion, because you know there would be further</p> <p>17 remedial work carried out?</p> <p>18 A. Why would we stop applying for a certificate when we're</p> <p>19 on an important project that needs to be completed to</p> <p>20 a programme? We are not going to stop applying for</p> <p>21 a certificate.</p> <p>22 Q. Fair enough. Let's move on.</p> <p>23 Now, I've talked to you about the submission to BD</p> <p>24 process. I wonder if you can also assist me on what</p> <p>25 happened on the site as to these two changes.</p>	<p>1 Then we can skip the brackets and go down:</p> <p>2 "Referring to sketch no. SK-0033-001", what it says</p> <p>3 is that:</p> <p>4 "The L-shape bar cannot be fixed onto the couplers</p> <p>5 in the D-wall (highlighted in yellow)."</p> <p>6 But now can we stop here and go to the sketch</p> <p>7 itself, which can be found at 2992. Maybe 9291 first.</p> <p>8 First of all, we can see the sketch reference number</p> <p>9 SK-0033-001 was exactly the sketch referred to in the</p> <p>10 TQ; correct?</p> <p>11 A. Yes.</p> <p>12 Q. If we go down to the next page, 2992, we know actually</p> <p>13 the previous sketch comes from this sketch; correct?</p> <p>14 A. Correct.</p> <p>15 Q. And this sketch is appendix F of the PWD report that we</p> <p>16 have discussed?</p> <p>17 A. Okay.</p> <p>18 Q. You agree?</p> <p>19 A. Yes.</p> <p>20 Q. And this sketch sets out the remedial proposal suggested</p> <p>21 by Leighton and Atkins at the time; correct?</p> <p>22 A. Yes.</p> <p>23 Q. If we go back to 2991, exactly the three queries are set</p> <p>24 out in this sketch, then I think they are replicated</p> <p>25 onto the query, TQ33.</p>
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<p>1 I don't need to trouble you with the first change</p> <p>2 which has happened and recorded by Intrafor. What</p> <p>3 I need your assistance is on the second change.</p> <p>4 So if we may first go to B5/2986. We can see that</p> <p>5 this is TQ33. We can see it's originated by -- we can</p> <p>6 go to the middle part, there's a table there. Can we go</p> <p>7 down a little bit more? Yes. It says, "Originated by",</p> <p>8 Johnson Luk, URS, dated 27 July 2015.</p> <p>9 Can you help us on the company or firm URS, who are</p> <p>10 they?</p> <p>11 A. That's Benaim.</p> <p>12 Q. What is their role, are they assisting Leighton or --</p> <p>13 A. He was seconded to my team from Benaim to help --</p> <p>14 Q. And their role is?</p> <p>15 A. Design management.</p> <p>16 Q. But they are under your supervision?</p> <p>17 A. Yes.</p> <p>18 Q. And it says reviewed by you.</p> <p>19 A. Yes.</p> <p>20 Q. On the same date.</p> <p>21 If we go to the "Query" part, the query was:</p> <p>22 "Referring to the sketch LCA-SK-000108", then the</p> <p>23 PWD report which we have seen, "it is discovered that</p> <p>24 there are locations where OTE slab length is smaller</p> <p>25 than 1,200 millimetres ..."</p>	<p>1 We can see the first query:</p> <p>2 "The L-shape bar cannot fix perfectly with the</p> <p>3 couplers fixed in D-wall (highlighted in yellow and</p> <p>4 green)."</p> <p>5 We can see some highlighting, for example, on the</p> <p>6 left-hand side, on the two horizontal rebars in the OTE</p> <p>7 slab. That's one of the references in paragraph 1</p> <p>8 below; right?</p> <p>9 A. Mm-hmm.</p> <p>10 Q. That's why I go back to -- you remember when I go</p> <p>11 back -- to suggest to you -- when we were discussing the</p> <p>12 TWD report, when I suggested to you there was no</p> <p>13 through-bar proposal at that point of time, because you</p> <p>14 see here it was still referring to fixing the couplers,</p> <p>15 rebar onto the couplers at this point of time, even in</p> <p>16 July 2015. That's my understanding, inferring from</p> <p>17 documents. Do you have any comment?</p> <p>18 A. Yes. I think your understanding is flawed because it</p> <p>19 clearly shows in that earlier report that there is</p> <p>20 a proposal for through-bars. So basically you are</p> <p>21 denying that fact.</p> <p>22 Q. I'm not sure -- which earlier report showing</p> <p>23 through-bars?</p> <p>24 A. 4B2.</p> <p>25 Q. That is the three red lines?</p>

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1 A. Mm-hmm.
2 Q. I understand your position. You consider that shows
3 through-bars, which I do not necessarily disagree
4 because I don't have contemporaneous knowledge as you
5 do. I'm just inferring from documents.
6 But what I can infer from this document is that you
7 were still contemplating using couplers to fix the
8 L-shaped bar at the OTE slab --
9 A. Yes, correct.
10 Q. -- to the D-wall. That's why I am suggesting to you if
11 at that point in time, you know, back in May, you were
12 thinking about using through-bars, why would it still
13 have this coupler problem in July?
14 A. Because this is what was put into the 59A3 report.
15 Q. I'm not sure about your answer. Can I start again. I'm
16 just suggesting that it seems that from your
17 understanding at that point of time, ie around 27 July
18 2015, couplers would still be used as a connection
19 method instead of through-bars, between D-wall and OTE
20 slab, and that's why there was query number 1:
21 "The L-shape bar cannot fix perfectly with the
22 couplers ... in D-wall ..."
23 I can tell you this is not a trick question. I'm
24 merely trying to find out the chronology, and the change
25 of through-bar will come very soon but just not -- from

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1 my inference of documents, not in May and not before the
2 27th, of this query.
3 Do you have any comment here? Did I get something
4 terribly wrong here?
5 A. Well, there was an idea to break down the D-wall and put
6 through-bars in, but that was obviously retracted due to
7 the situation at the time and, you know, two months have
8 gone past. You know, maybe -- this was not
9 a significant issue at the time, so maybe the people
10 involved just didn't think to put it back into the
11 report.
12 Q. I see. But you were the reviewer of the TQ, and you set
13 out that others might have forgotten it. I am asking
14 you your personal knowledge because you have personal
15 involvement in this TQ.
16 According to your knowledge whether by 27 July
17 through-bar proposal was adopted, and I emphasise that
18 again it's not a trick question because according to
19 MTRC it is a few days after 27 July, then they agreed to
20 use through-bar. So I was just wondering, to sort out
21 the chronology, whether you would tend to agree with me
22 that at least by TQ33, you know, probably the proposal
23 was still adopting couplers?
24 A. Yes.
25 Q. And of course, because we see that it actually refers to

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1 the sketch coming from appendix F of TWD, Leighton and
2 Atkins, MTRC, all parties, were prepared to implement
3 the remedial proposal at least by 27 July, this time;
4 correct?
5 A. Yes, it seems like that date.
6 Q. Now, I promise this is not a trick question. That's why
7 I take you to Kit Chan's witness statement.
8 CHAIRMAN: It's not at all common, and it's not allowed, to
9 have a trick question. I see exactly what counsel is
10 saying, he's just trying to say it's not something he's
11 trying to trip you up on.
12 A. I understand.
13 MR CHEUK: If we go to B1/279, this is the witness statement
14 of Mr Kit Chan, the construction manager of MTRC. Okay?
15 You can take it from me this is Kit Chan's witness
16 statement.
17 If you look at paragraph 49, what he says is as
18 follows:
19 "Based on the discussions referred to above, the
20 construction management teams of both MTRC and Leighton
21 eventually decided in or around August 2015 to revert
22 back to the original construction detail of having two
23 layers of reinforcement bars with uniform spacing at the
24 top of the east diaphragm wall for the rest of the
25 panels in areas B and C ..."

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1 The reason why he said "revert back to the original
2 detail" was by reference to the BD accepted drawings
3 that we discussed at the very beginning; correct?
4 You do need to speak up this time.
5 A. Yes, but I don't think that's strictly true because the
6 drawings you showed at the beginning was the original
7 detail and we couldn't possibly go back to the original
8 detail.
9 Q. Your comment probably is similar details; would that be
10 more accurate?
11 A. Similar inasmuch as the top rebar is concerned, but
12 there's still through-bars in the top of the wall, not
13 L-bars.
14 Q. Yes. We will go to the through-bars very soon.
15 Then we see, if we go down:
16 "... which was possible because the concrete had
17 been cast for the east diaphragm wall by then and the
18 tremie pipes had since been abandoned, although Atkins
19 did not formalise any revisions to the working drawings
20 at the time as far as I am aware. The work sequence
21 which ensued on site was generally as follows".
22 We see the three steps. The first is trimming down,
23 450; the second is use one through-bar to replace three
24 fragments of reinforcement rebars; and then finally the
25 monolithic concreting. That's actually in line with

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<p>1 your understanding of second change.</p> <p>2 A. Yes.</p> <p>3 Q. The only investigation I was going through with you is</p> <p>4 really the timing. According to him, this happened in</p> <p>5 around August 2015, which is slightly behind the TQ we</p> <p>6 have seen, and the TQ refers to couplers. That's why</p> <p>7 I was trying to pin down the chronology was that</p> <p>8 probably soon after your TQ --</p> <p>9 A. Yes.</p> <p>10 Q. -- there was some form of agreement between MTRC and</p> <p>11 Leighton in relation to how to carry out the second</p> <p>12 change?</p> <p>13 A. Okay.</p> <p>14 Q. Would you agree to that or say this is wrong or any</p> <p>15 comment?</p> <p>16 A. It sounds right to me.</p> <p>17 Q. If we go back to C27/20829 -- this is TQ34, which was</p> <p>18 issued by you and Johnson Luk on almost exactly the same</p> <p>19 day as TQ33.</p> <p>20 A. Yes.</p> <p>21 Q. If we look at the content of this TQ, the next page,</p> <p>22 20830 -- as I understand it, the problem is very simple.</p> <p>23 The original intention, according to -- according to the</p> <p>24 intention after the first change, was to have the three</p> <p>25 rows of rebars connected by couplers to diaphragm wall,</p>	<p>1 that difficulty raised in respect of TQ34 was very</p> <p>2 specific in relation to the panel EH74; correct?</p> <p>3 A. That's correct.</p> <p>4 Q. And Kit Chan explained here:</p> <p>5 "As the difficulties arising from EH74 also existed</p> <p>6 in other panels [ie the mismatch of levels], after some</p> <p>7 verbal discussions between my construction team and the</p> <p>8 representatives of Leighton (who should have been</p> <p>9 Mr Malcolm Plummer, Ian Rawsthorne and/or Mr Gary Chow</p> <p>10 but I cannot remember whom in particular I spoke to), it</p> <p>11 was agreed sometime between 28 July and 1 August 2015</p> <p>12 that the construction of the east diaphragm wall panels</p> <p>13 in area C1-2 should adopt the remedial proposal in</p> <p>14 response to TQ34 with the first row in the top layer</p> <p>15 being replaced with a through-bar. Between 1 August and</p> <p>16 13 August 2015, the rebar fixing works for area C1-2</p> <p>17 were carried out in accordance with the remedial</p> <p>18 proposal in response to TQ34."</p> <p>19 Again, I seek your comment: was that generally</p> <p>20 correct or you disagree with that?</p> <p>21 A. I wasn't involved in the discussion.</p> <p>22 Q. But let's assume he's correct because so far we have not</p> <p>23 seen any witness dispute otherwise. One point</p> <p>24 noteworthy here is that the change resulted in TQ33, ie</p> <p>25 implementing the remedial proposal, is actually</p>
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<p>1 as shown in the diagram above, which you have T1, T3 and</p> <p>2 T5; correct?</p> <p>3 A. Correct.</p> <p>4 Q. But what happened on site is that the levels of the</p> <p>5 rebars did not match the levels of the three rows of</p> <p>6 rebars within the diaphragm wall?</p> <p>7 A. Well, it's the other way around. The couplers in the</p> <p>8 diaphragm wall were lower than they needed to be.</p> <p>9 Q. Yes, okay. But in essence there's a mismatch of levels?</p> <p>10 A. Yes.</p> <p>11 Q. So, in order to resolve this mismatch, the solution</p> <p>12 proposed was to hack off -- as we see the three points</p> <p>13 below:</p> <p>14 "Hack off concrete at D-wall", ie the green part.</p> <p>15 And:</p> <p>16 "Extend T1 rebar on the far side of the D-wall", ie</p> <p>17 use through-bar on the first row.</p> <p>18 A. Yes.</p> <p>19 Q. And then:</p> <p>20 "Cast the hacked-off portion and EWL slab in one</p> <p>21 go."</p> <p>22 A. Yes.</p> <p>23 Q. Again, if I may then take you to Kit Chan's witness</p> <p>24 statement, back in bundle B1/277, paragraph 41 -- and</p> <p>25 one more question before I get to this paragraph is that</p>	<p>1 different from the change --</p> <p>2 A. Sorry, can you repeat that? The first change, you mean?</p> <p>3 Q. No. Let me repeat that. The change, the necessary</p> <p>4 change, that's recorded in TQ33 --</p> <p>5 A. Which change are you talking about?</p> <p>6 Q. Ie, I'm referring to the general implementation of</p> <p>7 remedial proposal arising from the first change, ie you</p> <p>8 need to hack down 450 millimetres, replacing all the</p> <p>9 couplers with the through-bars.</p> <p>10 A. That's not mentioned in TQ33.</p> <p>11 Q. That's not, but when I asked you -- you remember, at</p> <p>12 that point in time, parties, Leighton and MTRC,</p> <p>13 according to Kit Chan's witness statement I've just</p> <p>14 taken you to, around 1 August -- around early August</p> <p>15 2015 -- they agreed to adopt the second change.</p> <p>16 A. Yes.</p> <p>17 Q. And the second change has three steps, we have just</p> <p>18 seen.</p> <p>19 A. Mm-hmm.</p> <p>20 Q. What I am trying to distinguish with you is that those</p> <p>21 steps, three steps, were slightly different, actually,</p> <p>22 from the response in relation to EH74 as a result of</p> <p>23 TQ34, because TQ34 only involves T1, whereas others are</p> <p>24 in relation to all three rows of rebar.</p> <p>25 A. Yes.</p>

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<p>1 Q. You remember that when we started, we talked about 2 detail E in relation to BD's accepted drawing, which was 3 actually one of the many other variations of details 4 along the eastern panel walls? 5 A. Mm-hmm. 6 Q. So although we can generally talk about, you know, the 7 change or the second change on a general level, but on 8 the exact implementation level there would be 9 permutations, depending on the exact locations of the 10 panels? 11 A. I don't quite follow. 12 Q. Okay. What I'm coming to is that, for example, some 13 panels will have some space reserved, and that's why, at 14 the top of the diaphragm wall, there would not 15 necessarily be the top mat and the bottom mat. Is that 16 in accordance with your recollection? 17 A. You mean they wouldn't necessarily be two rows of bars? 18 There could be -- 19 Q. Two sections of rebars. 20 A. No, there'd always be two sections -- there would be 21 rebar at the top and the bottom of the slab, for sure. 22 Q. The reason I'm coming to this is that if we go to the 23 recent joint statement of MTRC and Leighton, B19/25486, 24 you can see some layout plans, and if you go to the 25 "Remark" box, you can see there are actually different</p>	<p>1 least, for example, four permutations of connection 2 details: type 1, type 2, type 3 and type 4; do you see 3 that? 4 A. Yes. 5 COMMISSIONER HANSFORD: Why do you say "at least"? 6 MR CHEUK: The problem we have of course is that these are 7 all interim and subject to verification. 8 COMMISSIONER HANSFORD: Ah. So you are saying, "We know of 9 four, there may be more"? 10 MR CHEUK: There may be more. The point I am driving at is 11 that although I use the shorthand "second change", 12 actually it's a plural. It involves many types of 13 variations. That's why we might have a problem of 14 identification of details. 15 A. Sorry, no. 16 Q. That's what I'm driving at. 17 A. I don't really agree. There are mainly two different 18 types of change. One is with replacing the top bar 19 only, the other one is replacing the top three bars. 20 The other changes are for different reasons. 21 If you can look at type 4, there's an opening above 22 that lower cut-off level of the D-wall. 23 Q. Yes. 24 A. So it's a different type of panel in the first place. 25 It's got a utility opening going through it. And the</p>
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<p>1 types of connection details. Although we use the word 2 collectively, call it "second change", but actually if 3 we look into those connection details in more detail, we 4 can find there are slightly variations from panel to 5 panel. That's really the point I'm driving at. 6 According to this construction drawing, you can see 7 that the green box is "Couplers connection at D-wall 8 top", and then the blue box is "Straight bar used at 1st 9 row of D-wall top". That's in response to TQ34 that we 10 have just discussed; correct? 11 A. Yes. 12 Q. And "Straight bar connection at D-wall top", which is 13 the blank box, is the more general case which was the 14 general level implementation of, you know, the remedial 15 proposal, hacking down, through-bars and monolithic 16 concreting; correct? 17 A. Yes. 18 Q. But what I'm saying is there are actually some other -- 19 apart from these two variations, there are other 20 variations as well which are not necessarily covered by 21 these two variations. 22 If you need assistance -- actually, if you turn to 23 the next page, 25487, and this is actually, as 24 I understand, a drawing prepared by Leighton, so you can 25 see, according to Leighton's own case now, there are at</p>	<p>1 other one -- I think the other one is probably at the 2 location of a drainage channel, drainage culvert. 3 COMMISSIONER HANSFORD: Which one is that, sorry? 4 A. Type 3. If I can see the plan again, I can see where 5 that is. 6 Can you show the legend? 7 MR CHEUK: On the right-hand side, can the witness be shown 8 the legend on the right-hand side. 9 A. Okay. Then can I see the plan again, the layout plan? 10 You need to go up a bit. 11 COMMISSIONER HANSFORD: There must be a hard copy of this 12 available, is there? 13 MR CHEUK: Yes, can we have B19 hard copy given to the 14 witness. 15 If you need the type 3 reference of panel C, you 16 might need to go to 25488. 17 A. Yes, the panel means ... 18 Q. Along gridline 35, you can find some type 3. 19 A. 34 to 37? 20 Q. 35, yes. 21 A. I think this may have been a capping beam that was 22 introduced. 23 Q. And type 4 -- 24 A. I need to know the panel numbers though. 25 Q. It's very small even on hard copy. But, Mr Buckland,</p>

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<p>1 I don't intend to, you know, do an identification 2 process here with you. 3 COMMISSIONER HANSFORD: No, but, Mr Cheuk, I think what 4 Mr Buckland has told us is there's essentially two types 5 of change; is that right? 6 A. Yes. The purpose for this type 3 and type 4 is 7 unrelated. 8 MR CHEUK: Yes. Can you explain a little bit more of type 3 9 and type 4? 10 A. Type 3 -- without knowing the actual panel numbers, 11 I can't be certain, but I think it may have been in the 12 location of the capping beam that was required because 13 of insufficient ... 14 Q. If I try to assist you to identify the panel numbers. 15 You have seen, between gridlines 34 to 35, where you can 16 find type 3; is that right? 17 A. Mm-hmm. 18 Q. If you go back to 25485 -- you can blow it up a little 19 bit on the screen. 20 A. Mm-hmm. 21 Q. We can go to gridlines 34 to 35. We can find, I think, 22 the panel number. Can we even blow it up a little bit? 23 Yes, I think it's clearer. Can we go even further 24 a little bit, I wonder? We can see EM86, 87 and 88. 25 Would that assist you?</p>	<p>1 situation where there was a utility space? 2 A. Type 4 is related to a similar problem but it's not 3 exactly the same. There were U-bars in the top section 4 of this but they were a different size, so we had to do 5 a remedial for this, which involved replacing with 6 L-bars. 7 Q. Yes. If we go to type 1, we blow it up a little bit, 8 this is the response to TQ33 or what I call -- the 9 general case of second change is type 1. 10 A. Mm-hmm. 11 Q. Essentially all the top rows of rebars were replaced 12 with through-bars, and there's hack-off and monolithic 13 concreting? 14 A. Yes. 15 Q. And type 2 is the response to TQ34, where only the first 16 row of rebar was changed to through-bar, but the other 17 second row or third row remained couplers? 18 A. Mm-hmm. 19 Q. Thank you. 20 A. But I wouldn't say that type 1 is only a result of TQ33. 21 It's a result of a combination of the two. 22 Q. I understand your position. That's probably a result of 23 both TQs and the General Conditions at the time? 24 A. Yes. 25 Q. According to Kit Chan's evidence, there was some</p>
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<p>1 A. I'm pretty sure that was a capping beam related to 2 substandard founding conditions for the panels, so the 3 load had to be spread across a greater number of panels. 4 So it has nothing to do with the change that we're 5 talking about. 6 CHAIRMAN: Substandard founding conditions meaning it wasn't 7 sitting on a solid base? 8 A. Yes. 9 CHAIRMAN: So you needed to spread the load a little there? 10 A. That's right, yes. And you can see these are -- the EM 11 means missed panel, which means so it's not sitting on 12 rock, so we had to rely on the EH85, EH87, EH89 to 13 spread the load. 14 MR CHEUK: If we go back to 25487, if we blow up type 3 15 a little bit, we can see it does involve concrete to be 16 hacked off and cast with slab; right? Your evidence, as 17 I understand it, is that this what I call variation is 18 not something to do with TQ33 or TQ34; it's due to the 19 capping beam? 20 A. Yes, I don't think it is. Yes. I'm not certain but 21 without -- 22 Q. To the best of your knowledge? 23 A. Yes. 24 Q. Can you also assist us on type 4. What has it to do -- 25 or is it just a variation of type 1 but applied to the</p>	<p>1 agreement between MTRC and Leighton. 2 A. Yes. 3 Q. Thank you, because we, through this very tedious 4 exercise, have traced through the chronology of what 5 I call the second change. 6 So if I may now just quickly move to another area. 7 If we go to H10/4563. This is MTRC's letter to the BD, 8 submitting site supervision plan, and if we go to 4572, 9 we find your name as AS representative of "Mr Brewster". 10 A. Yes. 11 Q. If we -- again, you were aware of this fact, of course, 12 I assume? 13 A. Yes. 14 Q. If we go, similarly, in the same bundle to 4512, again 15 we find another site supervision plan, in respect of 16 a different area. Again, we find you were appointed, 17 named as Mr Brewster's representative; okay? 18 A. (Nodded head). 19 Q. You can take it from me this is in respect of area C2, 20 and the first site supervision plan is in respect of 21 area B; okay? You can take it from me. 22 A. Okay. 23 Q. Then we go to the third site supervision plan, 4548. 24 This is in respect of area C3. We see the site varies. 25 Betty Ng was appointed as the representative of</p>

<p style="text-align: right;">Page 177</p> <p>1 Mr Brewster in respect of this area? 2 A. Yes. 3 Q. But Betty Ng actually reported to you at the time; 4 correct? 5 A. Yes. 6 Q. And we have heard Mr Brewster's evidence and my 7 understanding is the effect of his evidence is that he 8 relied on the representative to tell him any important 9 issue on the site, which includes you, of course; 10 correct? 11 A. Ah, I'm an important issue on the site, yes. 12 Q. How often do you go to the site, can you tell us? 13 A. At least once a week, but more often if there's, like, 14 temporary works issues or if it was required of me on 15 the SSP to inspect more frequently. 16 Q. And did you tell him what I call the first change? 17 A. No, I didn't. 18 Q. The second change? 19 A. No. 20 Q. Or what -- you're aware of NCR, the bar cutting 21 incident, NCR157? 22 A. I wasn't at the time, no. 23 Q. You weren't aware at the time? 24 A. No. 25 Q. And obviously that's why you didn't tell him?</p>	<p style="text-align: right;">Page 179</p> <p>1 around with him on site, for example, when there was 2 cracking in existing columns that had to be 3 investigated. 4 Q. And when BD raised the concern about the first change 5 and used the word cover-up for two years as we've gone 6 through the note, you still didn't think it's 7 a sufficiently important issue to be raised to 8 Mr Brewster? 9 A. At what point? 10 Q. During -- when you are aware of the first change and 11 BD's comments. 12 A. I told you just now, it was a work in progress. It's 13 not something that just suddenly happened. There were 14 very good reasons for why that change occurred, and then 15 it was just unfortunate that it hadn't been picked up 16 until -- hadn't been picked up in the design 17 justification until we got to the as-built drawing 18 stage. But we had had discussions with Atkins and they 19 had given us a message that U-bars weren't required, for 20 example, so that wasn't something that needed to be 21 reported. 22 MR WILKEN: I'm sure I will be corrected if I'm wrong but 23 the question my learned friend put about BD using the 24 word "cover-up" was in a document that this witness 25 didn't see at that time.</p>
<p style="text-align: right;">Page 178</p> <p>1 A. Ah, yes. 2 Q. Probably it's because it's 5 o'clock. 3 Well, I'll soldier on, because -- sir, I do have 4 some more questions. I think I can finish within ten 5 past five, if I may have your indulgence. I think I can 6 finish my part with him today. 7 CHAIRMAN: Yes. I think we do need to be more flexible now. 8 That's excellent. 9 MR CHEUK: If we may carry on for a few more minutes. 10 Why didn't you tell him the first change or second 11 change? 12 A. The first change started in about June of 2013. It was 13 a work in progress. It was a discussion between myself 14 and Atkins' designers and the members of the 15 construction team. It wasn't an NCR -- it wasn't 16 something that would have occurred to me to tell 17 Mr Brewster. 18 Q. How did you decide the level of importance which would 19 prompt you to tell Mr Brewster anything on site? 20 A. Well, if it's a non-conformance or an issue on site that 21 was beyond my own knowledge or scope or understanding of 22 the BD process, then I would involve Mr Brewster, but 23 otherwise it was just -- it was things we would take in 24 our stride. I mean, he came down a couple of times when 25 there were serious incidents happened, and I walked</p>	<p style="text-align: right;">Page 180</p> <p>1 A. That's correct. 2 MR CHEUK: That's probably correct, but I think he was 3 aware, in terms of my question, of the concern raised by 4 BD at the material time. 5 MR WILKEN: It was the specific phrasing of "cover-up" that 6 was concerning me. There's a difference between being 7 aware that someone is concerned and then being aware of 8 a specific phrase, and of course we are all conscious 9 that there are people outside listening and taking notes 10 for the media. 11 MR CHEUK: No problem. 12 CHAIRMAN: Yes. Were you aware of a letter that said 13 anything about, in inverted commas, "cover-up"? 14 A. No. Everything was above board. As soon as we knew 15 there was an issue, then we dealt with it through the 16 proper channels. 17 MR CHEUK: I go to a slightly different topic, about the 18 as-built records. 19 Do you accept that Leighton did not prepare the 20 as-built records for the connection details that raised 21 concern in the joint statement of MTRC and Leighton that 22 we have just seen, you know, the diagrams about what was 23 constructed there; we don't have contemporaneous records 24 of the construction details there prepared by Leighton? 25 A. Sorry, can you rephrase your question?</p>

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1 Q. Sorry. Let me rephrase.
2 Do you accept that Leighton did not prepare
3 contemporaneous records of what was constructed in the
4 east diaphragm wall?
5 A. You mean do I accept -- do I think it's --
6 Q. There was no such record?
7 A. -- okay, or do I think it happened, or what? I don't
8 understand what the question is.
9 Q. Do you know -- do you agree or disagree that there was
10 no contemporaneous record for the construction details
11 in the east diaphragm wall?
12 A. I disagree, because the site engineers took hundreds and
13 thousands of photos. That is contemporaneous records.
14 Q. But for the purpose of preparing as-built drawings to be
15 submitted to BD, you need to exactly set out the
16 drawings instead of relying on photos.
17 A. Yes, but in my experience, producing an as-built drawing
18 doesn't usually go to the level of measuring exactly the
19 dimensions of every coupler, the exact spacing. You
20 know, if it's been constructed in accordance with the
21 drawings, then it's taken to be as per the drawings on
22 the as-built. Unless there's a big discrepancy, then it
23 won't be shown.
24 The only reason it's going into so much detail now
25 is because this issue has blown up, out of proportion.

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1 Q. Were you involved in the preparation of the joint plan
2 that we have just gone through in the large --
3 A. The joint statement?
4 Q. Yes.
5 A. I had some involvement, yes.
6 Q. You had some involvement. Certainly you are aware that
7 we can now only rely on some site photos to tell what
8 was being constructed in those panels?
9 A. Yeah, at this time. Yes.
10 Q. Do you think it is more satisfactory -- I'll put it this
11 way -- if Leighton had prepared the contemporaneous
12 as-built drawings or records at the time of construction
13 instead of we now go through these site photos in order
14 to review --
15 A. If it had been known to be required to that level of
16 detail, and it was stated in the contract, then yes, we
17 would have done it.
18 Q. And, to your knowledge, is that your evidence -- to your
19 knowledge, you didn't know it was required in the
20 contract?
21 A. That what was required?
22 Q. As-built drawings should be provided to MTRC?
23 A. Yes, I know it's required, but as I said, in my
24 experience, the level of detail of as-built drawings
25 doesn't go to that extreme. Unless there's a major out

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1 of tolerance or things have been constructed quite
2 differently from the drawings, then there's no need to
3 do such in-depth contemporaneous records.
4 CHAIRMAN: Sorry, just to help me -- the plans themselves
5 would require the measurements and dimensions and that
6 kind of thing. If you make changes, wouldn't the
7 changes that you made, depending on the circumstances,
8 require similar dimensions and specifications?
9 A. Yes, but the kind of change we're talking about is
10 having a construction joint in a different place from
11 the original drawing and having continuous bars instead
12 of couplers. That is not something that is necessary to
13 see on an as-built drawing, in general. The function is
14 still the same.
15 MR CHEUK: So, according to your understanding, actually
16 it's not necessary to prepare what you call -- in the
17 B19 file, that level of detail of as-built drawings,
18 according to your experience --
19 A. Yes, in my experience. BD may have a different view on
20 that, but in my experience, generally you do a final
21 amendment drawing and you just convert the final
22 amendment drawing into the as-built, unless there are
23 significant changes.
24 Q. But if you want to convert the amendment drawings to the
25 as-built, you still need to have contemporaneous records

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1 in order to do the process; correct?
2 A. Yes, but most of the changes were dealt with at the time
3 and incorporated into the submissions. For example, the
4 multiple layers of couplers, there are, you know,
5 several design justification reports, justifying the
6 additional row of couplers, where they've had to be
7 moved because of the tremie pipe.
8 COMMISSIONER HANSFORD: Sorry, are you saying and
9 consequently they are in the amended drawings?
10 A. Yes.
11 COMMISSIONER HANSFORD: And therefore the amended drawings
12 by and large, are as-built?
13 A. Yes.
14 COMMISSIONER HANSFORD: That's what you are telling us.
15 Thank you.
16 MR CHEUK: Can I just move to the last topic, the role of
17 Atkins. We have talked about the role of Atkins A and
18 Atkins B. According to the evidence of Mr Andy Leung of
19 MTRC, he says -- you can take it from me, from his
20 witness statement -- he always insisted there should be
21 a separation between team A serving MTRC and team B
22 serving Leighton; okay?
23 And you, in your witness statement, refer to various
24 emails. I don't know if you recall. I can take you to
25 your witness statement. It's in the reply witness

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<p>1 statement bundle, if we can go to the reply witness 2 bundle. 3 COMMISSIONER HANSFORD: Is it C24023? 4 MR CHEUK: That's correct, Professor. You are absolutely 5 right. 6 At paragraph 14, here -- this is your evidence -- in 7 reply to the separation point raised by Mr Andy Leung of 8 MTRC, and then you refer to several emails which are 9 exhibited at BB-4; okay? 10 But I've gone through your emails. I don't find 11 anything saying MTRC approved the lack of separation 12 between the two teams. What is your response to that? 13 Because now we know, of course, for example, Mr McCrae 14 was the head of team A and the head of team B at the 15 same time, and there's substantial overlap between the 16 two teams. 17 A. Mm-hmm. 18 Q. So why did Leighton allow this to happen at the relevant 19 time? 20 A. Why did Leighton allow that to happen? 21 Q. Yes. 22 A. Leighton employed Atkins as our consultant. It's not up 23 to us to allow a non-separation to occur. 24 Q. Let's put it this way. MTRC employed Atkins team A in 25 the first place; correct? And then subsequently</p>	<p>1 of our Atkins team and MTR's Atkins team, it was 2 reviewed by the RGE and RSE before going to BD. 3 Q. Yes. And Mr Andy Leung mentions the interaction between 4 Leighton, Atkins and MTRC as follows, if I may go 5 through it with you. 6 For example, there's a contractor's proposal, and it 7 will come from Leighton after its consultation with 8 Atkins team B; okay? 9 A. Mm-hmm. 10 Q. And then the proposal would go to construction 11 management team of MTRC, which was, as I understand it, 12 headed by Mr Kit Chan? 13 A. Yes. 14 Q. And if he agrees, then the proposal would go to the 15 design management team of MTRC -- 16 A. Mm-hmm. 17 Q. -- which was headed by Mr Andy Leung himself. 18 A. Yes. 19 Q. Then the proposal would go to -- he said he would 20 consult Atkins' team A? 21 A. (Nodded head). 22 Q. So what strikes me as slightly uncomfortable is that the 23 proposal originates from Atkins' team B and then goes in 24 a full circle back to Atkins' team A to review it. So 25 was this a matter of concern to Leighton about any</p>
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<p>1 Leighton employed Atkins -- 2 A. Can you refer to it as DDC, because that's the name of 3 their team. 4 Q. Okay. That's more in accordance with your understanding 5 of the terminology. Okay, MTRC employed Atkins as the 6 DDC -- 7 A. Mm-hmm. 8 Q. -- in the first place, and it was subsequently that 9 Leighton also employed Atkins as its temporary works 10 design consultant subsequently. So why did Leighton do 11 that, ie using the same firm to serve him? 12 A. The main purpose was because we expected there would be 13 a synergy between our design and the DDC's design 14 checking, because they are effectively the same team, 15 and they have all their history and knowledge of the job 16 already, and we did actually talk to MTR about whether 17 they thought it was acceptable and they agreed it was 18 acceptable. But if they expected some kind of hard 19 separation, that would be impossible because there were 20 people working for our team who had been in the DDC team 21 and continued to be in the DDC team. 22 The only separation that I expected to exist was 23 between the RGE and RSE, because they represented BD for 24 MTR, so they were required to have, say, an independent 25 review of the submissions. So, no matter what came out</p>	<p>1 potential conflict of interest at the relevant time? 2 A. No. The only concern we had was if they gave us 3 proposals that hadn't first been agreed with their 4 so-called team A, because any proposal we got from them 5 we expected to be coming from a point of expertise with 6 respect to the history of the project. 7 MR CHEUK: Sir, Professor, I think it's time for me to sit 8 down. I have asked all my questions I need and I thank 9 you for your indulgence. 10 CHAIRMAN: You have finished your questions? 11 MR CHEUK: Yes. 12 CHAIRMAN: All right. Good. 13 Just so we have an indication for tomorrow -- 14 Mr Khaw, will there be questions? 15 MR KHAW: Yes, there will be some questions from Mr Chow. 16 CHAIRMAN: And at the back? 17 MR SO: No questions. 18 CHAIRMAN: Mr Boulding? 19 MR BOULDING: It rather depends on the answers tomorrow. 20 CHAIRMAN: Of course. I appreciate that. 21 MR CONNOR: I'm in a similar position, sir. 22 CHAIRMAN: Good. Thank you very much indeed. 23 Good. There will be some questions tomorrow, and 24 the position is that when you're in the middle of giving 25 your evidence that you're not entitled to discuss that</p>

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1 evidence with any other person. Okay? You're not
2 entitled to take advice or explain what's happening or
3 anything else like that.

4 When you've finished your evidence entirely, then
5 you can discuss it with anybody, including your lawyers,
6 but until then no. Okay?

7 WITNESS: Okay.

8 CHAIRMAN: So you have to keep mum overnight. Good. Thank
9 you very much indeed.

10 (5.10 pm)

11 (The hearing adjourned until 10.00 am the following day)

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