COMMISSION RESUMES ON WEDNESDAY 14 DECEMBER 2011 AT 9.30 AM

7 RICCARTON ROAD

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JUSTICE COOPER:

Well our first work today is to enquire into the circumstances of the failure of the building at 7 Riccarton Road where Mr Henry Ross (as he was known) Bush, lost his life outside the building. I know there are members of his family here today and the Commission expresses our condolences to you and we hope that you will gain a better understanding of the circumstances as, as we will as the hearing progresses. It may have the appearance of quite a clinical process. You will understand we need to reflect in a calm and structured way on what the circumstances were. Mr Zarifeh.

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MR ZARIFEH:

The building that was situated at 7 Riccarton Road was a two-storey standalone unreinforced masonry building and at the time of the February earthquake, indeed between September and February and before September it housed a second hand bookshop and appears to have been empty in the upstairs area. Following the September earthquake there was a level 1 rapid assessment by an engineer who was working as a volunteer under the emergency procedure that was enforced then. He conducted a level 1 rapid assessment and placarded the building green. That was a Mr Nigel Harwood. The next day, the 7th of September, a level 2 rapid assessment was carried out by a structural engineer, Mr David Elliott, who was acting on behalf of the tenant of the shop, the tenant is Mr North. The building was also green placarded by Mr Elliott. Mr Elliott returned to the building and did an external inspection two days later on the 9th and that confirmed in his mind the green placard status. Then on the 11th, so two days after that, the 11th of September there was a further council initiated rapid assessment inspection by a building inspector, a Russell Officer and a CPEng engineer with him, Vaughan McMillan. That was carried out, or they were asked to go to that address

because of a concern expressed by the tenant Mr North in a phone call to the council. This inspection resulted in a yellow placard being assigned because of concerns to the cracking in the façade of the building. That yellow placard was confirmed by a further inspection by the building inspector then working for the council, Mr Kain, on the 19th of October and Mr Kain's evidence will be read later in a statement form. Subsequently after the yellow placard had been assigned and Mr North had advised his engineer Mr Elliott of this, Mr Elliott went to the building on or about the 17th of September, he's not exactly sure of the date, and viewed the building again from the outside. He then had discussions with an employee of the council over what form of certification he should be completing. Forms were sent to him by the council. He had discussions about those forms and in the end altered the standard, what was referred to as the CPEng certificate form, by adding, "Condition is not worse," - "considered worse than prior to earthquake," or, "EQ." That form was accepted by the council with the result that the yellow sticker was changed to green and occupation was allowed by the tenants. That was the position that happened at the beginning of November 2010, the 8th of November it was changed and that was the position, a green sticker, at the time of the 22nd of February earthquake.

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In the February earthquake Mr Bush who was, as Your Honour's noted, known as Ross Bush was killed as he sat in his motor vehicle parked outside 7 Riccarton Road on the roadside when the façade of the, front façade of the building collapsed outwards and over the footpath and roadway and onto his car crushing the vehicle.

The proposed witnesses, there are a number but some will be relatively brief. Firstly Mr Smith, the structural engineer from Spencer Holmes, has completed a report. Then Mr Harwood who conducted the first inspection on the 6th of September. Mr Elliott who I mentioned on the 7th and 9th and again around the 17th –

JUSTICE COOPER:

You've left out Mr McCarthy, are we going to hear from Mr McCarthy?

MR ZARIFEH:

We are. I was just, well, it's not quite the order -

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JUSTICE COOPER:

Later on?

MR ZARIFEH:

I was trying to order it, yes. It may need changing because some people have got commitments I'm trying to fit around as well. So perhaps if that could be noted. Mr Elliott, then Mr Officer who inspected on the 11th, Mr McMillan who was with him, Mr Kain as I've mentioned will be read. There's a, an additional material that I hope is in front of the Commissioners from Fritz Muller who's a loss adjuster from Cunningham Lindsay –

JUSTICE COOPER:

Yes.

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20 MR ZARIFEH:

That's in the form of a statement from him with photographs and he will be called. He's the one I might have to juggle a little because he's got to fly out of Christchurch but he inspected the property in September and then November 2010 and took some photographs. He was, of course, he's not a structural engineer. He's a loss adjuster. He was looking at it from the position of the insurers and whether a claim would be accepted. So he will give evidence of that. David Yan, the owner. Morris North the tenant I mentioned, Robert Ling who was the structural engineer that, knew the owner and went to the property at the end of 2010 and after Boxing Day. The other two that are mentioned there, Lynette Andrell and Beth Adam are statements only and relate to more minor points which will be covered with other witnesses. And, of course, the council, Mr McCarthy from the council who I will call - I'll slot in after Mr Elliott because the council will deal with the CPEng

certificate and the alteration of that as well. So he'll, he can give evidence, he should give evidence after Mr Elliott. The likely issues that I've noted are the 0940

application of the council's earthquake prone policy to this building, the assessment of the building after the September earthquake and in particular the assessment, initial assessment that led to the change from the yellow status to the green status, the assessment of the building after the Boxing Day aftershock such that there was and perhaps allied with point 2 the CPEng documentation applied to change the building placard. You might want to note the appearances this morning.

JUSTICE COOPER:

Mr Laing and Ms Daines you are here for the City Council?

15 MR LAING:

Yes.

JUSTICE COOPER:

And Mr Elliott you are here for the Commission?

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MR ELLIOTT:

Yes Your Honour.

MR ZARIFEH CALLS

PETER SMITH (SWORN)

- Q. Morning Mr Smith. You as we heard on Monday are a structural engineer of some forty three years' experience and you have been engaged by the Royal Commission to complete reports on these buildings that we're concerned with in this series of hearings?
- A. Correct.
- Q. In that capacity did you complete a report on the failure of this building at 7 Riccarton Road and it's dated November 2011?
- 10 A. I did.

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- Q. I just want to if I can take you to the salient points of that report rather than get you to speak to the whole of the report. The, in particular the failure mechanism but you heard my description of the building as a stand-alone two storey unreinforced masonry which means that it's not, wasn't connected to any other building on either side?
- A. Correct.
- Q. Has that got any significance in terms of its stability in an earthquake?
- A. Possibly a little more vulnerable.
- Q. Without support?
- 20 A. Yes without any adjoining structures.
 - Q. And as far as you could gather had prior to the September earthquake had there been any structural strengthening or anything of that sort?
 - A. Not to my knowledge.
 - Q. So in fairly original condition?
- 25 A. Yes
 - Q. And presumably would have been built when, around the 1900s?
 - A. Yes 1900s.
 - Q. What's the, in the construction of buildings then and the use of brick, what was the mortar that was used?
- 30 A. There was often lime was used in the mortar.
 - Q. And is that the same nowadays?
 - A. No unfortunately not.
 - Q. Right just tell us briefly about the -

- A. Lime mortar creates a very weak mortar. It often can be eroded from the joints and it certainly does not provide a strong material or a strong lock between the bricks.
- Q. All right. And over time has anything happened to the lime mortar?
- 5 A. It can deteriorate in quality.
 - Q. Right. And what effect does that have on stability?
 - A. It makes the unreinforced masonry more vulnerable to earthquake in particular.
- Q. In your report you've noted that there were, there was a seismic risk
 building survey in 1991 look at page 3 of your report and a hazardous appendage survey in 1993?
 - A. Correct.
 - Q. And both of those identified cracking in the parapet of the facade?
 - A. Correct.
- 15 Q. And I think we've heard from Mr McCarthy in relation to other similar surveys that apart from the buildings being surveyed it doesn't appear that anything, it led to anything being done about the cracking in your observations?
 - A. Our understanding is that the council took it no further.
- Q. I just want to ask you about the structural failure of the building in the February earthquake. You deal with that on page 5 of your report. Perhaps the easiest way is for you to read that first paragraph: the cracking present.
- A. Certainly. "The cracking present in the façade of the building at 7 Riccarton Road reflects the development of a failure mechanism involving the upward movement of the central portion of the façade. The outward failure of the central portion of the façade is restrained by arch action between the piers at the north east and north west corners of the façade. For the mechanism to develop further would require an in-plane failure of the façade at the north east and/or north west corners of the building."
 - Q. Okay just stop there. I will get a photo put up so that we can, perhaps you can tell us, explain to us what you're talking about and perhaps the

- best photograph is BUIRC0070016.1 or .2. Let's start with .1 please. Now would that photo or a closer one.
- A. I think if people need to see the cracking you may need to have a closer one.
- 5 Q. All right I'm thinking about the mechanism first.
 - A. Yes the mechanism really there was cracking above the windows in that façade and it was through that cracking that was addressing in those comments.
 - Q. We will just send it through and we will see if we can get .2.
- A. There are three mechanisms that could happen with these failures of façade. The first is that the implied façade would pour outwards. The other is that those cracks above the windows would develop further and the central portion of the façade would fall out. For the central portion to fall outwards it requires a lateral movement of the outside edges of the wall because the wall has thickness. As it displaces it starts to force the outward load onto those outward edges of the building and that would develop cracks towards the bottom of the windows in the piers on the outer edge of the wall each side, and the point I was making in that is that there was no evidence of development of that cracking at the base of the windows on the outer sides of the wall.
 - Q. Right. And okay carry on reading please.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

- A. We did not observe cracking of the façade at the first floor level at either side of the façade in the photo of the façade following the 4th of September, 2010 earthquake. We did observe a crack immediately behind the ornamentation at the north end of the west wall to the front façade in the photos taken after the 4th of September, 2010 earthquake.
- Q. And perhaps if we go to .6, .8 sorry of that same series 0016.8. Does that show that?
- 30 A. Yes it does. There's a crack near the top of the, where the vertical step down of the parapet on the west wall there's a horizontal crack and then it quickly becomes diagonal until it becomes vertical behind the end of the ornamentation at the north-west corner.

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- Q. So just so we're clear it's horizontal from the corner towards the top right.
- A. Yes.
- 5 Q. And it crossed then diagonal, as you say, and then it runs down vertical behind the front of the parapet.
 - A. Yes and the concern is that that crack would develop to separate the façade from the return wall, west wall.
- Q. And so in terms of when you look at cracking on a building such as this
 where are you most concerned or are there locations that you have more concern about when you see cracks?
 - A. Yes your looking for potential failure mechanisms, you're also looking to the extent to which the recent earthquake may have made the cracking or caused the cracking. Sometimes there is existing cracking so you're looking at areas where the recent earthquake has caused an extension of that cracking or new cracking.
 - Q. And we know, and I'm going to get you to come to that in a moment, but this photo was taken by Mr Elliott I think on the 7th of September, so after the September earthquake, but we know from the photograph or a photograph taken by the Council in that hazardous appendage survey I think it was back in '93 that there was already some cracking in the building, in the façade.
 - A. Yes, yes, those photos do record some cracking in these areas.
 - Q. But, in terms of existing cracking, what effect can an earthquake have?
- 25 A. Obviously it demonstrates the weakness of the building and also demonstrates that the building has suffered some damage in the past.
 - Q. And can a crack be extended or widened?
 - A. Very definitely.
 - Q. All right carry on reading please.

30 WITNESS CONTINUES READING BRIEF OF EVIDENCE

A. "The crack appears aged and to relate to a potential front parapet failure. From the photos the crack does not appear to extend below parapet level. It is unknown the extent to which the cracking was

- developed on the west side prior to the 4th September 2010 earthquake. There has been some evidence to suggest "
- Q. You might just have to get that microphone in the right spot again. You can't turn away from it.

5 WITNESS CONTINUES READING BRIEF OF EVIDENCE

- A. "We have seen, heard some evidence that there was a crack on the west side" –
- Q. On the east side?
- A. On the east side, yes sorry.
- 10 Q. I think there's a photo of the east side.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

A. "Photos of the east wall after the 22nd of February 2011 earthquake showed that the failure at the north end of the east wall is located approximately 800 mm back from the front of the northern façade."

15 WITNESS REFERRED TO PHOTO TAKEN ON THE 7TH - 0016.3

- Q. Now I don't know if we can see in that or it might be able to be zoomed in a bit on the top right corner of the parapet.
- A. Is there not a better photo?
- Q. Not of that end.
- 20 A. Okay.
 - Q. Have you seen a better one?
 - A. I thought there was a better one.
 - Q. Have you got it in your report? This is the one from your report on page 19.
- 25 A. Mmm.

JUSTICE COOPER ADDRESSES COUNSEL – RE PHOTO HAVING DIFFERENT NUMBER – MR ZARIFEH CONFIRMS IS SAME PHOTO

- Q. So can you make any comment about that?
- A. Only that its difficult to see the cracking clearly on that photograph.
- 30 Q. Can you see any cracking?
 - A. There appears to be a crack running diagonally down from the vertical return or drop of the return parapet to the start of the ornamentation.

- Q. Right, just so that we're clear where that is. Is that the diagonal line that runs from the corner that's to the back right just behind it is some vegetation?
- A. Yes.
- 5 Q. And it runs to, as you say, the corner of where the ornamentation is attached to the side of the wall.
 - A. Yes.
 - Q. Is that the one we're looking at in green?
 - A. Yes, great.
- 10 Q. Blue, thank you. All right carry on please.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

- A. "We consider it likely that the failure mechanism on the 22nd of February 2011 earthquake was an outward rotation of the entire Riccarton Road façade about its first wall support primarily due to the inadequate restraint at roof level."
- Q. Right, so just perhaps explain that to us. Perhaps we'll go back to the .2 photograph. See that photograph on the screen?
- A. Yes.

- Q. Is that one best to describe that?
- 20 A. No I think the, better to describe it is the photos after the February earthquake. Page 23.
 - Q. Page 23 of your report 0031.23 or perhaps a better one is, it's the same one 0030.2.
- A. Yes. Looking at that photograph you'll see that just above what is appears to be a....
 - Q. Well right, there you go.
- A. Right you can pick out sort of first floor level where the wall remains on the west, towards the western side of the north wall and there's a tearing of the brick work off the, what would be the east wall, nearly vertical and then the remnants of the wall left at the north-east corner. So basically the façade rotated out from the roof at ceiling level, fairly much about the first floor support, and will have rotated and landed on Riccarton Road.

- Q. Okay and...
- A. I think you can see the sort of 45 degree line at the very top of that wall where that crack originally was.
- Q. So just above the apostrophe.
- 5 A. Well no further, the very, I think that 45 degree crack is just the very upper inclined surface of the east wall after the earthquake.
 - Q. Right so which crack are you talking about?
 - A. That was the one we looked at in the previous photos before the earthquake.
- 10 Q. So that rotation, you said, was primarily due to inadequate restraint at roof level.
 - A. Yes.
 - Q. Just tell us about that.
- A. Well a façade gains support from two areas. It gets support by its connection to the return walls and to the roof structure of the building across the frontage of the façade. Clearly if there's very little connection at roof level it's free to deflect in the centre of the wall and eventually tear itself from the side walls. As you can see in that photograph a failure of the west wall for some distance also occurred in the earthquake.
 - Q. Right so what, when you say inadequately restrained, what kind of things can be done to try and restrain a façade like that on a building like that.
- A. To restrain a façade it's necessary to provide a perimeter tie at the ceiling or roof level and to have a diaphragm at either ceiling and possibly even roof level depending on the height of the façade.

- Q. And what do you mean by a diaphragm?
- A. A diaphragm is a floor for instance, that's a diaphragm, you may need a plywood overlay, the same for a ceiling instead of just a gib board or it was probably a plaster lath ceiling if you place plywood at ceiling level it can act as a what we call a diaphragm to spread the load the face loading on the façade back to the side walls of the building.

- Q. Right and that kind of thing might have been done in the past if, as partof the seismic strengthening –
- A. Indeed.

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- Q. programme? If it had been, okay, so in that photo and the other one we just flashed up before you can see that there appear to be no wall linings or ceiling linings in that upper floor?
 - A. That's correct.
- Q. And this, you're aware from the written material that the owner Mr Yan has said that he removed the ceiling and wall linings in the upstairs basically just before the February earthquake in the couple of weeks before. I think he says on instructions from Mr Ling to clean out the upstairs with a view to making alterations and put some strengthening?
 - A. That's correct.
 - Q. What effect does that have on the strength of the building?
- 15 A. It does lose some integrity. Unfortunately the ceiling and the wall linings that were in the building were relatively weak and under the severity of shaking in February it's unlikely that they would have prevented an outward collapse or that the façade was adequately connected to those diaphragm elements. However, by removing them it does make it more vulnerable.
 - Q. Thank you.
 - A. Probably more in a moderate earthquake.
 - Q. Now you talked about the 1991 I think it was survey where there was some photographs and we've got those photographs which are 0015.1.
- I just wonder if we can get that up on one half of the screen and another one up on the other. Test the technology.

WITNESS REFERRED TO PHOTOGRAPHS

- Q. And if we can focus in on the top right photo please. So that's a photograph from the Council file and appears to have been taken actually in 1993 of the Hazardous Appendage Survey?
- A. Correct.

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Q. And I just wanted you to look at because your comment in your report if you, if we can bring up 0016.2 which is a photograph taken by Mr Elliott

I think on the 7th of September last year. Perhaps while that's happening – here we go, can the top right – no okay, all right well in your report page 7 I'm referring to you say that the review of the photos taken by Mr Elliott on the 7th of September indicates that there had been some additional cracking as a result of the 4th of September earthquake, additional cracking compared to those –

- A. Perhaps if we could just bring up the ones taken by the Council initially and look at the crack above the –
- Q. The top, top right.
- 10 A. Yes. Sorry the top...
 - Q. Top right of that photo, those photos?
 - A. Of those ones yes.
 - Q. Yes.

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- A. And just look at the crack above the eastern window in the north façade.
 That's it, and the crack is evident very fine just to the east of the central ornamentation above the window. It's very prominent down through the ornamentation, the horizontal ornamentation and then there is a faint crack evident just coming down on the east side of that central ornamentation.
- 20 Q. Well have you got a pointer over there haven't you or not?
 - A. Yes.
 - Q. I just wondering if you can point on the main screen so that we can be sure of that?
- A. The crack's very evident down through to there but there is a crack evident
 - Q. Okay you've got, you can't speak if you going to be pointing, I think it's been ringed now.

JUSTICE COOPER:

- Q. Well the first part that you were addressing has now had an editorial red oval placed around it.
 - A. That's right. Very prominent down through there, it's prominent down in that area. There's a second a crack in that area.

- Q. Yes.
- A. But if you look closely there is also a crack coming down in this area.

 But it's a much finer crack and if we look at that after the earthquake I think it just helps to show the...

5 **EXAMINATION CONTINUES: MR ZARIFEH**

Q. Okay we'll go back to the other one.

JUSTICE COOPER:

- Q. So just to capture that in terms of words because this is being recorded offsite as you know so you've indicated I think three cracks which you say proceed down the building towards the upper arch of the eastern window?
- A. Yes. Yes.

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EXAMINATION CONTINUES: MR ZARIFEH

- Q. All right and if we go back to the other photograph 7 September?
- 15 A. Now you see in this one that what is –

JUSTICE COOPER:

Well just record we're now looking at photograph 16.2

EXAMINATION CONTINUES: MR ZARIFEH

- A. In this photograph the crack centrally above the window through the top
 20 parapet is still evident but the crack on the eastern side of the
 ornamentation above, central ornamentation above the window doesn't
 appear to have extended but the crack on the western side in line
 almost with the west side of the window opening has extended down
 and appears to come down through to the arch above the window.
- 25 Q. Okay.
 - A. And I think a similar if we look at that photograph to the western window in the north wall I think you'll see that that crack which extends now from the, the vertical ornamentation to the central parapet extension just on

the western side of that it moves slightly diagonally to work its way right down to the top of the window arch sort of central between the central ornamentation and the eastern side of the window and if we can go back to the other photo if we're keeping that in mind we can have a look at how that was before the earth- or how it was that year 1993 or one. Move over to the right-hand side is it possible to, does that not come? Okay, maybe we can't.

Q. There's another one -

JUSTICE COOPER:

- 10 Q. So you want us, you were directing our attention to the
 - A. There is a photo which does show the cracking above that.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Yes but you're wanting a '93 photo aren't you?
- A. Yeah, just a minute.
- 15 Q. There's another photo I don't know if it's any better and it's on page .1 5.2, 0015.2 sorry. Is that any better? It probably isn't.

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- A. No. It's a little difficult to see isn't it? But certainly that cracking would appear to be slightly more prominent. You can see the crack developed through the parapet and through the vertical ornament the horizontal ornamentation but I think it's evident it has developed below that horizontal ornamentation down to the top of the window from what was there in the photograph in '91.
- Q. In '93.
- 25 A. '93, all right.
 - Q. So the other qualification I suppose is that there's some 17 years between 1993 and –
 - A. Yes.
 - Q. 2010?
- 30 A. Mmm.

- Q. But the essence of what you're saying is that there's certainly cracking shown in 1993 but the 2010 photographs, at least in those two areas you've identified, show extensions of those cracks?
- A. It would appear so, yes.
- Now the other area I wanted you to comment on was the assessments. We're going to hear from some of the people that did assessments, rapid assessments and inspections of the building following the September earthquake and as you know the building was, a level 1 rapid assessment conducted on the 6th and the building green placarded, inspections conducted on the 7th and 9th by Mr Elliott and the same result and one on the 11th and a yellow sticker signed and then on the 19th of October the same. I think in your report you consider the variation in opinion I suppose you'd say over what presumably was the same or similar damage that was being observed?
- 15 A. I would expect it was, yes.

- Q. Right and you make a comment about, about that difference, looking at the bottom of page 7?
- A. "We're of the opinion that the difference in opinion over the severity of damage is due to the CPEng engineers assessing the extent to which the building had been damaged by the recent earthquake while the building inspectors and Mr McMillan were assessing the risk of the building being damaged in a subsequent earthquake."
 - Q. I just want you to explain that a bit more. What do you mean by that difference?
- A. I think engineers that were undertaking the rapid assessments were looking for deterioration of the building. The rapid assessment process focussed on damage to the building and identifying if the building was less able to withstand an aftershock than before the previous or the earthquake that had occurred. I think the assumptions were always on a decaying aftershock sequence. I think that the building inspectors probably brought a risk assessment more objective probably on the building and the presence of cracking may have appeared to be more serious to them.

- Q. Right. So was it a difference, an actual difference in approach or was it perhaps one or some being more conservative?
- A. I suspect it's slightly more conservative. I also suspect that following Christchurch we do need to be more conservative. Christchurch has tragically shown that an aftershock can result in more severe shaking in, in an area and I think with these unreinforced masonry buildings it probably is appropriate to be prudent.
- Q. All right. I think you made the comment in relation to another building that perhaps there's to be a review of the level of assessment of an unreinforced masonry building following a significant earthquake. Is that what you're talking about?
- A. I think engineers need to be briefed by the parties who can advise on the risk of aftershocks and the sort of level of strength that buildings should have prior to occupancy or public access. That may be that, if the building hasn't lost strength it's acceptable, if the aftershock risk is low or if there is a concern of a more significant aftershock it may be that the building needs to have a certain percentage of new building standard.
- Q. Okay. In terms of the changing of the placard. We know that it was changed to yellow and then changed back to green following an inspection by Mr Elliot on or about the 17th of September. The council records and some email correspondence between the council and the tenant make it clear that the council required, seems to have required at least a level 2 assessment before that, by a CPEng engineer before that change could come about?
 - A. Correct.

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- Q. Have you got any comment about that? Would you agree that, with that kind of assessment?
- A. I think for whatever reason that the building had been given a yellow placard, when that is to be reviewed and the building given a green placard the assessment needs to be relatively thorough to ensure there is not some deterioration in the building since a previous inspection or

- that there is not some damage which had not been noted in the previous inspections.
- Q. Should that include, in terms of a level 2 should that include an internal inspection?
- 5 A. I would expect it to be a reasonably comprehensive inspection if the placard is to be reduced from yellow to green.
 - Q. Mr Muller the, the loss adjuster will give evidence of looking inside the building on the 27th of September and observing where the façade appeared to have moved away from the side wall and it's 0051.3. There's a photograph he'll refer to us of that. The top right photograph.
 - A. Yes.

- Q. Now I appreciate you didn't actually see this but you've read Mr Muller's email and you can see the photo. Is that of any concern? Would that be of any concern to you as an engineer?
- 15 A. It is of concern. It is evident from the photos on the outside that that movement is not reflected by a failure of the brick work or doesn't appear to be a failure of the brick work. I take the interpretation of that photo that the roses are on the east wall and that the white plastered surface is the front wall. Is that –
- 20 Q. Well we'll find out from Mr Muller. But -

JUSTICE COOPER:

I was going to ask you – do we know?

25 MR ZARIFEH:

I think it is. I'm not 100% sure but -

JUSTICE COOPER:

On the left-hand side subject to what Mr Muller will say, the left-hand side, the plain wall, there is the front wall of the building fronting Riccarton Road is that right?

MR ZARIFEH:

That would appear so wouldn't it, with the tenants moved out?

JUSTICE COOPER:

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That would be my interpretation.

5 **EXAMINATION CONTINUES: MR ZARIFEH**

- A. There is clearly some evidence of movement there and one would need to be confident as to why that movement had occurred.
- Q. Well he says that the junction between the façade and the main support structure of the building had parted but that the very noticeable crack was pre-existing in his view although possibly exacerbated by the earthquake.
- A. I suspect the side walls were strapped and lined and it really is a matter of whether there's any structural failure occurred in the masonry rather than any possible movement of the strapping and lining.
- 15 Q. Right but just in terms of seeing that movement my question was would that be a concern to you as an engineer?
 - A. It should be investigated, yes.
 - Q. And how would you investigate that?
- A. It may be necessary to remove some of the wall lining to ascertain the condition of the wall.
 - Q. And you said that that movement wouldn't necessarily have been observable from the exterior?
 - A. I think it's favourable that it wasn't observable from the exterior because it rather indicates that the wall was not cracked behind and that photograph certainly indicates that it is aged movement but it still I think justifies investigation.
 - Q. And is that perhaps another indicator of the need to look inside these kind of buildings?
- A. Especially if someone has seen fit to give a building, I think all unreinforced masonry buildings probably need to be inspected on the interior after a significant earthquake. If that had've been structurally

significant it wouldn't put, it certainly wasn't evident from the exterior and I think these buildings are so brittle that it is important they are inspected properly before they're occupied or public access is given.

CROSS-EXAMINATION: MR ELLIOTT

- Q. Mr Smith, Mr Bush's family will be here today and I'm just going to ask you one or two questions to clarify your explanation so we can understand the failure. Am I right in saying that you've identified, just by looking at the photographs, two separate possible failure mechanisms one being that the whole façade falls outwards and the other being that the central portion could fall outwards?
 - A. That's correct.
 - Q. And in your evidence have you identified two separate sets of cracks, one of which would relate to each of those two possible mechanisms?
 - A. Correct.

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- 15 Q. And the cracking along the windows to the frontage would relate to the possible, what you call, in-plane failure of the central portion falling outwards, is that right?
 - A. I think the cracking above the windows allows a possibility for the façade between those cracks to move outwards but to do so it has to actually cause damage to the piers at each side of the wall because as you take the thickness of the wall
 - Q. If you just move back to the microphone please.
 - A. if you imagine if you have the wall as a crack at that point and as you open the crack it actually increases the width of the total masonry between the outside edges of the wall and that forms arch action which pushes on the piers at the edge of the wall and that would then form a failure towards the base of those piers if that action was developed.
 - Q. That's a separate mechanism of failure than the whole façade falling outwards, is that right?
- 30 A. Yes and the vertical cracks above the window are less significant if that mechanism isn't forming. At the end of the day the cracks behind the façade were the ones that were much more significant.

- Q. So with the in-plane failure involving the description you've just given, would that involve some compression of the wall in an east/west direction possibly resulting in an in-plane failure?
- A. It certainly, there's some thrusting against the east and west sides of the wall from the central portion.
- Q. I see and so the mechanism of failure where the whole façade falls outwards would potentially have been indicated by the cracking behind the parapets and I'll just draw the photograph up for you RIC007.0008.14. That's the cracking up in the top right-hand that you're talking about is it that would potentially indicate –
- A. Yeah the cracking being indicated which comes firstly horizontal behind the step in the parapet, the return of the west wall and then runs diagonally down and appears possibly to be over the depth of the ornamentation of the parapet. It could also just end up being a failure of the parapet about that point. In other words the parapet could have just fallen off the building leaving the rest of the façade, was another possible mechanism.
- Q. So that cracking indicates some degradation of the façade at that point already, agreed.
- 20 A. Correct.

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- Q. And the possibility of a complete failure by the parapet and façade falling outwards. Is that right?
- A. Yes, correct. Well if that developed by tearing the wall down vertically, virtually with that (inaudible 10.24.36) then the façade would be free to fall.
 - Q. Judging by the photographs that you've seen post-collapse, where the façade seems to have fallen outwards completely, would that indicate that the failure mechanism just discussed was activated.
- A. I think, it's a little uncertain as to just what happened at the western side because the entire west wall failed. If you can go to the photograph after the earthquake.
 - Q. I'm not sure which one you'd like to refer to.
 - A. Ah there was the one that we looked at on page –

JUSTICE COOPER:

- Q. 31.23 perhaps.
- A. Page 23 or 24 would do.

5 CROSS-EXAMINATION CONTINUES: MR ELLIOTT

- Q. Is that the one you mean?
- A. Yes that one demonstrates it. The entire west wall in that, from the northwest corner has also failed so just how that came about is very difficult to predict from the photographs but it appears that the entire north wall has fallen out into Riccarton Road and there's a photograph down the side which indicates that the west wall fell into the lane on the west side of the building.

JUSTICE COOPER:

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15 That might be photograph 31.22 I think.

CROSS-EXAMINATION CONTINUES: MR ELLIOTT

A. You can see the, I know it's on it's side but it's possible to see the debris down in the lane. Well that's further back, that's the section of wall that failed at the return of the north wall. This damage here is further back in the building.

JUSTICE COOPER ADDRESSES MR ELLIOT – RE ROTATION OF PHOTO

- Q. Well I think you've explained that point though. You're referring to the western wall and the north-western corner of the building and just indicating that the whole lot has come away both on the northern and the western frontages.
- A. Yes.
- Q. Is that right?
- A. Yes.
- Q. In your report you refer to inadequate restraint at roof level and you attribute that to being one of the reasons why
 - A. All of the –

- Q. the façade came away.
- A. When they constructed these buildings they did not tie the facades back into a diaphragm. Often it was a relatively weak ceiling lining and the connection to that element was relatively weak.
- 5 Q. Would the internal photograph that Mr Zarifeh showed you with the frontage apparently moving away, would that indicate that there was an absence of restraint at roof level?
 - A. It appears there's been movement vertically up the wall at that location. It appeared to be relatively uniform which, if it was a lack of restraint you'd expect the crack to be widening with height, in other words as the crack goes up the building you'd expect to see it slightly wider at the top. So it did appear to be more uniform and inward.
 - Q. I was just going to ask you about directionality. Am I right in saying that directionality of an earthquake relates to the direction from which the horizontal accelerations are coming towards a particular building?
 - A. Yes, there often is quite a strong link between the directionality of the building from the earthquake epicentre. For instance in the 4 September the earthquake was orientated from the south down Riccarton Road so the front façade probably was not subjected to a lot of outward loading. The February 22nd earthquake came from the sort of south-east and, therefore, probably subjected the façade to more significant loading.
 - Q. So earthquakes from different directions can test a building in different ways. Is that right?
- 25 A. Correct yes.

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- Q. So is it possible that a failure mechanism that wasn't triggered in September could have been triggered subsequently, even by a lower level of earthquake, but from a different direction?
- A. If the building had a significant weakness in a different direction that's certainly possible.

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- Q. So an engineer assessing a building would not just need to give consideration to possible magnitude but also possible direction of an earthquake?
- A. Correct.
- 5 Q. You've made observations in your report about cracking and you've formed opinions about the development or the existence and development of possible failure mechanisms and they're all based on looking at the photographs and your own expertise, weren't they?
 - A. Correct.

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- 10 Q. There's no reason why an engineer doing an inspection on a building could not arrive at similar views about possible failure mechanisms of that building is there?
 - A. I would expect an engineer could go through that process.
 - Q. In fact they would be in an even better position than you by being able to look at the building inside hopefully and outside?
 - A. It's the wonderful benefit of hindsight but ability to look at the cracking in detail certainly would be of assistance.
 - Q. It wouldn't be something you would learn from hindsight that a building could be looked at inside and outside to form a good view about its integrity is it?
 - A. No, I wasn't inferring that.
 - Q. If one was considering the potential fall zone of that façade on the northern side one could calculate what it might be just by looking at the height of the parapet. Is that right?
- 25 A. I don't think in the rapid assessment process the calculations are part of that process.

JUSTICE COOPER:

You were not really asked the question about the rapid assessment process.

30 Mr Elliott's question was whether you could calculate likely fall zone from the height of the façade.

CROSS-EXAMINATION CONTINUES: MR ELLIOTT

- A. Sorry if you calculate the?
- Q. Could an engineer look at the height of the façade of that building and calculate what the likely fall zone of the façade would be if it collapsed?
- 5 A. Yes I believe so.

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- Q. And is the likely fall zone likely to be greater the higher that the façade is?
- A. I think one potential mechanism is for the wall to rotate often about the first floor support. This building had had, a concrete frame installed across the street frontage in the past and it was a logical weak point.
- Q. I will just test this on you but one was to know roughly the distance between that point in which you say it rotated and the height of the façade would that same distance be the fall zone from the base of the building outwards to the street?
- 15 A. That would be the sort of zone I think you would think about protecting if there was a concern for the façade failing.
 - Q. Just finally you've already quoted a comment about your opinion about the difference in opinion over the severity of damage between engineers being due to CPEng engineers assessing the extent to which the building had been damaged by the earthquake and others assessing the risk of the building being damaged in a subsequent earthquake. Would you agree that the better test, the one that makes more sense in terms of keeping people safe, is the latter test?
- A. I think after the Christchurch experience we do need to review the basis of the rapid assessment process.
 - Q. But if one was outside of the rapid assessment process, if an engineer had time to give further consideration to the safety of the building the latter test would be the one to apply wouldn't it?
 - A. I think if we were to predict against a reoccurrence of what happened in Christchurch that's correct.

CROSS-EXAMINATION: MR LAING

- Q. Just one question, Mr Smith. If I can take you back to page 7 of your report, the last paragraph and you've already been questioned about this. This relates the difference of opinion between the building inspectors and one engineer and the other engineers.
- 5 A. Correct.

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- Q. Ultimately would you agree that the civil defence response plus the council after that time would have to rely on the views of chartered professional engineers rather than building inspectors?
- A. That certainly was the basis of civil defence with chartered professional
 engineers for maintenance correct.
 - Q. And thereafter would you also agree that if the council was considering whether a building was, should be reoccupied to rely on a chartered professional engineer?
 - A. I do believe that a chartered professional engineer's opinion should probably be taken over that of a building inspector.

COMMISSIONER CARTER:

- Q. Mr Smith, just noticing that the comparisons on the photographs with between photographs taken in 1993 and those taken in 2010, have you any observations about perhaps deterioration that may have occurred in increasing those cracks in the intervening period rather than at the 4th of September earthquake itself?
- A. I think where a crack was present and looking at the level of maintenance that the building received over that period, any crack that
 25 was there would become more dominant just due to weathering action on the crack. It's possible the cracks did extend but probably more probable that that happened in the earthquake.

JUSTICE COOPER:

30 Q. Once a building has received a yellow sticker in the post earthquake assessment process what is your understanding of the process that should be followed for replacing that with a green sticker?

- A. My understanding is that it should be at least a level two assessment by a chartered professional engineer having inspected the building.
- Q. And the level two assessment would involve inspection inside as well as outside?
- 5 A. Yes definitely.

WITNESS EXCUSED

MR ZARIFEH CALLS

NIGEL JOHN HARWOOD (SWORN)

- Q. Mr Harwood, your full name's Nigel John Harwood?
- A. Yes.
- 5 Q. And you have prepared a written statement that you've signed?
 - A. Yes.

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Q. Have you got it in front of you? Thank you. Can I ask you please to read that to the Commission and while you're doing that I will get the document that you completed that you're going to refer to brought up on the screen so that it's there. It's 0017.1

WITNESS READS STATEMENT

My name is Nigel John Harwood. I studied civil engineering at the Α. University of Canterbury from 1973 to 77 graduating with a BE and ME. After returning from overseas in 1979 I was a structural/civil engineer working in New Plymouth specialising in structural design ranging in 15 sizes from house beams through to an eight storey building. The eight storey building was designed using the capacity design philosophy. After becoming a registered engineer in 1983 this title has now changed to charter engineer. I joined the MacConnell Dowell construction group 20 where I held a variety of positions ranging from site engineer through to manager of their Fijian operations. After completing my MBE in Otago in 1990 and leaving MacConnell Dowell in that year I worked for Management Consultants for two years before becoming the Dunedin City Council water manager for nine years from 2001. I then joined 25 Delta Utility Services Limited as leader of the asset management capital and management team. I left Delta after 10 years in October 2011 and formed my own engineering consultancy. I deal with a wide range and these range from structural design - construction, strategic thinking, asset management and civil defence involvement based on my civil 30 structural experience and training.

Events on Monday 6th of September, 2010. My recollection of events on this day are as follows: We assembled at the Art Gallery. We were given a briefing and formed into teams. I was one of two teams that

were to assess buildings on Riccarton Road from Hagley Park to Church Corner. We actually started the other way around from Church Corner to Hagley Park.

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5 Q. Okay.

The teams were made up of a chartered engineer, building inspector, support person from CCC and a member of Urban Search and Rescue. I was in charge of the group on the north side of Riccarton Road and Henry, I cannot recall his surname, was in charge of the group on the south side. We started up by Church Corner. We calibrated our eyes by going through the church there. By memory we gave the church a yellow card. Then Henry led the south side and I the north side one with the proviso that if we were not sure about anything we would talk to each other. I suggested this course of action because I'd undergone building assessment training by David Brunston in Dunedin along with quite a few building inspectors. I was also older than Henry with more management experience. By memory most of the damage was on the north side of Riccarton Road. I think Henry only had to red card one building. We returned to the Art Gallery and were tasked with going back and putting cards on all the buildings. We'd only red and yellow carded buildings in the morning. I'm not sure whether Henry came back in the afternoon or was tasked to other work. So in effect in the morning we triaged the buildings into red, yellow and green not carded so green carding the majority of the afternoon gave us a chance for a second look at them all. So when I filled in the level 1 form at 12.38 pm I got in a time am and 12.38 thus this building was externally inspected twice on Monday by two different chartered engineers and given a level 1 green card. A green card does not mean that the building is safe. It means there is no apparent structural or other safety hazards have been found. The green card encourages owners to obtain a detailed structural engineering assessment of the building as soon as possible. It also advises that subsequent events causing damage may change this assessment. On looking at the photos sent to me on 10th of November 2011 the building's paint was poorly maintained and there appears to be a mixture of old and new cracks. I do not recall seeing the crack behind the parapet. That's is not unreasonable because of the number of buildings that I inspected. Looking at the photo of the crack behind the parapet, if there – if there was one on the Monday we would have seen it and would have collectively would have agreed to the green card. I've seen worse cracks on buildings in Dunedin that have not been as stressed as those buildings in Christchurch were. As an aside I actually have photos of that as, I did as part of a public submission on Dunedin's earthquake thing here with me. With the knowledge that I now have after being a volunteer with a lot more post earthquake building assessment I would almost certainly green card it. The photos do not show the scale of the building compared to standing near it so I cannot say with certainty if I inspected that building today whether I would recommend a level 2 inspection and so tick that option on a level 1 inspection sheet.

Q. Thank you, now you'll see the form that you completed on the screen in front of you?

WITNESS REFERRED TO INSPECTION FORM

20 A. Yes.

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- Q. And there's a screen in front of you. That's the form you completed with 12.38 as you said on it?
- A. Yes and that is my signature down the bottom on the bottom right.
- Q. Okay and you've ticked "minor damage"?
- 25 A. Yes.
 - Q. "Minor to none" damage?
 - A. Yes.
 - Q. Correct. And as you said green placarded it?
 - A. Yes.
- 30 Q. That's a level 1?
 - A. Yes.
 - Q. So that's an external view only of the building?
 - A. Only.

- Q. Right.
- A. By memory we could not see down that lane on the western side because there was a gate across there which is shown in the photos.
- Q. Okay so you're looking essentially at the front of the building?
- 5 A. We, and the sides that we could see. Do you wish me to explain what the sort of thing we did for each building?
 - Q. Okay.
- A. We would, as a group look at it closely and watch the traffic go to the middle, or the other side of the road, get a whole look of the front, move to each side where possible and look and then start thinking about it and talking about it and I would articulate what my thoughts were and invite other comments ranging through from perhaps you call it you know the naïve comment from the person in the group that was not, was not had, sorry whose trade did not involve anything to do with buildings, a City Council employee, a building inspector, the especially in the morning, I'm not too sure in the afternoon whether we had Urban Search and Rescue with us, what they thought they're experienced firemen and so there would be a discussion and I would listen to various points counted but I would make the call as to the card.
- 20 Q. Okay.
 - A. Some discussion.
 - Q. And is that what you did in relation to this building?
 - A. I believe so yes because I not only, it was my practice with every building I've looked at both in September and February, March.
- 25 Q. All right.
 - A. And I've written a paper which I've put into IPENZ stating that.
 - Q. Okay. I'm just asking can you actually remember this inspection or not,I mean I'm not it's not a criticism I understand –
 - A. Not, not in any detail.
- 30 Q. Okay.
 - A. Because of the number I've looked at.
 - Q. All right and you've been shown those photographs that were taken?
 - A. Yes.

Q. Do they, I'll get a couple brought up on the screen but do they accurate depict the state of the building as you saw it on that 6th of, perhaps we'll go to 0016.2.

WITNESS REFERRED TO PHOTOGRAPHS

- 5 Q. Does that help you with your recall of the building or not?
 - A. To be honest not, not a lot.
 - Q. Okay. And you mentioned I think a crack that you didn't see. If we go to.8. This is a view of the west wall coming up.
 - A. No I –
- 10 Q. And maybe that's the -
 - A. No, could I say that I don't recall seeing it. We would have seen it going through the, if it was there with the procedure we used. What I'm saying is I don't recall the building in any great detail so therefore I cannot say to you I can recall or not that particular crack.
- 15 Q. All right so you can't really help us because you can't recall seeing it if you did, that's fair isn't it? You can't recall seeing it if in fact you did see it?
 - A. Correct.
- Q. Right. And you've said that there appeared to be a mixture of old and new cracks. Are you talking about on the façade?
 - A. Yes.
 - Q. And what makes you say that they were a mixture of old and new?
 - A. An old crack you can tell because there'd been weathering around the crack. You might even see moss in it if it's really old.
- 25 Q. All right.
 - A. Paint might be flaking near it. If it was new you might expect to see, if it was a new and big you might expect to see some dust or something nearby it or even on the ground.
- Q. Okay and so did you see any of those things in relation to some of thecracks?
 - A. I'm sorry, I honestly can't recall.
 - Q. All right. Well just so we're clear when you say in your brief that you read out that there appeared to be a mixture of old and new cracks?

- A. Mhm.
- Q. Are you going on your memory or on the photographs? Or are you not sure?
- A. I'm not sure, it's probably a bit of both.

5 **JUSTICE COOPER:**

- Q. Mr Harwood you say in the statement that you were in charge of the group doing the north side of –
- A. Yes.
- Q. Riccarton Road, this building's on the south side?
- 10 A. In the morning I was in charge of the, of the group on the north side and in the afternoon I believe it was north and south, as I say Henry wasn't there so we went back and, and did the whole street again.
 - Q. So your allocation of a green card to the building was as a result of your inspection in the afternoon. Is that right?
- 15 A. Yes.
 - Q. But are you telling us that the gentleman called Henry had allocated a green sticker to it in the morning?
 - A. He had not, in effect because he had not allocated yellow or red.
 - Q. Yes, by default it was –
- 20 A. Yes.
 - Q. it was treated as green. All right thank you. Yes Mr Elliott.

CROSS-EXAMINATION: MR ELLIOTT

- Q. Mr Harwood I acknowledge that you were I suppose doing this on a voluntary –
- 25 A. Yes.
- Q. basis and that a rapid inspection is obviously rapid. I'm not seeking to criticise your decision in any way but one of the things the Commission is trying to do is draw lessons out of, out of what has happened and there is a comment in your brief which some lay people might find alarming which is that with the knowledge that you now have after being a volunteer with a lot more post earthquake building assessment you

would almost certainly green card it. Is that because of the particular test that you were applying which was to see if there was any earthquake damage?

- A. Yes.
- 5 Q. And if there wasn't then we'll green placard the building?
 - A. Yes.

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- Q. So in applying a different test you might come to a different decision?
- A. I personally shudder a lot at a lot of the buildings I see in New Zealand.

 There are thousands of unreinforced masonry buildings with high parapets. It is not, and something will have to be done about it, something tangible other than just ignoring it.
 - Q. What about as a suggestion in the post, in a post-earthquake environment just closing all of those unreinforced masonry buildings so that a further full inspection can be taken out rather than placing a green placard on them?
 - A. Do you mean if you consider the events of September, say, and that earthquake in that situation, thinking about it, I mean you've asked a very general thing.
- 20 Q. Yes, well I mean given, given what we've seen happen in September and in February to unreinforced masonry buildings
 - A. No –
 - Q. Given the particular danger posed by parapets, given that unreinforced masonry buildings are likely to have much lower percentage NBS than current code why not just yellow or at least yellow sticker them all after an earthquake so that further detailed inspections can be carried out.
 - A. If, if you had a, a blanket reflex with action like that I don't think you have enough engineers in New Zealand to do the sort of detailed studies required at, at whatever level you put them at, such as, consider this building from a point of bringing up what percent strength is it compared to the Code, I mean that's, we know that's already changed in Christchurch. The percent value has moved which is one of the many parts making up the acceleration (inaudible 10:52:26) from .23 to .3 by

memory. So already that target has moved. I, I think you would, you would close down a city by having sort of blanket reflexes such as that.

CROSS-EXAMINATION: MR LAING - NIL

QUESTIONS FROM COMMISSIONER FENWICK:

- 5 Q. You made the point about the parapet. Now clearly the parapet sustains the highest force, as it's cantilevering up it gives you a high moment, it's likely I would think, looking at that, it actually triggered a lot of the, the collapse which occurred. So that's clearly, you know, the crucial area where one would hope they would get restrained?
- 10 A. Yes.

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- Q. If it had been restrained one might look at that and say, well it might not have collapsed. So perhaps one should say we should be not, we should be avoiding the green card perhaps on buildings which have not had their parapets restrained particularly as perhaps there's a sort of cost implication. They're fairly easy to restrain aren't they in terms of interrupting the building?
- A. That, that could be an approach. Again it is a, a reflex type action which I don't think you could just make a snap judgment on sitting here and now.
- 20 Q. But it might be worthwhile following up?
 - A. It would definitely be worthwhile following up in places like Lichfield Street where the parapets were restrained. Certainly in, they certainly survived in September and those buildings were put back into use in a very short order. I'm not too sure of the state of those buildings following February.

QUESTIONS FROM JUSTICE COOPER AND COMMISSIONER CARTER - NIL

WITNESS EXCUSED

MR ZARIFEH CALLS

DAVID ELLIOTT (AFFIRMED)

- Q. Morning Mr Elliott. Can you give the Commission your full name please?
- 5 A. My name is David Alan Elliott.
 - Q. You might need to move slightly closer, thank you and your occupation?
 - A. I'm a senior structural engineer.
 - Q. Employed by?
 - A. By Aurecon New Zealand yes.
- 10 Q. How long have you been employed in that role?
 - A. Sixteen years.
 - Q. And just give us your brief qualifications?
 - A. I have a BE and an ME degree from Canterbury University.
- Q. Now as you know I want to ask you about inspections you carried out of the building that was at 7 Riccarton Road. Firstly, can you tell us how you came to be involved in inspecting that building?
 - A. I was contacted by Mr North who was –
 - Q. That's Morris North who was the proprietor of the bookshop that was in that building?
- 20 A. Correct.
 - Q. On the ground floor?
 - A. Correct, yep.
 - Q. So contacted at Aurecon?
 - A. Correct, yes.
- 25 Q. Did you know Mr North?
 - A. Yes I do.
 - Q. How did you know Mr North before that?
 - A. I'm a parishioner at the church that he attends.
 - Q. And so how well did you know him?
- 30 A. Not, not, not well at all really. He's the treasurer so I knew that. That's about it really.
 - Q. And what did he want you to do. What did he ask you to do when he contacted you?

- A. He asked me to have another look at the building because it had already been green stickered.
- Q. Right.
- A. And he just wanted a second opinion.
- 5 Q. Okay. So we've just heard from Mr Harwood that he green stickered it on the 6th of September.
 - A. Correct.
 - Q. So that's the Monday following the earthquake on the Saturday. So it must have been sometime on the Monday or very soon after?
- 10 A. I went there on the 7th.
 - Q. You went on the 7th. So you went the next day, the Tuesday?
 - A. Correct.
 - Q. So Mr North must have got hold of you pretty well soon after the building had been green stickered?
- 15 A. Yes.

- Q. And what did he want you to do? You said have another look, was there any specific instruction?
- A. No he just really wanted a second opinion on, on the building before he went back in there because with the green sticker he was entitled to do that.
- Q. Was he concerned about the building, the safety of the building?
- A. I, I didn't get that sense from him. I just felt that he wanted a second opinion.
- Q. And so you went on the 7th?
- 25 A. Correct, ves.
 - Q. Well just tell us about your inspection on the 7th then. What, what did it entail?
 - A. Well I met Mr North there and had a look around the outside of the building and we also walked through the building as well and there's also some buildings at the back that they occupied which I also looked through.
 - Q. So we heard reference even this morning to level 1, level 2 assessments. Were you familiar, familiar with those terms?

- A. Yeah I understood a level 1 to be just an external inspection and a level2 to be an internal and external.
- Q. Okay so would this class as a level 2?
- A. Yes.
- 5 Q. A reasonably detailed external and internal inspection?
 - A. It's really just a walk through. We're not being destructive in any way in, in the investigation we do. So it's just a walk through inspection.
 - Q. And how long do you think you took?
 - A. Overall probably about an hour.
- 10 Q. And in carrying out that inspection do you look at things like plans for the building or look at the council file or anything like that?
 - A. No, not unless the person I'm meeting there might have that information available at the time.
 - Q. Well if they did have it would you look at it?
- 15 A. Definitely if it was available there, yeah.
 - Q. Why would you look at that?
 - A. It just helps you to understand the layout of the building better.
 - Q. So helps you in performing that level 2 assessment?
 - A. Well it would, yeah.
- 20 Q. So is it something that it's a good idea to get when you're doing a level 2 assessment in your opinion?
 - A. It is but for a building of that age it's very unlikely that you'd, you'd find any drawings available.
- Q. What about, you mentioned the council file or I mentioned the council file.
 - A. Mmm.
 - Q. Was that going to be of assistance?

- A. Could be but wasn't required as part of a rapid assessment.
- 30 Q. So when you say 'rapid' you were using one of the Council forms weren't you?
 - A. Correct, yeah.

- Q. And so did you see it as rapid in the sense that he wanted to get back in the building and so wanted a quick inspection to confirm the green sticker there already?
- A. That's my understanding yes.
- 5 Q. Obviously there'd been the big earthquake on the 4th and there'd been, even by the 7th there'd been quite a number of reasonable aftershocks.
 - A. Correct.
 - Q. Is that something you took into account in that inspection?
 - A. Definitely yeah.
- 10 Q. So how did you take that into account? I'm just trying to understand how you took account of those, the aftershocks and likelihood of aftershocks in assessing a building.
 - A. How do I take them into account? I mean they'd already occurred.
 - Q. Yeah and I'm talking more about the likelihood of further aftershocks.
- 15 A. I considered that any further aftershocks were likely to be of a diminishing nature and I took the fact that it had responded very well without any major damage to be a good sign it would survive future aftershocks.
- Q. Where did, as an engineer where did you get your information on the likelihood of aftershocks at that time that day and the days after?
 - A. Oh just from what we were, was available through the media. We had no specific instructions from anybody.
 - Q. Did you take part as a volunteer, as Mr Harwood obviously did.
 - A. Yeah.
- 25 Q. Did you take any part in that?
 - A. No we had a significant number of our staff already involved in that.
 - Q. So you didn't obviously go to any briefings for those volunteers?
 - A. No.
- Q. What about from GNS then. I take it from what you say any information you only got
 - A. No we had nor formal information from GNS.
 - Q. just through the media.
 - A. Correct.

- Q. Did you understand the likelihood, this is from GNS and not necessarily on the 7th but in that period following the 4th of September, did you understand from GNS that there was a likelihood of an aftershock one magnitude less than September?
- 5 A. Yes we understood that.
 - Q. That was reasonably common knowledge amongst the public would you accept?
 - A. Yes.
- Q. So were those kind of factors taken into account by you when youlooked at this building?
 - A. Yeah, yeah, they were.
 - Q. And you would have been in Court and you heard some discussion about the basis of assessments and Mr Smith's comment about perhaps a difference in approach.
- 15 A. Correct.
 - Q. CP Eng Engineers he said, or some anyway, approached a building on the basis well it doesn't appear to have any significant damage compared to what it was like before the earthquake therefore it should be able to withstand what it's already withstood. Is that –
- 20 A. That's correct to a certain extent because you're looking at any diminished capacity.
 - Q. Is that how you approached it?
 - A. Yes.

- Q. So it wasn't necessarily a conclusion, when you came to a conclusion it wasn't necessarily that the building itself could withstand a significant earthquake?
 - A. Can you repeat the question?
 - Q. Well if there was an earthquake that was closer than the September one and of the same magnitude you weren't saying that it could withstand that?
 - A. No, I wasn't aware, I didn't have any information that would suggest that there would be such an earthquake so...

- Q. Do you think that not having a lot of information as an engineer going out and doing inspections in that period do you think that hindered you at all, or you and others?
- A. Well in hindsight it probably did, yes, but I don't even think the scientific community had that information to give us.
- Q. So you used the level 2 form that you talked about and you did an internal and external.
- A. Mhm.
- Q. And you looked in particular at the façade and the parapets.
- 10 A. Yes.

- Q. And you noted cracking on the façade.
- A. Yes
- Q. And was it on that day that you took the photos? I'm right about that aren't I?
- 15 A. Yes on the 7th.
 - Q. Well perhaps we'll get those photos brought up if we could we've just had them up. I'll just get them run through but that's, oh it's just a bit confusing they've got different numbers all over the place but that's a photograph you took of the front of the building?
- 20 A. Correct.
 - Q. And if we go please to 16.2 photo of the façade on that day, correct?
 - A. Yes.
 - Q. You have to answer. And Mr Smith's already pointed out some of the cracking. You agree with the cracking he referred to?
- 25 A. Correct vep.
 - Q. And did the cracking that you saw and that we can see some of it in the photographs, did that give you concern?
 - A. Oh no not really because, like I said, I thought it was pre-existing.
 - Q. What made you think that it was pre-existing?
- 30 A. Well 'cos I could see that there was mould in the cracks and also had Mr North with me who substantiated that the cracks were pre-existing.
 - Q. When you say 'the cracks' are we talking about all of the cracks or some of them?

- A. The majority of them.
- Q. And, maybe you can't answer this, but when you say the majority are you able to use this photograph to say?
- A. I couldn't point to them and say which were pre-existing no.
- 5 Q. But how many cracks do you think you saw in the façade? I appreciate they might not all be seen on that photograph.
 - A. Look I can't recall from memory but obviously the photo's recorded what was there.
- Q. So am I right that the record you make or made at the time is the photograph and the form.
 - A. Yes.
 - Q. So you don't actually draw a diagram and number the cracks or anything like that?
 - A. Not for this building I didn't no.
- 15 Q. Have you done it for other buildings?
 - A. No.

- Q. And you don't count the cracks or attempt any measurement of them?
- A. No, not, no I didn't.
- Q. And, again, it's not some you'd do?
- A. Well I mean you couldn't actually access those cracks for a start but it's not something we would normally do at this level of inspection, no.
 - Q. What level might you do that at? What level of inspection?
 - A. I guess if you were trying to monitor a building over a reasonable length of time then you'd probably do that.
- 25 Q. What I was getting at was you told us what you were doing and what you were asked. What more in-depth inspection would involve that kind of
 - A. I mean there's no point me measuring those cracks 'cos I don't know what they were like beforehand. I know they were pre-existing. I don't know how wide they were. They didn't look like they'd got hugely worse from my observations.
 - Q. And you said that the tenant was there and you also relied on what his observations or comments of what was pre-existing?

- A. Correct yeah, they'd obviously been in the building a long time so knew the building well.
- Q. Okay and when you say the majority can you put any figure on it that the majority were pre-existing?
- 5 A. No. I mean most of the cracks I saw looked to be pre-existing. Like Mr Smith pointed out some of them had probably extended a little bit so but they're probably pre-existing cracks that had extended.
 - Q. Was that your observation on the 7th that some of the pre-existing had extended?
- 10 A. Yeah, maybe slightly, yeah.
 - Q. Did that concern you?
 - A. No.
 - Q. Why not given that we're in an aftershock zone and it's an unreinforced masonry?
- 15 A. There was no instability suggested in the structure at all.
 - Q. And just tell us about that. How do you come to that conclusion?
 - A. Well the parapets were still vertical, there was no obvious sign of distress.

- 20 Q. And this is perhaps my ignorance as I'm not an engineer but how do you, did you establish that the parapets were vertical?
 - A. I made sure that I aligned myself along those frontages.
 - Q. So you used, went to the side and looked at –
 - A. Correct so I've looked at it along the line of the wall.
- 25 Q. Right and what was your conclusion on the verticality of the -
 - A. As I say in my report they were vertical as I couldn't, as near as I could tell.
 - Q. Right. You recorded perhaps if we go to that 0018.1 please. Where you reported under comment cracks above window lintels and near parapets, correct, just in the middle of the right?
 - A. Correct.

- Q. Currently stable, correct?
- A. Yes.

- Q. What's that a reference to?
- A. Well that they're still vertical. There's no distress.
- Q. Right. On the next page .2 looking at the general comment in the middl. You've got over 100 year old brick building warped around exterior and interior, cracks to lintel areas and near parapets. No major lean or distortion, building in very poor state of repair prior to earthquake, correct?
- A. That's what it says yep.
- Q. Well that's your comment that you wrote?
- 10 A. Correct.

- Q. When you say no major lean or distortion, what does that mean? To me that means that there might have been a lean but it wasn't major?
- A. No I think I was just trying to highlight the fact that there was no lean at all.
- 15 Q. So why did you
 - A. So what I'm highlighting is I'd only be concerned if it was a reasonably major lean on it that I could observe so if I could observe a lean I would have considered that to be fairly major but I couldn't.
 - Q. Right I thought that you were saying that it was vertical and there was no lean at all.
 - A. Correct.

- Q. Just wondering why you would put no major lean though?
- A. I'm just emphasising the fact I guess. These are comments written down as you're walking around.
- 25 Q. I understand that but I'm just trying to be clear about it. So it's not a case of there being maybe then a slight lean but nothing to worry about?
 - A. No definitely not.
 - Q. You think no lean at all?
 - A. No lean at all.
- 30 Q. Okay. You probably saw the photograph that was put up that Mr Muller the Cunningham Lindsay loss adjuster took and I accept this is some weeks after your visit. I think it was the 27th of September, so 20 days

- later. I'll get that photo up if you like but you saw that photo where, from the inside where it appeared that the façade had moved out slightly?
- A. Correct.

10

- Q. Well firstly did you see any evidence of that in the interior inspection that you did?
 - A. I don't have any memory of seeing it no.
 - Q. Okay. If it had been there would that have given you any concern given the extent of it or not?
- A. Given the age and state of the building it might have done I don't know. I doubt it though.
 - Q. Point three, top right of the photograph so you can see the pencil or pen being put in there so to mark the width so if you had seen that you can't recall it if you had that wouldn't have given you any concern or any great concern?
- 15 A. No, not overly no.
 - Q. Right. Would that have indicated a possible lean albeit minor?
 - A. It depends where this photo's been taken I guess but it could just be more inaccuracy in the original construction I don't know.

20 **JUSTICE COOPER**:

- Q. Are you saying that the building could have been built so as to have that gap from the outset?
- A. It's possible, it's 100 year old building.

EXAMINATION CONTINUES: MR ZARIFEH

- 25 Q. There is a paint line though isn't there which would seem to indicate that it's moved out since the paint line was put there, wouldn't you agree?
 - A. Yeah but that doesn't look like new damage to me.
- Q. No, no I'm not saying it's new or old but I'm just saying, really asking, I accept you don't recall seeing it but if that had been there just wondering whether that might have led you to conclude that there might have been a bit of a lean but it wasn't a major lean?
 - A. No it obviously didn't lead me to that conclusion.

- Q. So you don't recall seeing anything like that?
- A. No.
- Q. But if you had you still would have green placarded the building?
- A. Correct.
- 5 Q. Thank you. Now the, just going back to one of your photographs from the 7th. The other one that was looked at .8, 0016.8, and you'll remember Mr Smith referring to us that crack on the top there at the western wall?
 - A. Yes.
- 10 Q. I presume you saw that as you took the photograph?
 - A. Correct.
 - Q. What was your, what were your thoughts when you saw that crack?
 - A. It was pre-existing.
 - Q. Why do you say that?
- 15 A. Because there was a mould in the joint and it was fretted.
 - Q. Sorry I didn't hear the last bit there was mould and the?
 - A. And the joint had fretted around the junction of the crack.
 - Q. Right. And could you see that from the ground?
 - A. I could see it reasonably well yeah.
- 20 Q. Right. Well I was going to ask you you didn't get a ladder or have access to a ladder to climb up and look more closely?
 - A. No.
 - Q. Could you tell if the whole of that crack was pre-existing or if it was a pre-existing crack that had extended?
- 25 A. It looked to me like it was all pre-existing.
 - Q. And you heard some discussion already today about that crack and the position of it and the potential danger to the parapet.
 - A. Mhm.
 - Q. That didn't concern you?
- 30 A. It was pre-existing. It had gone through that shake so no it didn't concern me.

- Q. But wouldn't it potentially have been weakened in, when you were in an aftershock zone there was a potential for that parapet to fail if it was already cracked?
- A. Well it had the potential at the September event as well if it was preexisting, but it didn't.
 - Q. Right but it might have been weakened by the significant earthquake in September mightn't it?
 - A. I didn't consider it to be weakened.
 - Q. Because it was -
- 10 A. Pre-existing.

- Q. Right. Well was there any, were there any other observations from the 7th that we should deal with, from your inspection on the 7th?
- A. Not that I'm aware of.
- Q. Okay. So as we know you completed the level two form and gave it the, you've marked G1 the green placard and you took those various photographs of the façade that we've looked at in the out-buildings at the back, correct?
 - A. Yes.
- Q. And I take it if you didn't have a ladder you didn't get up and pull on the parapets to assess their strength?
 - A. No.
 - Q. Have you ever done that?
 - A. I've never personally done that no.
 - Q. But you've heard about it?
- 25 A. No I've never heard of anybody doing that.
 - Q. Really. We heard evidence yesterday from a structural engineer, Mr Seville from Holmes Consulting Group. I think I'm right in saying his evidence was that's a commonly accepted means of testing the stability of a parapet if one's cracked.
- 30 A. I've never heard that I can't comment.
 - Q. All right. And you certainly didn't do it anyway?
 - A. No.

- Q. So that's the 7th. You walk round the inside and outside and inspect what did you say to Mr North then?
- A. That I agreed with the previous assessment that it should remain as green.
- 5 Q. And what did you do with the form that you completed?
 - A. I completed the form and eventually posted it to him after I had carried out that second assessment.
 - Q. Right. Well just dealing with the second one then on the 9th, that's two days later?
- 10 A. Yes.

- Q. Why did you go back to the building two days later?
- A. Because Mr North asked me too because there'd been some more aftershocks. Aftershocks of a reasonable magnitude.
- 15 Q. Right there was one in particular on the 8th I think wasn't there?
 - A. Yeah around a magnitude 5.
 - Q. On the Wednesday morning?
 - A. Yep.
 - Q. Right and tell us about that visit then. What level was that, 1 or 2?
- 20 A. It was really just a level 1 because I only went around the outside. So I was checking those key, key elements.
 - Q. So that was just a walk around the outside?
 - A. Correct.
 - Q. And what, checking the cracks?
- 25 A. Yes to see if they'd got any worse.
 - Q. And had any got any worse?
 - A. Not in my view, no.
 - Q. So what, so no change –
 - A. Correct.
- 30 Q. from the 7^{th} at all?
 - A. Yep.
 - Q. And you completed the form that's, I think it is a level 2 form but as you say it was a level, effectively a level 1.

- A. Technically it was a level 1 assessment.
- Q. And that's 0011.1. So just if you can highlight the comments on the right in the middle please. "Second visit following more aftershocks. Only outside reviewed. No change to assessment made." Page 2 please, point 2. The comments in the middle, "Checked front parapet and west wall. Could not observe much change. Parapet still looks vertical and stable." Have I read that correctly?
- A. Yes.

- Q. So when you say checked front parapet, that's a visual check, correct?
- 10 A. Correct.
 - Q. And the same with the west wall, that's the, presumably the crack we were just talking about?
 - A. Yes.
- Q. When you said there you could not observe much change to me that implies that there may have been some but it wasn't significant to you?
 - A. Yes, it's probably a poor choice of words but effectively I'm saying there was no change.
 - Q. Right so can you remember back to that day. Are you, were you meaning that there hadn't been any significant or there hadn't been any at all?
 - A. Well there hadn't been any at all.
 - Q. Any at all?
 - A. In my view, yeah.
- Q. And so as you say what, just poor use of the word "much." Is it similar to "major" before, just the wrong word?
 - A. Correct.
 - Q. And the cracks in the façade. No extensions at all from that 55.1 or whatever it was on the (inaudible 11:23:14)?
- A. I can't recall the detail but I don't think, I haven't noted it there so I don't believe there was, no.
 - Q. And you said Mr North phoned you and asked you because of the aftershocks. So you went and had a look. I presume from what you've said that would have been a pretty quick look?

- A. Yes, yeah it was only outside.
- Q. Then did you go back to him, Mr North?
- A. Yes, yeah I believe I phoned him and just told him I didn't think there'd been any change so.
- 5 Q. Okay and that form. Did you do anything with that? The one that you've, you've completed?
 - A. When I posted them to him, I posted him both forms together.

JUSTICE COOPER:

- 10 Q. Just, just clarify for me, both forms?
 - A. From the inspection on the 7th and the 9th.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. And did you post them to him with a report, because you did a report didn't you after those visits?
- 15 A. Yes I sent him a covering letter, yes.
 - Q. That is 0012.1. So was this the letter that you would have sent those forms with?
 - A. Yes correct.
 - Q. It's incorrectly dated I think the 6th of September?
- 20 A. Yes.
 - Q. So was that obviously some time after the 9th of September, the second visit?
 - A. I'm assuming it was sent on the 10th, the day after.
 - Q. And you refer to his initial instruction to you in that first paragraph.
- 25 A. Correct.
 - Q. So your instruction you're saying in the third line there was to review and confirm the initial safety status based on your observations of the building. When you say the initial safety status are you referring to what, the initial green placarding?
- 30 A. Correct, yes.
 - Q. And you refer to your visits on the 7th and the 9th. You say Aurecon staff. Was there anyone else with you or just yourself?

- A. I did have a spotter, what we called a spotter, yep.
- Q. What, what's that role?
- A. It's really just somebody to stay outside the building. So that if you're going into any buildings that are considered high risk they'd know where you were.
- Q. Right, but no other engineers?
- A. No.

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- Q. And under negligible damage you say, "We generally found your building to have negligible observable structural damage and we would consider it as occupiable for continuing use as a commercial premise." So when you say negligible observable structural damage, is that a reference to the cracks?
 - A. Correct, yep.
 - Q. Was that the only structural damage that you saw?
- 15 A. Yes.
 - Q. And, again, you might have covered it but negligible because it was preexisting?
 - A. Yes.
- Q. You talked about them cleaning up the building because it was, I think the upstairs was pretty untidy wasn't it?
 - A. It was very untidy, yep.
 - Q. And then you say refer to phase 2 below and I think that's under "Next steps," is it? Is that what's intended? Phase 2? I don't think you actually have a phase 2 but is that a reference to the bottom of that page?
 - A. I believe so, yes.
 - Q. Where it says, "We understand St Christopher's lease the building long term. We recommend strengthening of the building is carried out and we would be happy to advise the owners." Is that the reference to phase 2?
 - A. Correct.
 - Q. So why were you recommending strengthening of the building? Did you think it needed it?

- A. It wasn't because of the damage we observed. It was more because of the age and type of construction of the building.
- Q. Right -

- A. And I also understood that a long-term tenant in the, in the building so it sort of gave Mr North something in writing that he could take to the owner.
- Q. Right and what, you're saying it wasn't related to the damage that you'd observed?
- A. Correct, yeah.
- 10 Q. What were you envisaging then in terms of strengthening?
 - A. In the long term?
 - Q. Yeah, well what kind of term were you talking about there?
 - A. Yeah I was thinking long term because if that's how long, they were likely to be in the building for a reasonable length of time.
- 15 Q. Okay.
 - A. So that's what I was thinking at that stage.

JUSTICE COOPER:

- Q. What was your understanding of the length of the occupancy rights?
- 20 A. Sorry can you repeat the question?
 - Q. What was your understanding of the length of the occupancy rights that St Christopher's had?
 - A. I believed they'd been in there for some time and they were likely to be staying in there.
- 25 Q. Yes but for what period?
 - A. I didn't have a particular period in mind but it seemed like they were quite comfortable with the building and they were going to be there for the duration.
- Q. Well Mr Elliott did you understand that they had long-term occupancy rights or not?
 - A. I didn't know the details of their lease but this was just based on discussions with Mr North while we were on site.

- Q. For all you knew they might have had six months in the building. Is that what you're saying?
- A. That's not how I understood it.
- Q. So what did you understand?
- 5 A. That they had potential to be there on an ongoing basis but not, not as short as six months, no. Likely to be years not just, just the year.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. But you weren't aware of the length of the lease agreement?
- A. No, no.
- 10 Q. So was that more Mr North wanting to be there long term and you putting that paragraph in to assist him with what, negotiations with the landlord?
 - A. Correct, yes.
- Q. So nothing to do with the view you took of the building in terms of itneeding strengthening?
 - A. No.
 - Q. It seems a bit odd that as an engineer you would put a recommendation for a building to be strengthened just to help the tenant when you didn't actually think it needed I?
- 20 A. I didn't say I didn't think it needed it.

- Q. Well I thought you said you weren't doing it because you thought it needed strengthening you were just trying to help him with his lease negotiations.
- 25 A. It didn't need strengthening because of the damage occurred after the earthquake but it was potentially an earthquake-prone building by the material and age, by the material and construction of the building and the age of it. So I knew that much.
- Q. And you would have known when you looked at the building on the first occasion, wouldn't you, even before you saw the cracks, that it was likely to be earthquake-prone?
 - A. Potentially.

- Q. And what about once you saw the state it was in and the cracking?
- A. I was actually genuinely surprised at how well it had performed.
- Q. We've heard that it had no structural strengthening in the past. Would you be able to confirm that from your internal inspection or not?
- 5 A. I didn't know, no.
 - Q. Is that something you could have found out if you looked at Council records and the like?
 - A. I guess, yeah, if it had been consented.
- Q. Do you talk to the owner of a building in a situation like this or when
 you're doing a level 2 inspection. Someone who might have some knowledge of the history.
 - A. No, our engagement was with the tenant. Had no reason to talk to the owner, in fact I was led to believe that he wasn't even resident in New Zealand so...
- 15 Q. All right and in the middle, just above that paragraph observations, structural integrity observations, brick cracking, cracks in bricks over windows and in the north façade that's a reference to what you've already covered in those reports, correct?
 - A. Yes.
- 20 Q. And you say "The building is over 100 years old and has not been well maintained. Some damage observed may have been existing before the event."
 - A. Right.
- Q. Now why did you write 'some damage observed may have been existingbefore the event'?
 - A. Well we believed it to be pre-existing damage.
 - Q. So, again, can we get any idea of what was pre-existing and what was post the event?
 - A. I understood most of it to be pre-existing, that was my belief.
- 30 Q. Right.
 - A. But you can't, I mean if a crack widens by half a millimetre you can't observe that.

- Q. Right, what I'm getting at is you have written there 'Some damage observed. May have been existing before the event'. The event's September, right, earthquake?
- A. Correct.
- 5 Q. So it seems to me that you, correct me if I'm wrong, but you are saying that some of the damage you observed 'may' have been existing before the event.
 - A. That's right.
 - Q. So not all of the damage?
- 10 A. Well, again, you're playing with words but my -
 - Q. Well they're your words and I'm just trying to understand them.
 - A. Yep, well we believed it was pre-existing so that's what we're stating there.
- Q. Right so, just so we're clear, are you saying that you believe all of the
 damage and the damage is the cracks we've established all of the cracks were pre-existing?
 - A. Correct.
 - Q. So, again, why didn't you write 'all of the damage is' –
- A. Because 'all' implies there was no damage at all and you can't be that certain can you so you've gotta, you're sort of limited in some way I guess.
 - Q. But why didn't you write all of the observable damage, we believe all of the observable damage was pre-existing the event?
 - A. Well I could have equally written that.
- 25 Q. Is that what you meant?
 - A. Correct.
 - Q. Well why do you think you wouldn't have written that then because there seems to be a difference between the two doesn't there?
 - A. I don't think so.
- 30 Q. Well one is implying that there is some new damage but there's some old damage and the other is implying yes there's damage but none of it's new.

- A. Ah, no it's not. I mean we're saying that it was pre-existing damage and it was backed up in the forms that I gave them as well, the rapid assessment forms.
- Q. Right but this is your report to the tenant who's instructed you isn't it?
- 5 A. Yes.
 - Q. And don't you want to put his mind at ease and tell him that he doesn't need to worry about the cracks that are there because they're all preexisting?
 - A. Well he knew they were pre-existing because we discussed it on site.
- 10 Q. Why not put it in your written report then?
 - A. Well it's probably just an oversight, I don't know.
 - Q. But you're sure -
 - A. It was covered in those rapid assessments, it's covered on site.
- Q. So you're sure that that's what you did actually mean and what you didactually observe at the time?
 - A. Yes, yeah.

30

- Q. And that letter you said accompanied the two reports doesn't refer to any note of costs or anything. Were you charging Mr North or not?
- A. Yes, yes, he was invoiced.

20 COMMISSION ADJOURNS: 11.35 AM

COMMISSION RESUMES: 11.53 AM

EXAMINATION CONTINUES: MR ZARIFEH

Q. Mr Elliott, we were talking about the letter of, dated 6 September that enclosed your two reports and the language that was used in them. Now I took you through the language in all of them and it seems that on each document there are words that you're saying in hindsight you shouldn't've used, would you accept that? Talking about the "no major lean", you said the "major" shouldn't have been there. "Could not observe much change", the "much" shouldn't've been there. And "some damage observed may have been existing before", the word "some".

- Were they all unintentional misuses of those words or do they reflect perhaps how you saw events then rather than your reconstruction now?
- A. No I think they're just misuse of the words. I was quite clear on my thoughts at the time.
- 5 Q. So you can recall the visits, the two visits and the observations now. You're not relying on the notes that you made at the time?
 - A. Correct.
 - Q. And your independent recollection which is obviously in those regards contrary to what you've written down, you say is correct?
- 10 A. Yes.
 - Q. All right so you sent that letter to Mr North?
 - A. Yes.
 - Q. And that essentially said that in your view he was fine to be in there operating his business?
- 15 A. Correct.
 - Q. And presumably it also meant that you were happy that in any aftershock the building would be all right in terms of safety?
 - A. Correct yeah.
- Q. When you you told us that Mr North talked to you about cracks, and the cracks, was that the ones on the façade that you saw?
 - A. We're talking about along the west wall as well. It wasn't just on the front façade.
 - Q. Right so did he accompany you around on the tour?
 - A. The whole, whole time he was with me yes.
- 25 Q. Okay.
 - A. Yeah.
 - Q. And so what when you saw a crack did you actually stop and talk to him?
 - A. Correct, yeah.
- 30 Q. And so is that why as well you can say all cracks?
 - A. Correct, yes.
 - Q. What so you covered each crack with him and whether it was there before?

- A. I can't say that we pointed at every crack and said, "Was that there, was that there," I don't think that would be the extent of even Mr Maurice's memory but we certainly talked about cracks in general —
- Q. Right but any -
- 5 A. and I know specifically that one on the western wall we looked at in detail.
 - Q. Right but any crack that you noticed and obviously were concerned enough to notice you discussed?
 - A. Yes.
- 10 Q. So that's on the 9th your last visit and you send off your letter and then what's the next thing you, you hear from, from Mr North?
 - A. Mr North contacted me to tell me that the building had a yellow sticker.
 - Q. Right and we know that that was on the 11th so that's two days after your last inspection?
- 15 A. Correct.

- Q. And what did Mr North tell you?
- A. Oh he just said it had a yellow sticker. I can't recall whether he told me the detail of what was on that sticker.
- Q. Right, were you surprised that this building that you'd just inspected had been yellowed?
 - A. Yes, yes I was yeah.
 - Q. Right and did you ask him why, or if he knew why?
 - A. Yes, yeah I'm sure I did.
 - Q. What did he tell you?
- 25 A. Well I'm sure he told me what was written on the, on the sticker.
 - Q. Okay concern with cracks in the façade?
 - A. Yes.
 - Q. And what's your recollection of Mr North's view. Was he concerned about the building?
- 30 A. Well obviously he wanted to know what to do next.
 - Q. Right in relation to what?
 - A. In terms of getting access to the building. It was obviously no he couldn't go in the building.

- Q. So he wanted to see if he could get the yellow sticker removed?
- A. Correct.
- Q. Right and –
- A. Or at least have another look at it to see why they would have put that on there.
 - Q. Okay, well did he ask you what could we do or "what can I do?"?
 - A. Yes.

- Q. Did he seemed concerned about the building itself whether it was safe or not?
- 10 A. Not, not really. I mean I asked him I'm pretty sure I asked him, "Has it got any worse?" and he didn't seem to think it had because it was only two days later so I was a bit surprised.
 - Q. Right. How was he when he spoke to you and asked you to look at it again on the 9th? How was he about the building, was he concerned?
- 15 A. I don't really recall specifically but concerned enough to want us to have a look at it.
 - Q. Right.

JUSTICE COOPER ADDRESSES COUNSEL - DATE

- Q. Yes the second inspection when you, you'd looked at it on the 7th you'd told him you thought the green was fine and then some time on the 9th was it or 8th that he asked you to have another look? The reason you went back on the 9th?
 - A. After the 7th, yes.
 - Q. After the 7th sorry, yeah?
- 25 A. Correct.
 - Q. You looked at it at 1.00 pm on the 9th on your form?
 - A. Mhm.
 - Q. So did he, he must have called you on the 9th presumably and said, "Can you have another look"?
- 30 A. The 8th or the 9th yeah.
 - Q. Right and my question is was he concerned about the building then and whether it was safe because of the aftershocks?

- A. Oh I think because of the, the size of those aftershocks he said he wanted to have another look.
- Q. Right and were you aware that Mr North had rung the Council on the 8th?
- 5 A. I don't think I was aware of that no.
 - Q. I'll just get you to have a look at a document which is 0019.1.

WITNESS REFERRED TO DOCUMENT 0019.1

- Q. And I'll just get the piece in red under "RFS details" enlarged just a third of the way down please. Now this form followed on from another form that was recorded by a, someone at the Emergency Operations Centre and this page that you're looking at, well it does record Mr North's name in fact down the bottom under event details, where it says, "Mr North has requested a further inspection after Wednesday 'quake", okay. So it seems not only was he ringing you but he was ringing the Council around that time?
 - A. It appears that way yes.
- Q. And just look at what he said there or what's recorded as he's saying, "Brick and concrete façade badly cracked, caller concerned it could fall down on pedestrians. Structural engineer says with another significant tremor it could come down. Will require another Council check since yesterday's check which was given a green notice status". Okay, now I appreciate that you're not part of that conversation but if that's what Mr North said to the Council and obviously we'll hear from Mr North but that's what's recorded, firstly that would imply that Mr North was concerned about the façade being badly cracked? Wouldn't it?
 - A. It would appear that way yep.

- Q. Is that, that appears to be inconsistent with the attitude he seemed to have with you?
- 30 A. Correct. It's not the opinion I got talking to him.
 - Q. And do you think that you could have got the wrong impression, that he was concerned and you can't recall that now or –

- A. Well I know he was concerned about having a second opinion on the building but I didn't know he had concerns about specifically the cracking when it was pre-existing.
- Q. Well wouldn't the fact that he even rang the Council when he's instructed you and you've been there already show some reasonably high degree of concern too wouldn't it?
- A. Well it would have but I didn't know about his call to the Council.
- Q. No but I'm just asking you to comment on the evidence you've given of his attitude and how it appeared to you. So he's concerned that the façade could fall or the brick and concrete. "Structural engineer says with another significant tremor it could come down". Now I appreciate it doesn't say who the structural engineer is but had you said anything like that to him?
- A. No definitely not.

10

- 15 Q. Had you said anything about the fact that the building was an unreinforced masonry and in poor condition and what might happen to it if there was a significant tremor?
 - A. I don't think we discussed that, no.
 - Q. Would you agree with me that a building like that could well collapse in a significant earthquake?
 - A. Well clearly 'cos it did.
 - Q. Well that proves the point but even something less significant than we experienced in February given the nature of the building.
 - A. Well it wasn't my view at the time that it would, no.
- 25 Q. So you can't explain, or it wasn't you anyway if that's who he's referring to?
 - A. I don't believe so. I never had that kind of conversation with him.
- Q. In the event details that's highlighted below that, it's got the name wrong I think of your firm mis-spelt but that would be consistent with you having evaluated the building and advising it was suitable for occupation, correct?
 - A. Correct yeah.

- Q. And it says the engineers have advised that structural strengthening required in the future. That presumably is a reference to the report the tenant's going to forward, correct?
- A. Yes, I presume this must be after I'd sent the report to Mr North.

JUSTICE COOPER:

I was going to ask that Mr Zarifeh, would the form as a whole is one that is compiled on different dates, do we know that?

10 **MR ZARIFEH**:

Yes that's the problem with it, I think that's correct. So you're right Your Honour and Mr Elliott's right as well. I can't tell you the exact date of that and I don't know if the Council can either.

15 **JUSTICE COOPER**:

So that the second highlighted passage, event details, would be consistent with the written report that was written on the 10th or thereafter.

MR ZARIFEH:

Yes sir it would and, in fact, there is a reference to the 10th below that. It's not highlighted but just below that highlighted part.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. So just on that point, the piece that's in yellow, that's perhaps misstating what you were saying in your report according to your evidence. You weren't advising that it was required you were just putting that in to help him out.
 - A. Correct yeah.

- Q. So is that wrong then. It's not something that you were saying would be required?
 - A. I don't know what his discussion was with him at that time but he must have had my report when he had that discussion.

- Q. Well were you not recommending that structural strengthening should be done in the future?
- A. At some point, yeah.
- Q. Because of the nature of the building.
- 5 A. Because of the nature.
 - Q. And the damage that it obviously had, leaving aside how it happened.
 - A. Correct.
 - Q. All right, so going back to Mr North, he says to you it's been yellow stickered, what can I do or can you come and have another look at it?
- 10 A. Correct.

- Q. Were you aware that he was corresponding with the Council asking them what he could do about the fact it had been yellow placarded?
- A. I think I was after my third visit. Because when I went back and had another look and thought there really hadn't been any change to my previous inspections we discussed what to do next and I said I didn't know the process for getting the placard changed. You'd have to talk to the Council about it.
- Q. Okay well let's just deal with that third visit then that led to the events to change the placard, so when was that?
- 20 A. As I stated in my evidence I thought it was round about the 17th from when I was doing other inspections along Riccarton Road.
 - Q. So it's yellow placarded on the 11th and you think about six days later.
 - A. I was busy.
- Q. No I'm not criticising it I'm just saying about six days later that you got to have a look at 7 Riccarton Road.
 - A. Yes.
 - Q. And did you take Mr North with you or not?
 - A. Not on that visit I don't recall no.
 - Q. If it was yellow placarded it would have been closed.
- 30 A. Yes.
 - Q. And did you conduct an internal and external examination or just external?
 - A. No again it was just external view.

- Q. And you would have seen what was on the yellow placard, would you not, what was written on it?
- A. I presume so, I can't recall reading it.
- Q. Right but I think you said before that you were aware of cracking in the façade being the concern?
 - A. Yes.

- Q. And that either came from Mr North or what was on the yellow placard.
- A. Correct, yep.
- Q. And so you would have known that someone, and you wouldn't know whether it was a C PEng engineer or otherwise, but someone who had done an inspection was concerned about the cracking?
 - A. Correct. They obviously had a different opinion about it, yep.
 - Q. So did that fact that someone, and I presume you might well have thought that it was an engineer?
- 15 A. I couldn't know that.
 - Q. And did you find out?
 - A. No, I had no reason to. I mean it was a yellow sticker. We had to respond to it.
- Q. But what I'm getting at is that you know it's been yellow placarded and someone's got a different opinion to you on the damage that's there.

 Did you not think well I'd better proceed cautiously?
 - A. Well that's why I went back and had another look at the building.
 - Q. Well if you didn't go back you couldn't have done anything about it could you?
- 25 A. Well I did go back.

- Q. Right and you went back to see if they were right they were wrong and you were right, essentially?
- A. Well to see if this cracking had got any worse because that would be the only way I could explain that they'd make it a yellow sticker and I didn't, in my opinion, it hadn't got worse.
- Q. Okay, and you could have gone inside, the yellow sticker prevented occupation but not entry for things like inspection or remedial work did it?

- A. Correct, yeah, we could have gone inside.
- Q. Why didn't you go inside?
- A. Largely because the cracks were visible from external and actually not so visible from the interior so you could see what you needed to from the outside.
- Q. What if the façade had moved away from the inside and it hadn't before when you'd been on the 7th and the 9th as a result of an aftershock?
- A. I would have expected to have been able to have seen that from the outside.
- 10 Q. You would have expected it, right. Well you heard Mr Smith say that he thought that at least a level or a level 2, which was internal and external, should be done before changing a placard down from yellow to green. What's your comment about that?
- A. I think that's fair comment. I'd already been through and done a level 2
 though previously and there was no change to the building that I could see.
 - Q. But your level 2 was the initial one wasn't it?
 - A. The first inspection I did yes.
- Q. And aren't you going back the second time because there's been asignificant aftershock or aftershocks?
 - A. I'm going back the second time yes, correct. You're talking about the 9th of September now.

- Q. Yes.
- 25 A. Yes.
 - Q. And then you're going back on the 17th because someone else has been and formed the view that it should be a yellow placard because of the damage?
 - A. That's right yes.
- 30 Q. Do you not accept it would have been better to go in and look inside as well as outside?
 - A. I don't believe it would have changed my opinion of the building.
 - Q. How do you know that if you didn't go in though?

- A. Because I couldn't see anything on the outside that would have led me to be concerned in any way.
- Q. Right. Why did you go on the inside on the first occasion?
- A. Because we had the access with Mr North.
- 5 Q. So it was an access issue?
 - A. To a degree I guess, yeah.
 - Q. But Mr North could have given you the keys for the 17th visit couldn't he?
 - A. Certainly I could have gone back to him and asked to have a look through the inside if I thought it was necessary.
 - Q. But you did think it was necessary on the 7th to do that level two?
 - A. Correct, because it was the first time I'd seen the building.
 - Q. Were you aware that the council, I don't know if it's policy but the council advice was a level two if there's to be a change down in placard?
- 15 A. No I wasn't aware of that policy but I was advised later by Mr North.
 - Q. Because I think he had an email from the council?
 - A. He had been in touch, contact with the council yes.
 - Q. But he didn't pass that on to you is that what you're saying prior to –
 - A. I think he did but I told him we've already done a level two.
- 20 Q. Hold on let's just be clear of that. So prior to you going on the 17th or thereabouts Mr North told you that he's been in contact with the council and they said that a level two is required?
 - A. No I think that was following my visit, my last, third visit.
 - Q. Right.

- 25 A. So I didn't know a level two was required until after I'd been.
 - Q. So how long after did he tell you that?
 - A. I think it was probably during our conversation when I told him I didn't think there was any change and I couldn't see why there was any reason for the yellow, yellow placard.
- 30 Q. Right. So was that the day of the inspection?
 - A. It would have been on thereabouts I would imagine.
 - Q. Or soon after?
 - A. Yeah.

- Q. And that's when he tells you well I got an email from the council or something like that saying that they require a level two to change it, correct?
- A. Correct yep.
- 5 Q. Well presuming from what you said you knew that you hadn't done a level two?
 - A. Well I had done a level two.
 - Q. On the 17^{th} ?
 - A. Not on the 17th on the 7th.
- 10 Q. But surely the council are not talking about a level two that's done prior to the yellow placard. What would the point of that be?
 - A. No reason but I didn't think a level two was required as to my external inspection and the fact that I'd been there twice before and seen really no change.
- 15 Q. I understand that but my point is that the council told Mr North that to change a yellow placard to a green they require a level two assessment, right, and that's to change it because it had been for whatever reason been made yellow.
 - A. Mmhmm.
- 20 Q. Surely that means that the level two assessment has to be done after the point in time when the building is placarded yellow for whatever reason?
 - A. Yeah and that stands to reason. Like I say I didn't think it was warranted because I'd been inside the building and –
- 25 Q. On the 7th.
 - A. and there was no change on the 17th when I went back.
 - Q. Right. And you have no way of knowing if there was any change, had been any change internally because you didn't go back?
- A. I can't be certain no but I would be confident from what I saw on the outside that there was no change.
 - Q. Well when Mr North told you that the council had said that was a requirement why didn't you take the keys from him and go and do a level two?

- A. Because like I said we'd already done it. I felt there was no change to the building.
- Q. But you could have done it?
- A. Could have done it. There was nothing preventing me from doing it no.
- 5 Q. Alright. Well so subsequently you completed the CPEng certification for the council?
 - A. Mmhmm.
 - Q. So when you did that, I'll come to that in a minute, but when you did that you knew that the council requirement was a level two inspection to get the yellow placard changed, correct?
 - A. Correct.

- Q. Did you tell the council that you hadn't actually done a level two?
- A. I, that level two had been sent in to the council by Mr North.
- Q. Did you tell the council that you hadn't done a level two subsequent tothe building being yellow placarded?
 - A. I don't think I told them specifically that no.
 - Q. Right why did you not tell them that if you had been told by Mr North that it was a council requirement?
- A. Because like I said we'd already done the level two and I didn't think it was necessary to go inside again at that time and there had really been no significant events around that time either that we signed it off.
 - Q. What no significant aftershocks?
 - A. Correct.
 - Q. Can you recall that because weren't there aftershocks every day?
- 25 A. Not significant ones.
 - Q. Right so was that part of your thinking or you're just saying that?
 - A. Yeah of course.
 - Q. Were you actually taking that into account?
 - A. Yes, yeah.
- 30 Q. What as a reason not to do a level two?
 - A. As a reason not to do a level two yeah.
 - Q. Okay so just so we're clear, Mr North tells you after you visit on the 17th that the council requires a level two and you think to yourself well I

haven't done that but I did one on the 7th and externally didn't look like any change and I know there haven't been any significant aftershocks?

- A. That's correct.
- Q. What was significant then in your mind? What level?
- 5 A. Probably something over five.
 - Q. So there were no fives between the 7th and the 17th?
 - A. I can't categorically state that but I -
 - Q. Well how do you know there weren't?
- A. There may well have been but none as many as there had been up until the 9th. There was quite a flurry of them up until around about the 9th that I recall.
 - Q. Right. So is this, is this language thing you said there was not as many as there had been. Are you aware whether there were or any or not over time?
- 15 A. There was some.
 - Q. So there was some between the 7th and the 17th?
 - A. Yes, I believe so yes. I'd have to check it.
 - Q. Over five?
 - A. Yes.
- 20 Q. Well hadn't there been one on the 8th?
 - A. Yes.
 - Q. Wasn't that the reason that you went in on the 9th, you went round there on the 9th?
- A. I went back on the 9th because there was more aftershocks but there was no change to the building.
 - Q. From the outside?
 - A. Correct.
- Q. I thought you said a moment ago that the reason you didn't, one of the reasons you didn't go inside and do the level two even after you were told us it was a requirement was because there hadn't been any significant aftershocks over five in that period between the 7th and the 17th?
 - A. And there was no major change that I could see to the building.

- Q. Right. So there had been some significant aftershocks. That wasn't a reason. That was more the external observation?
- A. Correct.

- Q. Okay. But you didn't tell the council that when going through this process to get the sticker changed?
 - A. I didn't know the process specifically.
 - Q. No but you knew -
 - A. It was being dealt with by Mr North direct with the council.
- Q. Right. But you told us that Mr North told you that the council said theyrequired a level two?
 - A. Yes.
 - Q. What I'm saying is why didn't you say to the council look I haven't done a level two since that was yellow placarded but it looked all right from the outside when I got down there?
- 15 A. Well effectively in the CPEng certification I told them the reason for my signing it off that there was no damage to the building.
 - Q. Right. My question is when you knew that level two was a requirement because Mr North had told you and this is before you're dealing with the certification, why didn't you tell the council that you hadn't actually done what you understood was their requirement?
 - A. I had done the level two. I appreciate it was before the yellow placard but there was no change to the building that I could see that would warrant going inside the building. I don't think that would have changed my view of the building.
- Q. Do you not agree with me though that as a matter of common sense if a building's been yellow placarded the council requirement for a level two to change it would be that the level two was done after that point in time. There wouldn't be any point in it otherwise.
 - A. That's probably sensible.
- 30 Q. Well there wouldn't be any point otherwise would there?
 - A. If there'd been changes to the building I can see the point in doing that but if there's no change.
 - Q. Or if significant aftershocks which there had been?

- A. But there's no change to the building that I saw.
- Q. So isn't the council saying by that requirement for a level two that what they're wanting is a pretty reasonable or reasonably detailed inspection before it should be downgraded –

- A. I mean the level 2 is still a rapid walk-in, walk-out inspection which we, is not implying detailed as you just said.
- Q. Well it's not even a level 2 if you don't go in though is it?
- A. No, correct.
- 10 Q. Right but isn't the council saying that, that that's what they want. It doesn't matter what you call it. They want a reasonably detailed or close inspection both internal and external to change something from yellow to green because of the public safety risk.
 - A. Correct.
- 15 Q. Because green meant Mr North could go in there and members of the public could go in and out.
 - A. Yeah.
 - Q. Yellow meant they couldn't until strengthening or the appropriate work had been done. That's the reason isn't it?
- 20 A. I presume so, yeah.
 - Q. So when you went to do this CPEng certification you were sent something from the council, from a Laura Bronner weren't you?
 - A. Correct.
 - Q. And she wasn't an engineer was she?
- 25 A. I don't know what her qualifications were.
 - Q. You don't know. I think we'll hear from the council. I think she was just an office worker but you had some discussions with her?
 - A. About the appropriateness of the forms, yes.
 - Q. Yes.
- 30 A. Yeah.
 - Q. And we can look at the, we've got the emails that were sent. I'll just get you to quickly refer to them.

WITNESS REFERRED TO EMAILS

- Q. If we look firstly at 0028.2. So this is from this Laura Bronner, "Hi David," that's you, "Please send the attached documentation regarding the CPEng certification the council requires to change a building status from yellow to green. If you could return page 4 to us at your earliest convenience it would be greatly appreciated." Okay?
- A. Yes.

15

- Q. And if we look at 0028.2. Sorry, no let's firstly look at 0010.21 and I think you were sent two things from the council from Laura Bronner and do you see that first page that we're looking at?
- 10 A. Yes.
 - Q. And it contained an excerpt from s 121 of the Building Act. Correct?
 - A. Yes
 - Q. And if you look at, sorry if you look at the paragraph above that, it was telling you what the council would accept for satisfactory occupancy. Do you recall receiving that?
 - A. I don't recall specifically receiving it, no but obviously I must have because it's on the emails.
 - Q. Well your certification was the CPEng form, printed form?
 - A. Yep.
- 20 Q. As signed and I think modified by you after talking to her?
 - A. Yes.
 - Q. It says there, this is talking about accepting that a building is satisfactory for occupancy, at the bottom there, "The certification should be accompanied with a structural engineering assessment that includes what damage has occurred to the building." In relation to that you'd say, well, you didn't believe there was any?
 - A. Correct.
- Q. Is that what you're saying? What repairs, if any, had been made and as you say there hadn't been any. The basis of ascertaining the building is not dangerous in terms of the Building Act and photos of the building that show the general structural condition of the building. So you'd taken photos on the 7th not the 17th though had you?
 - A. No I don't believe so.

- Q. You didn't send any photos in or any other, any detailed report?
- A. No.
- Q. So am I correct in saying that the only report that you completed apart from the two forms, 7th and 9th, was the letter to Mr North?
- 5 A. Correct, yes.
 - Q. And on the 17th of September, on that visit you didn't complete a report to Mr North or anyone else?
 - A. We don't have any records of one, no.
- Q. No but from what you've said you were just going to check from the external whether it was different?
 - A. Correct.
- Q. Okay well I referred you to that email sorry. I don't think that came with that email but I just want to go back to 0010.27 and you recall that email I referred you to from Laura Bonner said, if you turn to page 4, I just want to show you those four pages, .27. Okay that's the first page. Do you remember seeing that?
 - A. I don't recall seeing it.
 - Q. Okay just turn to the next page please. Don't recall that?
 - A. Not specifically.
- 20 Q. The next page and the same with that?
 - A. Correct.
 - Q. And the next page, now that's the page 4. Do you remember that page?
 - A. Yes.
 - Q. Right and is that the form that you returned to her eventually?
- 25 A. Modified form of that.
 - Q. Modified.
 - A. Yeah.
 - Q. That's the, was the blank form you started with?
 - A. Correct.
- 30 Q. Okay, if you just go back to .27 please. So do you remember reading this form or this, these documents and the form?
 - A. No I don't.
 - Q. Would you have done?

- A. I, I guess I would have done. They were sent to me.
- Q. Right. If you look at that page where it says, "Options for owners to resume occupancy and use." It's talking about option 1 and option 2, correct?
- 5 A. Yes.
 - Q. Both of which require strengthening?
 - A. Option 1 says interim securing not strengthening.
 - Q. Securing, sorry, followed by strengthening?
 - A. Yes.
- 10 Q. And option 2 strengthening?
 - A. Correct.
 - Q. Correct?
 - A. Yep.
- Q. And if you look over at .28, para 2, "Buildings with," I think it had red there, or yellow anyway, "yellow safety notices," and, again, there's option 1 and option 2. Option 1, "Where the integrity of the building or part of the building was materially affected by the Darfield earthquake or aftershocks, interim securing measures." Option 2 was the 67% securing that had come in then as a recommendation. So when you got these, this documentation in that form on the 4th page I think you presumably read it or read the form at least because you raised a query didn't you. If we look at 0028.1 for your email back to Ms Bronner, 0028.1 and at the bottom there and highlighted that's your email of 26 October to her?
- 25 A. Yes.

- Q. And it says, "My reading of the attached document is that I am signing off securing work that has been carried out to the building. However, no securing work has been carried out to this building. The building had not (at my last inspection) sustained any significant structural damage that required repairs prior to occupation. Is this form relevant for me to be completing?" So that's the query you're raising?
- A. I presume so yes, yeah.

- Q. Well that's what you sent isn't it?
- A. Correct.
- Q. And if you if we go back to the complete document, just the whole page sorry, the same page but just the whole page. You'll see that you've got another email to her at 5th of November, see the top?
- A. Yes.

- Q. And you say, "Hi Laura, further to our conversation. Please find attached the signed form," correct?
- A. Yes.
- 10 Q. And that's the modified signed CPEng form, that page 4, correct?
 - A. Yes
 - Q. And so between the 26th of October and the 5th of November what happened?
 - A. Well I didn't have a response from that email so I presumed I'd spoken to her instead.
 - Q. And can you recall what you spoke to her about?
 - A. About the appropriateness of the forms that I was she was asking me to sign.
 - Q. Right.
- 20 A. Because I didn't see that they were relevant to this building as it was undamaged.
 - Q. As per your email.
 - A. Correct.
 - Q. And what did she say to you?
- A. To modify the forms as I saw fit. I just wanted to make sure that she was happy for me to do that if that's what she wanted.
 - Q. So she told you modify them as you saw fit?
 - A. Correct.
- Q. And you did that. You sent in the form and we know a few days later after that 5th of November email that the placard was changed to green by the council, correct?
 - A. Correct, yeah.

- Q. So apart from the email correspondence around 26 October, and obviously a conversation at some stage prior to that email on the 5th of November, is that all the contact you had with the council?
- A. Pretty much, yeah.
- 5 Q. What does pretty much mean?
 - A. Well that is all the prior to that it was only Morris North contacting the council.
 - Q. Yes, I talking about yourself. So that was, it was directly with Laura Bronner only?
- 10 A. Correct.
 - Q. Okay, and did she ask you anything about the building, your inspections, the level of them, anything like that?
 - A. I don't recall in the conversation, but ...
 - Q. Well think about that -
- 15 A. I'm pretty sure I would have said to her that you know the building is undamaged and it's clear in the documentation I signed that I've said that.
 - Q. You'd said that in the email.
 - A. And in the form that there was no damage.
- 20 Q. Right. You never told her that you hadn't done the level 2 that we talked about?
 - A. I don't recall it if I did. She wasn't talking about a level 2, though were talking about different forms now.
- Q. When you talked about your last inspection at the bottom of that page you didn't tell her what that entailed or didn't entail did you?
 - A. I wasn't specific in that email, no.
 - Q. And did she ever say to you, "Look I'll get you to talk to an engineer from the council"?
 - A. No.
- 30 Q. So no engineer contacted you and said I want to talk about the building and about your inspections and what you found?
 - A. No.
 - Q. No.

- A. And I did kind of expect it.
- Q. Why do you say that, why did you expect it?
- A. Because I thought there'd need to be some discussion with the engineer who'd made it yellow, because there was obviously a difference in opinion.
- Q. So what, because it was a big step?
- A. To go back to green, yes.
- Q. Yes.

- A. Yeah obviously.
- 10 Q. So did you consider it a big step to go from yellow to green?
 - A. Yes, yeah.
 - Q. And yet you didn't go back and do the level 2 when you found out that was a requirement?
 - A. Well as I've said to you, that the external inspection I made showed no additional damage so I didn't warrant going and looking internally.
 - Q. And yet you were expecting an engineer from the council to perhaps contact you and discuss it?
 - A. I thought that might be an outcome of filling out these forms.
 - Q. What, because of the way you modified it?
- 20 A. Correct, yeah.
 - Q. But she never said to you that's what will happen or arranged anything?
 - A. No.
 - Q. No.
 - A. I didn't know the processes that the council needed to go through.
- 25 Q. Did you not think of saying, asking her to put you onto an engineer to speak to someone who you could talk to about it?
 - A. I didn't know that she wasn't an engineer.
 - Q. Well do you talk about the structural matters relating to the building with her?
- 30 A. Not specific details I don't believe, no.
 - Q. So she there was nothing she said that would have given you the impression she was an engineer is there?
 - A. No.

- Q. And had you had any contact with her before that 26 October email and what followed?
- A. I don't believe so.
- Q. So you didn't know her at all?
- 5 A. No, no.
 - Q. And when you altered the CPEng documentation which I'll just get pulled up, it's 0028.3. That's the form that you altered?
 - A. Yes.
- Q. And where you put, 'none undertaken' in terms of measures to secure or
 strengthen the building the top there?
 - A. Yes.
 - Q. And where you wrote in relation to paragraphs A and B the condition is not considered worse than prior to EQ, to the earthquake?
 - A. Correct.
- Q. So as you said you've got a form that is clearly aimed at requiring a building that's been yellow placarded, red placarded, to be structurally strengthened, there hadn't been any structural strengthening and you're modifying the form after you speak to her but as you said, it was a big step so you thought well I'll send it in but I expect I'll be hearing from a council engineer?
 - A. Correct.
 - Q. And when you didn't hear did you give it any more thought?
 - A. From an engineer?
 - Q. Yeah.
- 25 A. Not really, I didn't know what their internal processes were.
 - Q. And so what you you just forgot about it, you must have heard that it was green because you got an email on the 8th of November.
 - A. I was copied in on an email, yes.
- Q. You didn't think to say, "Well should I not, should you not have got an engineer onto it or have you"?
 - A. Not really I mean as I said I didn't think there was anything wrong with the building, it had so yeah, I mean I presume they'd gone through and checked it, and internally and changed the card.

- Q. As you said though it was a big step though wasn't it?
- A. It was a big step.
- Q. And it had public safety issues or implications?
- A. Correct.

JUSTICE COOPER:

- Q. Excuse me, did you say you assumed the council had gone back inside and checked the building before changing it to a green sticker?
- A. I didn't say I thought they'd inspected the building, no.
- 10 Q. So what did you say? I didn't quite hear it. Can you remember what your last answer to Mr Zarifeh was?
 - A. I said that when I received the email advising it had gone green that the council had undertaken an internal review to make that change.
 - Q. But not another inspection of the building?
- 15 A. No, I didn't know what they'd done.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Did you not say to her, "Can I talk to an engineer or should I"?
- A. Well it's not up to me to advise the council how to proceed.
- Q. No, but we've got you saying that it was a big step, had public safety implications and you knew all that, and you knew in fact you should have done a level 2 but you didn't think you needed to, so you knew all that, you're talking to this Laura Bronner and you're thinking well maybe I should be put onto an engineer or maybe an engineer will contact me, so clearly Laura Bronner can't have been an engineer or you would have talked to her, and been satisfied the council about the changing of the form, did you not give any thought to raising it with her then or subsequently?
 - A. No, I had no reason to, I mean I didn't know what their internal processes were.
- 30 Q. And you
 - A. So I put on the table what my views of the building were and expected them to review that.

- Q. Well you were acting for Mr North weren't you?
- A. Yes.
- Q. He was instructing you, he wanted to get back in his business.
- A. Correct, yeah.
- 5 1243
 - Q. He wanted the placard changed. They'd agreed. That was the end of it.
 - A. That was the end of my involvement with the building, yes.

CROSS-EXAMINATION: MR ELLIOTT

- Q. Mr Elliott, Mr Bush's family's particular area of concern is with this decision to change the placard from yellow to green and so I'm just going to ask you a couple of supplementary questions about that. I appreciate that it's been covered quite thoroughly to some extent already. Did you have any experience before September 4 in assessing earthquake damaged buildings?
- 15 A. No, there were no earthquakes prior to that to have that experience.
 - Q. And, correct me if I'm wrong, but it appears that the test that you're applying throughout, in relation to the decision around the yellow to green placard, was damage based test.
 - A. Correct yes.
- 20 Q. Looking to see whether there was damage caused by the earthquake and, if not, then a green placard was the preferred decision is that right?
 - A. Correct, yes.

25

- Q. Did you hear the evidence earlier on from Mr Smith about these two possible tests that may have been available to an engineer making a decision about a building?
- A. What tests were those sorry?
- Q. Well on the one hand we have the damage-based test which I've just described but, on the other hand, there may have been a test available where an engineer could assess a building's capacity to withstand a subsequent earthquake. Would you agree that's a separate test?
- A. It's a whole separate exercise, correct, yes.

- Q. In your report to the tenant I think you said your role was to review and confirm initial safety status, so is it right to say that your focus in carrying out your work was on safety?
- A. Undoubtedly, yes.
- Q. Would you agree, in hindsight at least, that if that was the focus it would have been better to have used that second test that I've nominated where one assesses the risk, I'm sorry the one that looks at the building's capacity and assesses whether it can withstand an aftershock?
- 10 A. In hindsight, yes, and that's pretty much the procedure that's being followed now.
- Associate Professor Ingham has given some evidence by way of a Q. report to the Royal Commission and I'll just quote or summarise a couple of points. He said that the greatest threat to public safety posed 15 by unreinforced masonry buildings is that of falling masonry. A hazard can be due to chimneys that fell by rocking, usually at roof-line. Parapets that are not properly secured can fail similarly. Because of their location along the front and sides of commercial buildings and because they typically fall outwards towards the footpath/street parapets 20 pose a very high danger to the public and also in cases of multi-story buildings with parapet failures parapets can fall further and gable walls can also pose a danger and almost exclusively fall outwards. Are those things which you were aware of during the time that you made your decision about the recommendation to change from yellow back to 25 green?
 - A. Oh yeah I was aware of how masonry buildings were expected to perform, yes.
 - Q. Did you take those considerations into account –
 - A. Yes.
- 30 Q. in completing the form.
 - A. Yes.
 - Q. Mr Smith, in his evidence, identified, just from viewing photographs, two possible failure mechanisms. Did you hear his evidence about that?

- A. Yes I did, yes.
- Q. When you carried out your examinations and, in particular, your final examination did you identify those possible failure mechanisms?
- A. Yeah they were possible but there was no indication that any of them had occurred. I would have expected to have seen more lean on the building or parapets if any of those mechanisms had even started.
 - Q. So, again, were you considering those failure mechanisms in the context of what had happened so far rather than looking forward to see what might happen in the future?
- 10 A. Correct, yes.

15

- Q. You may have answered this but did you then consider those possible failure mechanisms, take those into account in your decision to recommend the change from yellow to green?
- A. Well, as I was stating, the building strength was not reduced from what I, my inspections I made so that was what I was stating to the Council.

WITNESS REFERRED TO DOCUMENT WITMCC0010.29

- Q. I'm referring you here to the forms which Mr Zarifeh has already shown you and which I think you said you would have received with one of those emails.
- 20 A. Yes.
- Q. I'd ask for the section under 'Note to Structural Engineers' to be expanded please. This section says that I won't read the whole thing but "Judging by the impact on buildings in Christchurch, the earthquake in September is believed to be equivalent to no more than a moderate earthquake. Furthermore, survival without collapse cannot be taken as conclusive proof that a building will survive other earthquakes with similar overall levels of ground shaking. Factors such as directionality and duration of strong shaking need to be taken into account." I think you said you don't recall reading that form but you would have read that form I take it when you received it from the Council.
 - A. I probably would have done yeah.
 - Q. So you would have been aware would you of the information given to engineers about factors such as directionality and duration of shaking.

A. Yes.

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- Q. Did you take those factors into account in making your decision?
- A. Yes I did, yeah, yep.
- Q. Did you take into account that an unreinforced masonry building was likely to have an MBS level significantly less than current code?
- A. I knew it was quite likely that it would be less than current code level, yes.
- Q. Did you consider the possibility that an aftershock might generate accelerations in excess of the building's capacity although less than the earthquake of 4 September?
- A. Can you repeat that question sorry?
- Q. Well the earthquake of 4 September would have generated a certain level of horizontal accelerations, do you agree?
- A. Yes.
- 15 Q. And the building would have been capable, in theory, of bearing a certain level of horizontal accelerations.
 - A. Mhm.
 - Q. And there would be a gap between those two levels of horizontal accelerations.
- 20 A. Correct.
 - Q. So did you consider that the building may, in future, experience some horizontal accelerations from an aftershock greater than its capacity, albeit less than those it had received in September?
- A. I considered it could take accelerations less than it had already experienced so on a diminishing magnitude was what I was thinking about, not to the levels that it did get hit by.
 - Q. Did you give any consideration to horizontal accelerations as opposed to likely magnitude?
- A. Not specific numbers. I was probably thinking more of magnitude rather than accelerations.
 - Q. Do you agree that it would have been more useful to you to have considered horizontal accelerations rather than just magnitude?
 - A. Um, I don't know that it would have made a lot of difference.

- Q. Just go to the form that you signed BUIRIC007.0028.3 just enlarge the section in the centre of the page 'B – Potentially Dangerous Features'. So this is the form which reflected the options that Mr Zarifeh referred you to earlier in the Council guidance document.
- 5 A. Yep.
- Q. And one of those factors was the Council's requirement in relation to potentially dangerous features 'Potentially dangerous features on the building such as unreinforced masonry chimneys, parapets and walls have been removed or secured so that their integrity and level of structural performance is consistent with that generally achieved in other parts of the building and so reduces the danger to people's safety and of damage to other property.' You've made a notation 'The condition is not considered to be worse than prior to the earthquake'. Would you agree that your written notation does not address the concern which the Council appears to be raising and, in fact, it seems to be at odds with it?
 - A. I'd agree with that which is why I was raising it to their attention.

- Q. I'm going to be suggesting to the council officer that there appears to have been a breakdown, complete breakdown in the council's process.
 They'll answer that no doubt but just from your point of view, in speaking to the council officer who was one assumes applying the council's position, did it take any persuasion or negotiation with the council officer to have her agree that an amendment could be made and accepted?
- A. I don't believe so. I didn't have to persuade her on it. I was asking her to can I alter them or is there another form I should be applying to this situation.
 - Q. Was it really -
 - A. I wasn't trying to coerce her in any way in agreeing, no.
- Q. Was there any reason, did you have a particular reason for wanting to change it from yellow back to green?
 - A. Not particularly other than I knew Mr North wanted to get back in his building, but that wasn't the primary concern. I mean I was just stating my views on the building.

- Q. So your conversation with the council officer didn't involve any what I've called negotiation at all?
- A. No, no. I don't believe so.
- Q. Can you just tell us exactly what was said on this issue?
- 5 A. Well I can't recall the specifics. My memory's only been jogged by the email that followed that, well preceded that so I can't tell you what was exactly said, no.
 - Q. Your notation appears to indicate the test which you've already agreed you're applying which was damage related?
- 10 A. Yeah.
 - Q. Whereas the council's test seems to be the other one I've asked you about, which in hindsight I think you would agree should be applied, which is looking to the future?
 - A. Yes.
- 15 Q. I think you've agreed already that you didn't look at any plans of the building. Is that right?
 - A. Yes correct.
 - Q. You didn't do any internal assessment at least on the 17th of September. Is that right?
- 20 A. Correct, yeah.
 - Q. Given those points and given the particular danger which you've said you understood were posed by unreinforced masonry parapets and walls, is there anything you might have done differently looking back on it?
- 25 A. Back in that situation now knowing what I knew then.
 - Q. That decision?
 - A. I probably would have acted the same way.
 - Q. Do you not think that in hindsight at least really you would not have sought to alter the yellow placard to green?
- 30 A. In hindsight of course I wish that yes.

CROSS-EXAMINATION: MR LAING

- Q. Could I have that certificate on the screen here please. Mr Elliott, when you, when an engineer provides a certificate to a local authority, territorial authority, is it your expectation the council rely on that certificate?
- 5 A. Yes, yeah it is.
 - Q. And wouldn't that not have been the case here as well?
 - A. Yes but I'd expect them to review it through their own procedures as well.
- Q. Yes, we'll come to that but on the face of it though you provided the council with a certificate that you expected they would rely on, otherwise there'd be no point in the certificate would there?
 - A. True, but it didn't meet their requirements, the certificate, it was modified.
- Q. Yes. We'll come to that. Can I have the case paragraph A highlighted please? Now you've added some words to that paragraph but you haven't crossed the rest of the paragraph out so can I assume that you considered that there wasn't any degradation to structural integrity and performance?
 - A. Correct, yes.
- 20 Q. And you highlight paragraph B please? And that refers to potentially dangerous features doesn't it?
 - A. Yes.
 - Q. So was it your view that there were no potentially dangerous features that you needed to report to the council?
- 25 A. That was not my view, no. What I was stating that I didn't consider them to be any worse than prior to the earthquake so they were undamaged.
 - Q. Well you haven't crossed out the rest of that paragraph have you?
 - A. No I haven't, but I've been quite clear that we've done no securing or interim work on the building.
- 30 Q. That's correct, yes. But you've left paragraph B intact, you've simply added a sentence to it. So wouldn't a fair reading of that paragraph be that there were no potentially dangerous features that the council should be concerned about?

- A. I guess it could be read that way, yes.
- Q. So just to confirm what I think was previously said by you, you didn't have any conversation with Laura Bronner about the need for any further inspection of the building?
- 5 A. I don't believe we discussed that.
 - Q. Or the need for any further inspection by an engineer?
 - A. No I wouldn't tell her how to do her job.

QUESTIONS FROM COMMISSIONER FENWICK:

- Q. I take it you did attend briefing sessions before you started on theassessment of these buildings?
 - A. I wasn't involved with the Civil Defence so I didn't attend those briefing sessions, no.
 - Q. Second point, you were very good at being able to spot whether cracks were existing or not. Can you tell me how did you identify where there was lichen or moss growing in the cracks and how could you tell whether the dust in the cracks and again were old was decayed mortar which might have shaken down or whether it was genuine dust? Did you have a pair of binoculars with you?
 - A. I didn't have a pair of binoculars.
- 20 Q. So you're just relying on straight eyesight?
 - A. Correct.
 - Q. Looking at cracks probably eight or nine metres away from the cracks.
 - A. Yes.

- Q. So you really couldn't tell much of the condition of those cracks, whether they were new or old from that distance, could you?
 - A. I could, I could tell whether there was mould in them because it was quite a distinct black line that you can even see in those photographs, so you could see them. You could see that.
 - Q. The wide ones.
- 30 A. Sorry.
 - Q. From the wide cracks but not from new existing cracks.

A. Oh, very fine cracks I agree I probably wouldn't have picked up any very fine cracks from a distance no.

QUESTIONS FROM COMMISSIONER CARTER - NIL

5 WITNESS EXCUSED

COMMISSION ADJOURNS: 1.04 PM

COMMISSION RESUMES: 2.00 PM

10 MR ZARIFEH ADDRESSES THE COURT – RE HEARING INTO FAILURE
OF BUILDING AT 382 COLOMBO STREET – FORMALLY ADJOURNED
TO DATE TO BE FIXED

MR ZARIFEH CALLS

RUSSELL LINDSAY OFFICER (SWORN)

- Q. Is your full name Russell Lindsay Officer?
- 5 A. Yes it is.

10

- Q. You have a prepared statement that you've signed.
- A. Yes I have.
- Q. And you've got that in front of you and we've got a copy of it. I think you want to make a change you have told me, I think, at the bottom of page 2.
- A. Yes there was only two people in the response team.
- Q. Well perhaps, have you changed your copy?
- A. Yes I have.
- Q. Well when you come to that you can indicate that you're changing it.
 15 Can I ask you please to read your statement and when you come to a document I'll get it brought up on the screen.

WITNESS READS STATEMENT

- A. "My full name is Russell Lindsay Officer and I am currently employed by Fletchers as a Contract Supervisor. My cellphone number is 027 507 6118 and I reside locally in Christchurch. My building qualifications include National Certificate in Carpentry Level 4, National Certificate Level 4 Leading Hand in Construction, LPB Number 100079 Site 1 and Carpenter. I am a member of professional organisations BOINS, Member 20085121 and ex-member of Certified Builders' Association of New Zealand until May 2011."
 - Q. What's BOINS for those who don't know?
 - A. Building Officials Institute of New Zealand.

WITNESS CONTINUES READING STATEMENT

A. "I have approximately 13 years experience in the construction industry
and I have owned my own company and have employed staff over five
years. I have worked on new residential dwellings including
architecturally designed, additions and alterations to dwellings, additions
and alterations to historically protected dwellings, alterations and

additions to commercial buildings. I was employed as a Building Inspector by the Christchurch City Council from 4 April 2008 until 14 October 2011. During this time I successfully completed numerous building related courses, including Getting Started as a Building Official; The Building Act 2004; Weather Tightness – New Zealand Building Code E2; Fire Safety Systems New Zealand Building Code CAS1."

- Q. Can I just ask you there, you said 13 years in the construction industry. What about before that, what was your occupation?
- A. 12 years as a policeman, Christchurch Police.
- 10 Q. Carrying on "At 11.45 am" page 2.

WITNESS CONTINUES READING STATEMENT

- A. "At 11.45 am on Saturday 4 September 2010 I was based at the Christchurch Art Gallery in response to the Christchurch civil emergency. At this time I was a member of the Rapid Response Team.
- Teams were provided with an emergency vehicle and my detailed area was CBD and outer lying CBD area." There will be one change here. "The response team included one CPE Engineer, Vaughan McMillan, and myself."
 - Q. So we cross out one search and rescue expert and one safety officer.
- 20 A. Yes.

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- Q. So there were just the two of you on this occasion.
- A. Yes.
- Q. On other occasions were there others?
- A. There were four.

25 WITNESS CONTINUES READING STATEMENT

A. "The assessment was intended to be completed as soon as possible to determine whether the buildings were safe to enter and did not put other buildings or members of the public at risk to Level 1. If the buildings were deemed safe then a further and more rigorous assessment could be taken at a later date. During the time of the civil emergency I spent considerable amount of time in the CBD area, had become aware of the risks and destruction caused by masonry/parapet failure. This experience taught me to perhaps err on the side of caution. As a result

of the call to the Emergency Response Centre, 10.15 am, Saturday 11 September, I went to the building situated at Riccarton Road with Mr McMillan and not other members."

5 JUSTICE COOPER:

- Q. 7 Riccarton Road?
- A. 7 Riccarton Road.

EXAMINATION CONTINUES: MR ZARIFEH

- 10 Q. Cross out 'with other members'.
 - A. Yes.
 - Q. And stick with Mr McMillan. So you've already said this I think but just to clarify so on the 11th, on Saturday the 11th it was just you and McMillan.
- 15 A. Yes.

30

- Q. On other days before that there were more in the team sometimes.
- A. I was with other members yes. I was involved in four emergencies. Do I need to explain that or?
- Q. Well tell us yeah.
- 20 A. I was involved in the emergencies in September, Boxing Day, February and June so I apologise for the error but I was involved with so many assessments.

JUSTICE COOPER:

25 We understand thank you.

WITNESS CONTINUES READING STATEMENT

A. "I did not record the name of the company concerned but I recall it was a bookshop and due to the condition of the building" – another change – "we parked the vehicle on the opposite side of Riccarton Road. This was approximately 17 to 18 metres from the building concerned. The building was unreinforced masonry comprised a ground and first floor.

- There were large windows on the ground floor and a masonry parapet on the north end facing Riccarton Road."
- Q. Can I just ask you there, rather than come back to it, why did you park, I mean what was it about the condition that made you park across the road?
- A. I personally did a quick assessment of the building and I deemed it wasn't prudent to park in front of it.
- Q. Because of what? What was the reason?
- A. Because of the cracks, large cracks that were visible from the Riccarton
 Road. At another part of our assessment when we went to buildings if there was any possibility of danger park on the opposite side of the road or in the middle of the road.

WITNESS CONTINUES READING STATEMENT

- A. "I'd seen, I'd been shown photographs of the building that I've been told were taken on 7 September 2010. These photographs reflect the general condition of the building as I saw it on 11 September 2010 and the cracks I saw in the façade."
 - Q. Okay shall we just get those brought up while you, before you read the rest of it. Those are the ones that you've probably already seen Mr Elliott being referred to and they start at 0016.1 through to .9. So I'll just get these flicked through and get you to confirm that those are the photographs you're talking about that you were shown.
 - A. Yes. I don't recall seeing that one.
 - Q. That's at the back of the building. Did you go that far?
- 25 A. No didn't go to the back.
 - Q. Okay we'll just keep going That's the western side?

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- A. Yes.
- Q. And that's I think the eastern side?
- 30 A. No, I don't recall seeing that one.
 - Q. Okay.

JUSTICE COOPER ADDRESSES COUNSEL – THAT IS 16.9

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Right, but the ones on the facade on the western side you recall being shown?
- A. Yes I do, yes.
- 5 Q. And just return to your brief, you were going to tell us about the cracks?
 - A. Yes.

WITNESS CONTINUES READING STATEMENT

A. There were large cracks above each window in the first floor that continued up to the top of the parapet. However my main concern was the large cracks at each end of the parapet from the east and west ends of the building. Having viewed some of the photographs today the ones on the west end, sorry on the east end aren't as large as I recall them, they are a lot smaller. The ones –

15 **EXAMINATION CONTINUES: MR ZARIFEH**

- Q. Let's just have a look, so we'll just deal with the facade first, we can see it in that photograph?
- A. Yes.
- Q. Can we see the cracks that you were concerned with there?
- 20 A. Yes above the windows, yes.
 - Q. So are they the cracks that Mr Smith pointed out?
 - A. Yes.
 - Q. And does that photograph accurately portray the cracks as you remember them?
- 25 A. Yes it does.
 - Q. And if we look at the western one which –
 - A. The western one was the one that was a concern, that's the eastern one.
 - Q. Point 6 is the western, oh sorry, .8. That's the western one?
- 30 A. Yes. That's the one that was a concern to me.
 - Q. Right, and you recall Mr Smith pointing out where that crack ran?
 - A. Yes.

- Q. And we'll just look at the eastern one please which is .3.
- A. Yes, that one's not very significant near the top.
- Q. All right.

- A. But in my mind it did affect a certain amount of integrity.
- 5 Q. So perhaps if we go back to the western one, .8.
 - A. Yes, that was of concern.
 - Q. Right, now just tell us why that was a concern to you?
 - A. In my opinion that infected the integrity of the parapet, bracing it to the rest of the side of the other side of the building, therefore if there was a possibility of the building moving backwards and forwards then there was a possibility in my mind that the parapet would either fall inwards or outwards, so in fact the bracing of that parapet had been compromised.
 - Q. The cracks that you referred to on the facade, what made you concerned about those?
- 15 A. There again if the the integrity of the centre of that face if there sideways or backwards movement I thought well there's a possibly, it also may fall inwards or outwards, but the real concern actually was at the ends, at the ends of the parapet.
 - Q. And the west end in particular.
- 20 A. And the west end particular.
 - Q. So if you go back to your brief, page 4 I think that first full paragraph, I came to the conclusion.

WITNESS CONTINUES READING STATEMENT

I came to the conclusion the bracing of the parapet and the structural integrity was compromised and posed a serious risk to both occupants of the building and members of the public using the footpath at the northern end of the building. I've just made a small change here as well. Mr McMillan and I discussed the building and I recommended a red notice. However after discussion, change again, I was instructed to give a limited access to the building for the undertaking of a complete assessment only, level 2. I completed the rapid assessment form level

1 and a yellow Building Act section 126 notice was affixed on the said building.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Okay, if you just stop there, just so there is no confusion. In the brief, we take out this matter was discussed at length, however, and replace it with what you've said?
 - A. Yes, however I was instructed to –
 - Q. Just tell us about that. You're the building inspector and you're with a CPEng engineer. So who trumps who if there's a discussion about the appropriate (overtalking 14:15:19)?
 - A. Well, no obviously the engineer has the final say and that's fair enough. Mr McMillan was very apt, or very pleased to hear my points and we worked quite well as a team and so he was prepared to listen to my views which I respected.
- 15 Q. Right, but ultimately if you thought it should be red and and he thought yellow it would yellow, would be (overtalking 14:15:40)?
 - A. It would be yellow.
 - Q. Okay, and obviously you accepted that?
 - A. Yes.

- 20 Q. And we've got the form that you completed if I can get you to get it brought up on the screen. It is 0020.1. Recognise it?
 - A. Yes that's the form.
 - Q. So in your comments you've written 'large crack in front facade and parapet'?
- 25 A. Yes.
 - Q. 'Engineer to inspect and advise. Restrictive access for inspection only'.
 - A. Yes.
 - Q. So it seems to refer to only one crack.
 - A. No, it should have been cracks, plural.
- 30 Q. And what's the what was your point of engineer to inspect and advise?
 - A. Well it needed a level 2 assessment because we hadn't been on the inside.

- Q. Right, and, well just tell us about that, what from your experience was, why did it need somebody to go on the inside (overtalking 14:17:02)?
- A. Well you can't always in my experience, which is limited, especially with earthquakes, you can't completely tell the structural integrity of your building until you've had a thorough inspection and I was concerned about the inside but I couldn't make any evaluation because I hadn't been on the inside.
- Q. I notice that you didn't tick 'barricades are needed'. Do you see that's -
- A. Yes I do, yes.
- 10 Q. above where it's been ticked level 2? Is there any reason for that?
 - A. I personally would have preferred to have barricades. I don't think we discussed that.
 - Q. Right.

- A. Because you don't normally have barricades if it's only a yellow label.
- 15 Q. Was that your understanding of what, policy or what?
 - A. No the procedures, if it's red label it's advisable, especially with a masonry parapet to have barricades.
 - Q. Okay, but if it's yellow.
 - A. It's not deemed necessary.
- 20 Q. And is that part of the briefing or ...
 - A. It was but it wasn't in September, it was later on, in February. But it was my understanding if it was unsafe then barricades and a red notice issued.
- Q. And I suppose if it's yellow and someone's still got to be able to get there to inspect it or to repair?
 - A. Yes.
 - Q. All right, now I think you were just about to read that second to last sentence on four?

30 WITNESS CONTINUES READING STATEMENT

A. I wasn't completely satisfied with assessment and felt a red notice should have been issued deeming the building unsafe.

Q. And this is from your recollection of discussions that you had, or thoughts that you had. Did you have any records at the time or not?

A. I recall that because we were busy it was a fairly brief discussion and because I was, there were ongoing shakes, I was really concerned about it. That was my personal view and I can understand the views of somebody else who has more knowledge in those matters.

Q. All right, carry on please.

WITNESS CONTINUES READING STATEMENT

10 At 10.00 am on Wednesday 23 February 2011 as a result of a national Α. emergency I was a member of the rapid response team based at the Christchurch Art Gallery. At this time I was advised of the death of Mr Ross Bush and the tragic circumstances upon which he died in his vehicle parked outside 7 Riccarton Road. I had previously worked with 15 Mr Bush on a building project and was aware of his respect and high standing in the construction industry. On Wednesday 2 March 2011 at 4.10 pm my rapid response team was instructed to go to 7 Riccarton Road and assist with the recovery of Mr Bush's tools and personal items. On arrival I met Leana, Mr Bush's daughter. I gave her 20 assistance where required. Mr Bush's body had been removed from the vehicle before my arrival.

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CROSS-EXAMINATION: MR ELLIOTT - NIL

CROSS-EXAMINATION: MR LAING - NIL

25 QUESTIONS FROM COMMISSIONER FENWICK - NIL

QUESTIONS FROM COMMISSIONER CARTER:

Q. Just in respect to your description of being, going to this site to check if it was safe. Was that the words that were used by the council in instructing your visit to check for the building being safe? A. It wasn't, it wasn't raised at the briefing but with experience we found out because a lot of the buildings were so unsafe the best thing was to do, was either park across the other side of the road or in the middle of the road and initially, with time, in February it became policy that that's what we should do.

QUESTIONS FROM JUSTICE COOPER - NIL

WITNESS EXCUSED

MR ZARIFEH CALLS

VAUGHAN MCMILLAN (SWORN)

- Q. Mr McMillan, I don't know if your full name is Vaughan McMillan?
- A. That's correct, yes.
- 5 Q. It is, thank you. You've got a statement in front of you that you've signed?
 - A. Correct, yes.
 - Q. Can I ask you to read that to the Commission and I might come back at the end and, and refer you to photographs or amplify it.

10 WITNESS READS STATEMENT

A. My name is Vaughan McMillan. I reside in Christchurch. I'm a chartered professional engineer, CPEng. I'm a consulting engineer practising under the name of McMillan Consulting Limited. I've worked in consulting as a consulting engineer for 41 years. Prior to my current practice I was a director of Davis Ogilvie & Partners for 13 years and other practices I have worked in include Smith McNaught & Partners, Auckland, Babbage & Partners, Auckland, D A Stock & Associates, Christchurch, Hardie & Anderson, Christchurch and Holmes Wood & Poole, Christchurch. On the 6th of September I was assisting with building inspections which would have been carried out in Christchurch as part of the civil state of emergency following the 4th September earthquake.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Is that a mistake in the date? I'm not saying it's your fault but?
- 25 A. No, yes, it says 6.
 - Q. It is. Can I get you to change that to 11?
 - A. 11.
 - Q. Because you were with Mr Officer who's given evidence?
 - A. Correct, yes
- 30 Q. Thank you.

WITNESS CONTINUES READING STATEMENT

A. On 11 September 2010 I was assisting with building inspections which were being carried out in Christchurch as part of the civil state of emergency following the 4 September earthquake. I recall visiting the building that was at 7 Riccarton Road but I do not recall a lot of the detail. The building already had a placard. I vaguely recall I had concerns with the cracks on the front façade and on the return on the top of the adjacent western wall. This would have triggered the yellow placard. I do not recall any further details of the inspection. I have been shown photographs of the building that I have been told were taken on the 7th of September 2010. These reflect the state of the building as I recall it although, as I said, my recollection of the details is vague.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. You've heard Mr Officer giving evidence a moment ago and he recalls some discussion about the appropriate placard. Can you remember that discussion or not?
- A. No I can't.
- Q. Okay.

- A. In fact I, I think, well I can't recall it at all.
- Q. Did you visit other buildings with him either on that day or other days?
- 20 A. On this particular day numerous buildings. Mr Officer would have an idea of that.
 - Q. And were, did you have discussions the two of you about other buildings?
- A. Occasionally where it was borderline we would discuss it but as a rule the decision came down to me.
 - Q. To you, as he said, right and the photographs, I don't know if you need to see them again, you've probably seen them but the, show the cracking on the façade and the western wall that you've referred to. You recall seeing that photograph in Court today?
- 30 A. Yes.
 - Q. Why would those cracks have resulted in a yellow placard that it did. Explain the reasoning?

- A. The, okay, the, the cracks on the front of the building, best described as above the two side windows –
- Q. You've got a photo there -
- A. The basic cracks, this one, this crack here and the crack here were a concern to me. They showed the cornice on, which is closest to Riccarton Road appeared to have a wider crack than the body of the parapet best described as back on this face or this face which indicated to me that there was a certain amount of bulging occurring on the front of that building.
- 10 Q. Sorry can I just get you to, might just be me, can you just explain it in a bit more detail?
- A. Well the central part of the façade, this area that I'm circling here is quite robust and integral unit whereas from here back to the returns on either side we've got a weaker structure and if any cracking was going to occur it was going to occur in these zones if this façade I've now got the mouse on was going to come outwards into Riccarton Road and the fact that these cracks were wider in these zones, relative to the cracks back on the main body of the building, indicated there is possibly some bridging or movement out on, of the central portion.
- 20 Q. And what about the crack on the western wall?
 - A. The crack on the western wall -
 - Q. (inaudible 14:27:23).
 - A. Well obviously from the ground you can't tell how old these cracks are. It's just too far away to see. So you need to be in a cherry picker or something similar to be able to establish the age of cracks but while that one's there, there is a very small crack up
 - Q. That's on the eastern –
 - A. On the eastern side –
 - Q. Right.

30 A. If I get the mouse going to the right spot. I've lost it. Here it is. Just up in here but there is also some vegetation up there so that one may have been growth induced.

- Q. Right and we'll look at the western which is point 8. You've got to take the mouse off sorry.
- A. Off the side?
- Q. Yeah, just while it's changed. Thank you.
- 5 A. There's a crack we're referring to along this line and coming down here but you can't really tell where it goes from that point. The paint is in a reasonable, reasonably poor condition and you can't follow the crack from that point. That indicates that there's a possible façade movement towards Riccarton Road but it, without looking at that crack in detail you can't really establish what age it is.
 - Q. Okay. So Mr Officer said, referring to the form he completed and I take it he completed it under your direction (inaudible 14:28:53)?
 - A. I tell him what, what I saw as issues.
 - Q. What about the comments and what to tick. Would that come from you?
- 15 A. Probably not. I was more interested in the detail on the building.
 - Q. Right but where he's put "large crack", it should be "cracks", "at front façade and parapet, engineer to inspect and advise restricted access for inspection only".
- A. Well I'll possibly, I'll give you another insight to one of my other concerns. If we could look at the front of the building, the total elevation. Yes, that one. The, you'll see a weathering pattern coming along the building and basically following the roof profile but much lower. That, that, with brickwork you get moisture ingress, particularly on the rear of parapets and it, it tends to come out at a lower level on the front. So I was a bit concerned about the state of the ties on the back of that wall and that, that was the other concern I had.
 - Q. And that weathering that you talk about –
 - A. Yes.
 - Q. Is that the faded, more faded appearance?
- 30 A. You can see where the paint is showing signs of breaking out.
 - Q. So how does the weathering relate to the ties?

A. Well the ties are, typically on a roof plane if I was to run a mouse across what I would consider the roof plane would be from probably about along that line there and down to about here and you can see that the plan I'm looking at reflects that same line.

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JUSTICE COOPER:

- Q. So we assume a pitched roof behind the parapet.
- A. Yes, it is a pitched roof we saw that in the (inaudible 14.30.31) roof, um, and the ties usually are at the ceiling plane which would be across this level or on the rake of the roof. You can't tell from just looking at the building where they are so I was really, given the potential movement on the face I thought it was prudent to have a yellow sticker so that those ties could be looked at.

EXAMINATION CONTINUES: MR ZARIFEH

- 15 Q. And is that too why level 2 detailed engineering evaluation structural was recommended?
 - A. I would assume that would be the case.
 - Q. And can you tell us how would those ties be checked by an engineer in a subsequent visit?
- 20 A. It would really require access in the ceiling space of the area behind the façade.
 - Q. So it would need an internal inspection to complete that.
 - A. Correct.
- Q. And if those ties were compromised as was your concern what doesthat mean potentially for the façade?
 - A. Well it means the façade may not have been supported adequately. The mass of the façade is such that I doubt very much it would have spanned side to side. There was no concrete banding apparent. In other words there was no concrete beams running round the top of the brickwork so its very important to have those ties established.

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CROSS-EXAMINATION: MR ELLIOTT

- Q. Was there anybody else in occupation or anybody in occupation when you looked a the building?
- A. No, no-one was there.
- Q. That was a Saturday morning I think.
- 5 A. Correct.

- Q. You referred to this discussion between you and Mr Officer. In your experience was it common for the C PEng to over-rule may not be the right word but to over-rule the building officer?
- A. Well I can't recall the conversation.
- 10 Q. Right but I mean in general just on other buildings.
 - A. No, not normally, no.
 - Q. And in your experience of this inspection process generally did you find that views might have differed between different engineers about the types of placard that might be applied?
- 15 A. Yes I think a lot of it's dependant on the experience of the engineers and what they've seen in the way of other buildings.
 - Q. How did you think that experience might affect their decision about the type of placard to apply?
- A. Difficult one. I'd probably put it another way. When I graduated from university we had to deal with masonry buildings of this nature quite commonly but engineers who are currently coming from our institutions probably don't know much about unreinforced brick buildings.
 - Q. All right well we're having a separate hearing on this issue so I won't pursue that further although you may be invited back, we'll see. But what about, was it your experience that some engineers were more likely to take, say, a more robust approach and others a more conservative approach to the placarding of buildings?
- A. I see where you're coming from. The, in this instance I looked at the building and considered it was probably an earthquake risk building because of the magnitude or the size of the parapet features and so I was approaching it on that basis.

- Q. When you went out to inspect this building were you given any information by the Council about whether or not it may be earthquake-prone according to their records?
- A. No.
- 5 Q. Did the Council give you any instructions about cordons?
 - A. No.
 - Q. Mr Officer said, I think, that if there was a yellow placard placed then a cordon wouldn't be considered. Was that your understanding of the position?
- 10 A. To be fair I didn't know the Council background.
 - Q. You didn't know the Council background?
 - A. I didn't know what the Council instructions were. I was principally looking at it as a practising engineer, what I would consider was safe and not safe.
- 15 Q. So had you been given some instructions by the Council at all about these types of inspections?
 - A. No. I did some voluntary work on a Saturday.

CROSS-EXAMINATION: MR LAING - NIL

QUESTIONS FROM THE COMMISSIONERS & JUSTICE COOPER - NIL

20 WITNESS EXCUSED

MR ZARIFEH CALLS

FRITZ MULLER (SWORN)

- Q. Is your, I don't know if your full name is Fritz Muller is it?
- A. Exactly.
- 5 Q. You are a Loss Adjuster employed by Cunningham Lindsay.
 - A. Correct.
 - Q. And you haven't got a signed statement but you have prepared an outline of your involvement with 7 Riccarton Road, the building that was there, in an email correspondence.
- 10 A. I did indeed.
 - Q. I think probably the easiest way is if I can ask you to read your email and when we come to photographs or any documentation we can pause, all right? So perhaps if you, it's the email of 11 December that you're talking about.
- 15 A. That's correct.
 - Q. Perhaps if you start from "The owners' insurer".

WITNESS READS EMAIL

Α. "The owners' insurer, State Insurance, appointed Cunningham Lindsay to report on the damage and repair costs caused by the earthquake on 20 4 September 2010 to the building at 7 Riccarton Road. Our instruction from the insurer was to contact Mr Michael Yan as the spokesperson for the owners to arrange access to the building. Following the insurer's instruction I visited the property on three different occasions which are covered below. My first assessment was carried out on Monday 27 25 September 2010 in the presence of an employee of the tenant at the same time and three Cunningham Lindsay employees from South Africa. Those employees have since returned to South Africa. Mr Yan was not present during that assessment. In the opinion of the four Cunningham Lindsay personnel the visible damage was pre-existing. 30 Although it is possible that the pre-existing damage could have been exacerbated by the earthquake on 4 September 2010 we did not find visible evidence of any exacerbation or fresh cracks. We reported our findings to the insurer, to the owners' insurer for their consideration"

- Q. I'll just stop you there. When you say that the visible damage or the cracks were, in your opinion, pre-existing, what made you say that?
- A. Well, firstly, the general condition of the building. I think the word I used at the time was 'appalling'. We did an internal inspection. I noticed that there was, the façade was clearly moving away from the main structure of the building and dirt and grime, everything, lodged into that which is an indication that it has been like that for some time.
- Q. Okay, what about the cracks on the façade on the outside?
- A. Well, to really give a good description of the cracks or really make a decision on that you'll have to get up there. What I had was my camera. I took photographs of it as best I could and from memory it had moss growth in it in some cracks. I've taken other photographs of the building just to substantiate that. It, in general, appeared that most of the

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- cracks you couldn't find any real cracks. I'm not an engineer but that 15 was my opinion at the time. After our first survey Mr Yan was informed of the result and possible declinature of his claim. He suggested that we revisit the property accompanied by a Christchurch based representative for the owners since he, Mr Yan, was based in Auckland 20 and unable to attend himself. The name of the agent and this I need to correct I've since learned that it was Mr David Yan was also part owner of the property. On Monday 4 October 2010 I met with the agent to discuss the damage and the way forward. However the language barrier ended the conversation and we agreed that with Mr Yan the best 25 course of action would be to engage an engineer to report the structural integrity of the building with specific reference to the façade. Mr Yan advised that he would engage an engineer known to him and that he would request said engineer to contact us in due course. Our third and final visit to the property before the 22nd February earthquake was on 30 Wednesday 10 November, 2011 [sic]. That followed a direct request from Mr Yan.
 - Q. Would that be 2010?

Α. That's correct. My apologies, 2010. That followed a direct request from Mr Yan and his preferred engineer Mr Robert Ling, I don't know how to pronounce the rest to meet on site on 10 November 2010 again. I met on site with Mr Ling. That is Mr Robert Ling and the agent which is Mr 5 David Yan that had accompanied on previous visit. I restated our view that the damage to the façade predated the September earthquake and reiterated that the building was in poor state of repair. We discussed the fact that the junction between the façade and the main support structure of the building had parted but that the very noticeable crack 10 was pre-existing although possibly exacerbated by the earthquake. Mr Ling agreed that the condition of the building was unacceptable. I heard him say to the insured agent in English that was Mr David Yan that is part owner that the building was in poor condition and that the owner should do something about it. They then had a conversation in a 15 language that I didn't know and which may have been Mandarin. I do not know what they said. Mr Ling then requested that we extend him an opportunity to submit a report on the structure integrity of the building. This specific reference to the façade as well as the recommendations on repair methodology. We parted with full understanding that the 20 insurance claim could only progress on receipt and acceptance by the insurer of Mr Ling's report. Mr Ling also agreed to cover potential repair estimates in his report. I believe that the only visible cracks noted during our initial survey were pre-existing. I based this on dirt entrenched inside the cracks and moss growing from external cracks. 25 The façade clearly had vegetation growth at the top which was in our opinion an indication of poor maintenance. The only cracking we ever observed was what we saw during our first assessment which was the cracking to the façade. Other than the fact Mr Ling agreed to explain in his proposed report why he was of the opinion that the damage was fully 30 earthquake related he made no specific further comments on the structural integrity of the building. We relied on Mr Ling to provide the report expeditiously to enable us to report to the insurer. The insurer would then with our comments make a decision on policy response. In

the weeks and months following the last meeting with Mr Ling we requested the report on numerous occasions without any success. Mr Ling kept promising that the report would be available soon but it's never been delivered. The last time we called Mr Ling for an update on the report prior to the earthquake on 22nd of February, 2011 was on Wednesday 16 February, 2011. Mr Ling advised that he had discussed the report with Mr Yan that morning and that he would have the report ready within the next week. The following day we sent an email to Mr Yan requesting him to chase Mr Ling for the report since we were unable to progress his claim without the report. We had no reply from Mr Yan or Mr Ling in the following days leading up to the 22nd of February, 2011 earthquake and beyond. Neither Mr Yan nor Mr Ling informed us of the collapsed façade after the February event. We discovered that the building collapsed during a survey of another building, a damaged building in close proximity. We immediately called Mr Yan and advised that he was aware of it. We once again reiterated the importance of the report by Mr Ling. To date we have not received anything from Mr Ling on this matter. Please note that your reference to a visit or visits after the Boxing Day earthquake accompanied by Mr Ling and Mr Yan is incorrect. We have never met Mr Yan in person. That would be Mr Michael Yan and did not go to the property between the visit on Wednesday 10 November, 2010 and the day we discovered the building damaged which was after 22 February. The discussions between Mr Ling and the writer did not include specific reference to the structure or stability of the façade. Both parties agreed that the façade had moved away from the support structure of the building. discussion was rather focused on whether the visible crack was preexisting or related to the earthquake. I have still not seen a report from Mr Ling which would support his view that the façade damage was earthquake related. I continue to believe that it was pre-existing and had developed over a long period. It was for that reason that I never saw the façade as being a particular danger. Batch number of photographs taken during our first assessment.

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- Q. Let's have a look at those. There's 0051.1 through to .4. So these were taken on the 27th of September the first visit?
- That would be correct.
- Q. Okay and obviously the first one on the top left is the area from the front?
 - A. That's correct.
 - Q. And just take us quickly through the rest. What's the next one on the top right?
- A. The next one is taken on the first floor. That was the idea of the photograph is just to demonstrate to the insurers the condition of the building.
 - Q. Which you described as very poor?
 - A. That's correct.
 - Q. Bottom left?
- 15 A. Bottom left same thing. I, it's general practice a lot of photographs being taken during these assessments. We do a lot of assessments and it's difficult to remember everything to basically to jog the memory.
 - Q. What's that on the inside of the window frame? It looks like the frame's been removed is that correct? There doesn't seem to be an internal frame to that window where the plaster is.
 - A. That there?

- Q. Yes. If you're not sure it doesn't matter.
- A. I'm not sure but it appears to be some support to keep the plaster up. It does look like it.
- 25 Q. That's where you got the mouse at the moment you mean?
 - A. Yep.
 - Q. That wooden framing?
 - A. That's correct.
 - Q. Was that what some kind of bracing?
- 30 A. It would appear to be some form of bracing but I can't honestly recall that.

Q. And the wall that we can see on the right is that, I'm not sure if it's just the appearance but it looks like it's coming outwards. Is that, was that correct or not or is that just the photograph?

1450

- 5 A. It's probably just the photograph, I can't see that, no.
 - Q. The next one on the bottom right?
 - A. Just as I say once again a general photograph. This appeared to be the best maintained portion of the building.
 - Q. And is that the bookshop downstairs?
- 10 A. That's the bookshop downstairs at the towards the back away from Riccarton Road.
 - Q. The next page .2 please, the top left.
 - A. Once again just a general indication of the overall condition of the building.
- 15 Q. And again the ceiling?
 - A. It's a lath and plaster ceiling which rotten, possibly due to a roof leak.
 - Q. Because there appears to be a bulge in it, is that in the ceiling?
 - A. Probably bulging due to moisture.
 - Q. Next top right?
- A. That's the crack that's been discussed in length this morning. I've also noticed a crack although I wasn't unable to get up there to have a closer look, but from memory I believed to have seen moss growth in it, which given the condition of the building prompted me to believe that it's pre-existing.

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JUSTICE COOPER:

- Q. Show us where the moss growth was?
- A. Inside this arch. I have a photograph closer to which my mind looked like moss is growing in it due to the moisture.

30 **EXAMINATION CONTINUES: MR ZARIFEH**

Q. And where are you looking from when you took that photo, are you down on the ground are you?

A. Yes, what I did is, that's unfortunate, I took high definition photographs, as with everything, but high definition photographs tend to clog up your computer space. What we normally do we reduce them in size, the high definition was to get the clearer picture of that and unfortunately I've deleted all of those. We normally reduce them and, for storage.

JUSTICE COOPER:

- Q. Well anyway, you're indicating a crack on the inside panel –
- A. Inside.

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- 10 Q. of the western window on the Riccarton Road frontage?
 - A. That's correct. That crack runs right through and it ties up with everything at the top.
 - Q. Well I know that, but the, where you say you observed moss was in the location that you've just described.
- 15 A. What I've perceived to be moss growth, by then we've experienced a lot of earthquake cracks and we could clearly identify what was a fresh crack and what was an old crack, and it's based on that that I believed that that was an old crack, a pre-existing crack.

EXAMINATION CONTINUES: MR ZARIFEH

- 20 Q. And if it is an old crack, a pre-existing crack, then it wouldn't be covered by insurance presumably?
 - A. Exactly and that's just my point. My instructions from the insurers is to assess a property and report back to them on quantum and whether the actual claim lodged would be a legit claim and insurers in general don't cover maintenance and wear and tear and they've got a general condition that the owner should take reasonable care of a building and my opinion they have not taken reasonable care of the building.
 - Q. And so did the general state of it have anything, any bearing on your opinion?
- 30 A. Well the general state of the building is poor and based on that, and as I earlier said, I'm not an engineer but I have seen earthquake cracks.

- Q. Okay, carry on with that page please. Bottom left and right. Oh we've gone over to the next page I think. Oh no, bottom left, yeah.
- A. Okay this is the one.
- Q. Where's that?

- 5 A. This would be, and this is from memory. I'm not 100 percent sure but at the top floor, or the first floor there's two separate rooms with hallway, there's three windows if you look at it from a street elevation. This one would be on the eastern side. The roses or flowers would be the eastern wall and the white wall would be the facade. That's from memory.
 - Q. And so it shows the facade.
 - A. It shows, well to my mind what I saw there was the facade is clearly parting from the side wall, and from the colouration on it, I was convinced that it is pre-existing and based on that I advised the insurers that there's no earthquake damage.
 - Q. Of course you wouldn't know the extent of the crack and whether it had been widened would you?
 - A. No I wouldn't know that, no.
- Q. So it was there must have been some element of pre-existence of it,
 about it, but you don't know whether the September earthquake could have widened what was already a crack?
 - A. No I wouldn't, and that's exactly why in my report to the insurers I indicated that there is a possibility that the earthquake could have exacerbated or widened the crack, but the crack was pre-existing.
- 25 Q. And for that matter an aftershock following 4 September could have widened it, couldn't it?
 - A. It could well have opened, yeah.
 - Q. The bottom right.
- A. I can't say exactly where I took that photograph. It would be on the first floor, two joint walls, but once again it's just to provide an indication to the insurers of the condition of the building and I looked at that and my opinion at the time was that that is pre-existing considering the dirt inside the crack.

- Q. Okay, but that's an internal wall or walls?
- A. That's internal wall.
- Q. Now the next page .3, we probably don't need to go through but I'll just get it brought up, just showing more internal damage?
- 5 A. Exactly, yes.
 - Q. Internal walls is another the same photo you showed us?
 - A. Yeah.
 - Q. Top right.
 - A. That's right.
- 10 Q. And the next page, the last page .4, we see a crack, is that on the eastern side, top left?
 - A. Top left, that crack yep.
 - Q. Oh sorry the western side isn't it?
- A. That's the western side, that crack, yes. Once again on my high definition photograph you can clearly see moss growing out of that, out of the crack and based on that I reported that I don't believe that was earthquake damage. The crack was pre-existing.
 - Q. And so I take that in terms of declining or reporting to you, the insured, to the insurer, as long as you're of the belief that the crack was existing, pre-existing, it didn't matter if the earthquake had widened it?
 - A. No-

- Q. You didn't have to go into that for your purposes?
- A. we have to go back to the intent of insurance.
- Q. Right.
- 25 A. The intent of insurance is to put you back in a position you were before the event and it must be sudden and accidental and this clearly points to the fact that the building wasn't maintained.
 - Q. What I'm getting at is your the angle you're approaching from is different from a structural engineer who's doing an inspection?
- 30 A. Totally different. I'm reporting on quantum and a policy response.
 - Q. And you're not looking, you're not that interested if a crack's widened as long as it was there already or –

- A. Yes. I do report on the damage. I do report on repair methodology and we normally would recommend engineers get involved.
- Q. All right, and in fact there was going to be one, you thought Mr Ling?
- A. That's correct.
- 5 Q. But that never eventuated?
 - A. No, I met with Mr Ling on site.
 - Q. Yes, as you said, yes.
 - A. But I've never seen the report.

- 10 Q. And I think we've seen the top right one. Is that the, the eastern wall?
 - A. That's the eastern wall, yes and the only reason why I took that photograph, I, it's only this morning that I realised there's a tiny crack but because of the vegetation growth on top of the parapet.
 - Q. Right.
- 15 A. This once again comes back to maintenance.
 - Q. Maintenance, right, and the bottom left is that the yellow sticker that was what, on the front door?
 - A. That's correct, what's on there, that's, yep, that's correct.
- Q. All right. All right. Thank you. Mr David Yan you said was the other person that was present with Mr Ling?
 - A. Yes I didn't realise it when I wrote this but Mr David Yan is part owner of the property and he was present during the second and third.
 - Q. Right and you said that Mr Ling, his engineer, wanted, wanted to report and explain why he was of the opinion that the damage was fully earthquake related, right?
 - A. That's correct.

- Q. What was Mr Yan's view about, or you're telling him these are preexisting, this is pre-existing damage. What was Mr Yan's view?
- A. I normally spoke to Mr Michael Yan which is based in Auckland. I hardly had any discussions with, with Mr David Yan.
 - Q. I meant on, on these visits. Did he -
 - A. On these visits even so because of the language barrier I didn't have a lot ...

- Q. What about Michael Yan. Did he accept your view that it was most if not all pre-existing?
- A. Well from memory Mr Michael Yan at that point had not seen the building. So he's been informed of the possible, the closure of the claim however I believe Mr David Yan could have advised him, or informed him that the crack is earthquake related and based on that he insisted that we meet with Mr Ling on site to discuss it.
 - Q. I see. So your views were passed on and that resulted in another meeting?
- 10 A. Exactly. I reported to the insurers and they would have advised Mr Michael Yan as well.
 - Q. All right. So is it fair then to say that Mr Michael Yan clearly didn't accept or complete accept your view that it was all pre-existing?
 - A. Yes I would say that's correct, yes.

15 CROSS-EXAMINATION: MR ELLIOTT

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- Q. Mr Muller did the owner's insurance cover include loss of rent?
- A. I'm not sure to be honest. No as far as I know, best guess would be no.

 The policy, or the insurance cover, was inadequate to be frank about it.
- Q. The cover for the loss of the property?
- 20 A. The cover for the loss of the property. It was poorly insured.
 - Q. Was the building yellow stickered on those three occasions that you went there?
 - A. First, first time I went there on the 27th it was yellow stickered, yes. I can't recall the other times, can't remember. We had access to the building.
 - Q. You had access?

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- A. The tenant arranged access for us. Although the building was yellow stickered our interpretation of, of the yellow sticker, it said on the sticker that access for assessments is allowed and it's based on that we allowed ourselves in.
- Q. I see. What was the name of the tenant who you spoke to if you can recall?

- A. I have various names. I spoke to a person, Lin -, Lindsay Stolle. I also spoke to a person, Russell. We had a bit of a difficulty initially to get access to, to get hold of the keys but I, I can't confirm which one. One of them accompanied us. It could, could be Russell. I'm not sure.
- 5 Q. Did they say anything to you about the building or the yellow placard in particular?
 - A. Normal practice for us is to not be led by tenants, especially in buildings that is particularly bad maintained, badly maintained because they tend to try and lead you but with all due respect I don't say this person did it. We prefer to do our own thing so we would get access and, and do the inspections, assessment by ourselves.
 - Q. They lead you in what way. What do you mean?
 - A. Well they lead you in a way to, they would point out the cracks and say this has not been here and this has been here and, I mean we, we tried to stay clear from that. We want to make our own assessment of, of the damage.
 - Q. Thank you and just one final question which is a more generic issue and I'm not suggesting any criticism of you here or that this was the case here but just for our information where a loss adjuster, an assessor or insurer becomes aware through these type of enquiries that there may be some danger to a building and, and there are people in it are there any obligations to inform the tenant or a local authority about that danger or do privacy considerations over-rule those?
- A. I can't speak for other adjusters but I would normal do that. In this specific instance I noted the yellow sticker and I simply assumed that the authority's already on it and also Mr Ling was going to do a structural report and tell us exactly what the problem is and how he's going to repair it and we've relayed all that to the building owner and
 - Q. I'm not suggesting that you have failed to do so in this case -
- 30 A. No, no, I appreciate that.
 - Q. I'm just (inaudible 15:07:12) questions.
 - A. No way.

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CROSS-EXAMINATION: MR LAING - NIL

RE-EXAMINATION: MR ZARIFEH - NIL

QUESTIONS FROM JUSTICE COOPER, COMMISSIONERS CARTER AND FENWICK – NIL

5 WITNESS EXCUSED

MR LAING CALLS

STEPHEN JAMES MCCARTHY (SWORN)

- Q. Your full name is Stephen James McCarthy?
- A. Yes it is.
- 5 Q. Do you have a statement of evidence in respect to this building?
 - A. Yes it is.

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Q. Can you start reading at paragraph 6 please.

WITNESS READS STATEMENT OF EVIDENCE FROM PARAGRAPH 6

On 6 September 2010 a rapid, a level 1 rapid assessment was carried out and the building received a green placard, annexure A. A level 2 rapid assessment was undertaken on 7 September 2010 by David Elliott, a structural engineer from Aurecon, annexure B. aftershocks a further level 2 rapid assessment was undertaken by Mr Elliott on 9 September 2010, annexure C. It appears that Mr Elliott was acting on instructions from the tenant when he undertook the inspections on 7 and 9 September 2010 following aftershocks. The 7 September assessment concluded that while the building was in poor state of repair prior to the earthquake the building was currently stable. The follow-up assessment on 9 September 2010 stated that there was no change from the previous assessment. The level 2 assessment forms completed by Mr Elliott and dated 7 and 9 September 2010 do not appear to have become part of the record during the Civil Defence emergency building evaluation process as they do not have additional administrative details completed on the forms. For example, at the bottom of the form there is no (inaudible 15:09:55) property details entered and the inspection ID for office use only has not been completed. The council's records indicate that on 8 September 2010 a

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telephone call was received from Mr Morris North. The record of the telephone call states "Brick and concrete façade badly cracked. Caller concerned it would fall down on pedestrians. Structural engineer says that another significant tremor it could come down. Will require another council check since yesterday's check which was given a green notice

status." Annexure D. Following more aftershocks on 11 September 2010 a further level 1 rapid assessment was carried out and the building received a yellow placard. The assessment form noted that there was a large crack in front façade and parapet. Engineer to inspect and advise. Annexure E. I attach a photo of the yellow placard affixed to the building. Annexure F. I understand that Mr Elliott's rapid assessment forms were not provided to the Council until 15 September 2010. The assessment forms were included with a report that was incorrectly dated 6 September 2010 and an email from Georgina MacRae at St Christopher's Church to Phillip Hector on 15 September 2010. Annexure G. The report considered the building occupiable, however it was recommended strengthening the building. Page 1. In order to change the placard on the building a C PEng certification was required to certify that the danger had been removed. The report did not contain a C PEng certification and, therefore, the report was insufficient to change the placard on the building. I understand that the tenant, Mr North, contacted the Council on 15 September 2010 and Phillip Hector, Senior Building Control Officer in the Building Recovery Office, informed him that Aurecon needed to carry out a level 2 assessment before the placard could be changed from yellow to green. Annexure H. This position was recorded in email correspondence between Mr North and Mr Hector on 15 and 16 September 2010. Annexure I. On 4 October 2010 the Building Evaluation Transition Team - BETT - emailed Mr Elliott advising that the building required C PEng certification that it was not dangerous in terms of Building Acts. Annexure J. On 19 October 2010 an assessment was carried out by the BETT. Due to the cracking in the parapet the yellow placard was confirmed. Annexure K. The assessment recommended that the parapet be checked by an engineer. The assessment form was signed by Mr Ross Cain. An Enforcement Team Notices Cover Sheet completed by Mr Cain on the same day states "Bookshop closed. Letter to owner for confirmation of engineer inspection. Any remedial work required to be carried out as soon as possible. NTF weakened and cracked walls to be made good and

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strengthened. Building consent required and will need C PEng certification." Annexure L. On 26 October 2010 the Council's BETT emailed Mr Elliott outlining the further actions required to change the building status from yellow to green. Annexure M. Noting that a C PEng certification was required. The form of certification at that stage involved a new Council form to be completed by Chartered Professional Engineer rather than a level 2 assessment form. On 5 November 2010 the Council received a C PEng certification from Mr Elliott of Aurecon, dated 3 November 2010. Annexure N & O. The C PEng certification had been altered as Mr Elliott was unwilling to sign off securing work that had not been undertaken. Mr Elliott noted in his email of 26 October 2010 that at his last inspection the building had not sustained any significant structural damage that required repairs prior to occupation. The C PEng certification noted that the condition of the building was not considered to be worse than prior to the earthquake. There appears to have been a discussion, referred to in the email of 5 November 2010, between Mr Elliott and Laura Bronner from the BETT regarding whether an amended C PEng certificate would be accepted by the Council. The Council staff involved appear to have accepted the altered form and relied on the engineer's certification given in the altered form. Annexure P."

- Q. Can I ask you to pause there Mr McCarthy. Could we turn over to your annexure P please and just for the record it's WITMCC0010.34.
- A. Yes.

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- Q. Now that was a form that was used to update information when it came into the Council, whether it was any sort of new form or some event, is that correct?
 - A. Yes it is.
- Q. And I'm going to ask you to look at the first block of the form which it says 'Building Evaluation Transition Team Actions'.
 - A. Yes.
 - Q. And you see there structural engineer's report received.
 - A. Yes.

- Q. And that answers yes. C PEng engineer certified authorised per list.
- A. Yes.
- Q. A yes. CCC structural engineer reviewed report and the answer is yes.
- A. Yes it is.
- 5 Q. CCC Engineer inspection required no. See that?
 - A. Correct.
 - Q. Agreed information supplied yes.
 - A. Yes.
 - Q. And disagrees or requires more information no.
- 10 A. Correct.
 - Q. And then you see a recommendation there, can you see a recommendation certification accepted as per email attached.
 - A. Yes.
- Q. Building can now be changed to green. Now immediately under that doyou see some initials 'EG'?
 - A. Yes.
 - Q. Do you know who that is?
 - A. That's Esther Griffith who is the team leader of our BETT team.
- Q. And I go down the form further where it says 'Completed by (print name)' and there are some initials there. Do you know who that person was?
 - A. That's Laura Bronner. She was an administrative assistant.
 - Q. And going to the next block you see the initials again, is that Laura Bronner again?
- 25 A. Correct.
 - Q. And if you go right to the bottom of the form do you see the words 'C2-EG81'?
 - A. Yes I do.
 - Q. Do you know what that refers to?
- 30 A. That's referencing Esther Griffiths, that's her personal code.
 - Q. So the various team leaders and others had their own code at that time.
 - A. That's correct.
 - Q. If you now come back to your statement at paragraph 20.

- A. Paragraph?
- Q. Paragraph 20.

WITNESS CONTINUES READING STATEMENT

Α. "On 8 November 2010 the Council advised Mr Elliott and Mr Morris by 5 email that the building was considered safe for occupancy, that any placard on the building could be removed. Annexure Q. It does not appear from Council records that a rapid assessment inspection was carried out on the building following the Boxing Day aftershock. The Council's records do not show any further inspections until a level 1 10 rapid assessment carried out on 25 February 2011. Annexure R. Application of relevant legislation and the Council's earthquake-prone policy. The building was considered to be a possible earthquake-prone building in terms of the definition in s 66 of the Building Act 1991. As it appears that no earthquake strengthening was carried out on the 15 building it would have continued to have been regarded as a possible earthquake-prone building on the introduction of the Building Act 2004 and for the purposes of the Council's Earthquake-prone Buildings Policy 2006. After the commencement of the Earthquake-prone Policy 2006 if the building consent application for a significant alteration had been 20 received the building application would have been dealt with in accordance with the policy – see in particular section 1.7. However, no such building consent application was received."

EXAMINATION CONTINUES: MR LAING

- Q. Mr McCarthy I was wondering if we could go back to your annexure Pagain please.
 - A. Yes.
 - Q. I omitted to ask you one question about that. Going back to the top block under building evaluation and transition team actions?
 - A. Yes.
- 30 1520
 - Q. Do you know who the engineer was at that time working or on contract with the council who signed or was involved in this process?

A. I've tried to establish that. I've spoken to Neville Higgs who was leading that engineering team at the time. He was dealing with quite a number of matters at that time. He has no recollection of signing off on this particular job, otherwise I'm not aware of who that structural engineer would be.

CROSS-EXAMINATION: MR ZARIFEH

- Q. Mr McCarthy, in this case as you've heard listening to the evidence, we've got different views of the same or similar damage to an unreinforced masonry building as between engineers or building assessors haven't we?
- A. We have.

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- Q. And do you accept that that could perhaps feed into the observation that Mr Smith made that a level 1 assessment is perhaps insufficient with an unreinforced masonry building following a substantial earthquake like September?
- A. Yes I accept that.
- Q. The 11th of September inspection by Russell Officer and Mr McMillan, am I right in saying that that was as a result of Mr North's call to the council effectively?
- 20 A. Yes it was.
 - Q. Because he rings the council on the 8th of September and concerned about the building and the state of it in the aftershocks.
 - A. Yes.
- Q. And I won't take you through it if you agree, but I think the person that took that call was a Beth Adam. It's recorded on the form as being the person who would have typed out what he said to her?
 - A. Yes.
 - Q. And then she dealt with another council form that you used to progress a customer request. Is that right?
- 30 A. Yes, yes that's right.

- Q. And that customer request would go through, I don't know what the exact process is but in the next day or two presumably it would filter through to whoever organises assessments?
- A. Yes.
- 5 Q. And that's two or three days later as it turns out, Mr Officer and Mr McMillan get told can you go to 7 Riccarton Road and do an assessment.
 - A. The only thing I would add to that is if it was an immediate priority, a danger we would go out straightaway, but -
- 10 Q. Right, well it's obviously graded whatever internally but that's the process and that's the reason they were going?
 - A. Correct.
 - Q. So here on the 11th of September it's we've heard placarded yellow despite two or three if you like really previous green placards, correct?
- 15 A. Yes.

- Q. And when you've heard about those, and you said I think in paragraph 11 that, or rather 14, that Phillip Hector senior building consent officer informed Mr North that Aurecon needed to carry out a level 2 assessment before the placard could be changed from yellow to green, correct?
- A. Correct.
- Q. And you've annexed it and I think we've got it as well in the chronology but there's an email to that effect, right?
- A. Yes.
- 25 Q. And Mr Hector, it follows from the email correspondence, was aware that there'd been previous green?
 - A. Yes.
- Q. But that it had been placarded yellow subsequently and he was also aware I think I'm right in saying that, or the report from Mr Elliott that one page report, one and a bit pages report, that had been forwarded to the council but that in itself was insufficient, wasn't it? It wasn't a CPEng certificate as required or, have I got that right in saying that?
 - A. Yes you are right, that would have occurred about the same time, yes.

- Q. Shall we just quickly turn to the email and check, but this is 0025.1. There's an email from Mr Hector dated 15 September. There it is on the screen. "I can confirm that we've received the copy of the report for your building. As there is a significant chance of further aftershocks and due to this being an earthquake-prone building the structure needs to be made to secure to prevent further damage, and any chance of damage from any adjacent buildings. A level 2 assessment needs to be undertaken before occupation can be resumed." Correct?
 - A. Yes.
- 10 Q. And then Mr North replies to that, and you can see in the middle and then there's another reply back from Mr Hector, "You need to go back to the structural engineers who supplied the report and ask them to do a level 2. They should know what is involved. Aurecon as CPEng engineers will know what needs to be done to facilitate the change of the placard."
 - A. Correct.
 - Q. I just want to ask you a couple of things about that first email from Mr Hector. Firstly he is referring to the significant chance of further aftershocks.
- 20 A. Yes.
 - Q. And due to that building being an earthquake-prone structure it needed to be made secure to prevent further damage. Is that expounding a council policy at the time, or effectively what was council policy?
- A. We weren't requiring earthquake-prone buildings to be upgraded but clearly if there was damage to them that would need to be addressed before we could allow occupation.
 - Q. Well Mr Hector's talking about a building that's been yellow placarded because it's got some damage.
 - A. Yes.
- 30 Q. And he's saying, "As there's a significant chance of further aftershocks and it's earthquake-prone, it needs to be made secure."
 - A. Yes.

- Q. So that was the requirement on the council's part that there needed to be some form of securing. Correct?
- A. That's correct.
- Q. And then he goes onto say a level 2 assessment needs to be undertaken before occupation can be resumed. Is that a council policy or was it that there be a level 2 assessment?
 - A. There needed to be a level 2 assessment to change the designation of the placard from yellow.
 - Q. Right.
- 10 A. So that would have driven that. There was also the issue of any interim stabilisation or repairs that might have been needed
 - Q. Right.
 - A. in the opinion of the engineer, so there's a couple of issues there but a level 2 inspection would follow before, and we would require some evidence that an engineer was satisfied prior to us changing that placard.
 - Q. And are you talking about a CPEng Engineer?
 - A. Yes we are.
 - Q. So someone such as Mr Elliott in this case?
- 20 A. Yes.

- Q. So the level 2 assessment requirement for yellow to green change. Where do we find that, where's that set out other than that email?
- A. I believe that's in the building evaluation system that guidelines.
- Q. In this report? Is this the one the council's done for the Royal Commission?
 - A. Yes, yes.
 - Q. Can you, I'm not doubting you, I'm just not sure.
 - A. Yeah, look I would struggle to find that -
 - Q. Okay, maybe in the break if you can have a look.
- 30 A. but I think it's, it was generally accepted that an in-depth evaluation or investigation needs to be undertaken before a and a level 2 gave us some surety, before the placard was changed.

Q. Okay, well – Mr Laing's just referred me to, not sure what page it is, but it's an appendix, but –

MR ZARIFEH ADVISED APPENDIX 3

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JUSTICE COOPER:

So is appendix 3 to the council's report to the Royal Commission on the process followed to inspect buildings after the September earthquake, and that has paragraph numbers. What paragraph number?

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JUSTICE COOPER ADVISED PAGE AFTER PARAGRAPH 21

MR ZARIFEH ADDRESSES JUSTICE COOPER:

So it's 002F3.72. Just get it brought up.

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JUSTICE COOPER:

- Q. Well that says a level 2 rapid assessment or detailed engineering evaluation required before unrestricted use. Is that right?
- A. Yes.
- 20 Q. So how, I suppose how were people made aware of that?

MR ZARIFEH ADVISES JUSTICE COOPER THAT WAS HIS NEXT QUESTION

25 COMMISSION ADJOURNS: 3.32 PM

COMMISSION RESUMES: 3.47 PM

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

Q. Mr McCarthy the appendix 3 that we were looking at it says, "Level 2 rapid assessment or detailed engineering evaluation," correct? So was this, this was part of the guidelines that the council were using, the structural engineer's guidelines?

- A. (no audible answer 15:47:26)
- Q. Yep, and this was in the emergency period?
- A. Yes, that's correct.
- Q. Hence the 15th of September I think it was, Mr Hector's email was within that period?
 - A. It was.

- Q. Did it change after that? Was that when the CPEng form and those four, three pages that preceded it came in?
- A. Yes it was developed between the, we had representatives from the
 Department of Health, our legal advisors and some of our building people working to, to develop that.
 - Q. Okay but leaving aside exactly what was required is it fair to say the counsel was looking for something reasonably detailed from a CPEng engineer, whether you call it a level 2 assessment or a detailed engineering evaluation or a CPEng certificate to rely on before the colour was, the placard was changed?
 - A. Certainly the, the key thing was the CPEng engineer was satisfied and his certificate was the primary thing we were interested in but that needed to be supported, certainly.
- 20 Q. Right and remember one of the forms I referred Mr Elliott to talked about accompanying it with a report and photographs. Was that a requirement?
 - A. At the time it was, yes.
 - Q. So when Mr Elliott sent in that CPEng certificate –
- 25 A. Yes.
 - Q. it doesn't appear to have been sent in with any photographs or any report. You wouldn't be referring to that first report on the, after the first two visits?
- A. I believe that was appended to. That would have been, formed part of the total file that was considered at that time.
 - Q. Right but that related to events before the yellow placarding. Surely the council would want a report subsequent to the yellow placarding?

- A. Yes that's, that's right. We, I don't think we were aware of when he did his final inspection at that time.
- Q. Well that lead, that report is actually dated 6th of September isn't it? I mean it must be incorrect because it refers to inspections on 7th and 9th?
- 5 A. Yes, that's right.
 - Q. So the report that he, if that was the report that report was clearly before the yellow placarding?
 - A. I think the yellow placarding went on, on the 11th didn't it?
 - Q. Yes.
- 10 A. Yes and then the report I think was received after that but I, I take your point. It relates to inspections before the yellow placarding.
 - Q. All right and I appreciate you weren't dealing with it personally but in terms of the council policy there should have been a more up-to-date report than that one if that was the one that was relied on?
- 15 A. Yes that would be fair.
 - Q. And, or there should have been a level 2 assessment, internal and external with at least a form or something indicating that had happened?
 - A. Yes that's right.
- Q. And looking at the documentation we looked at with Mr Elliott there should have been photographs as well it said. Was that a requirement that was enforced or not?
 - A. It appears it wasn't enforced at that time.
 - Q. Was not. Okay. The CPEng material then superseded the emergency period, correct, it came after it?
- 25 A. Yes it did.
 - Q. That's why there's no reference to level 2 on that form? I didn't see reference to a level 2 assessment being a requirement on that form, correct me –
 - A. That's right, yes, I think you're correct.
- 30 Q. And you've referred us to what is annexure P to your brief and we've got it on the system as 0010.34 and that's the cover sheet, remember
 - A. Yes.
 - Q. Mr Laing referred you to?

- A. Yes, that's right.
- Q. So is that what Laura Bronner would have completed as it says, "completed by L B," at the bottom?
- A. Yes.
- 5 Q. That's what she would have completed. Obviously on the 8th of November a short time before she sent the email saying that the building could go to green?
 - A. Yes.
- Q. And we heard from Mr Elliott that Laura Bronner was the one he dealt with.
 - A. Yes.
 - Q. She's not an engineer is she?
 - A. She's not.
 - Q. She's just an admin employee. Is that correct?
- 15 A. Correct.
 - Q. So no training at all in, as a building assessor or engineer or anything like that?
 - A. That's correct.
- Q. And the council policy at the time then would have been for an engineer to look at the CPEng Certificate that would have come in from Mr Elliott in this case?
 - A. Yes.
 - Q. Now was that something that was enforced?
- A. I think the form indicates that structural engineer has reviewed that report and Esther Griffiths has signed off on it.
 - Q. Okay. Well let's just flick through that. So the box is structural engineer's report received, yes.
 - A. Yes.
- Q. So do you say that's the report dated 6 September, we've just dealt with?
 - A. If it's dated, yes, it is dated 6 September, yeah.
 - Q. There's no other report is there?
 - A. Yeah, that's right.

- Q. So that's a report that was obviously inadequate as we've discussed?
- A. Yes.
- Q. And then the CPEng certifies, that's just checking that Mr Elliott was CPEng certified?
- 5 A. I think it was rather more than that, oh, yes, yes, yes, yes.
 - Q. Right.
 - A. Yep.
 - Q. And then the next one is CCC structural engineer reviewed report, yes?
 - A. Yes.
- 10 Q. So that's someone who's employed or on contract with the council who's a structural engineer reviewing the report. Correct?
 - A. Correct.
 - Q. So when you say report you're referring to the report in the top box?
 - A. Yes.
- 15 Q. So, and from you said we don't know who that was. Neville Higgs was in charge of the engineers, is that right, at that time?
 - A. Yes. Yes.
 - Q. He's been asked and he, correct me if I'm wrong, he can't recall doing it, he doesn't think he did it but we don't know who did –
- 20 A. That's correct.
 - Q. Assuming someone did?
 - A. Yes.
 - Q. So we've got no way of knowing that?
 - A. That's right.
- 25 Q. And so is there not an initial required to ascertain who the engineer is on the form. I mean there's no, there's like a space for it but
 - A. It clearly wasn't initialled.
 - Q. All right. Would it normally be or not?
 - A. You would expect it to be.
- 30 Q. You've seen other -
 - A. Sorry –
 - Q. forms where it is initialled?
 - A. I can't say I have.

- Q. Perhaps you mean it would have been good to?
- A. Yes.
- Q. Right I'm looking at the evaluations, report into building safety evaluation from the council on page 28. This is under the section, Process to Update the Building Status, Post State of Emergency. In the second to last paragraph on page 28 it says, "The building owner was required to submit the CPEng certification form to the BETT."
 - A. Yes.

10 JUSTICE COOPER ADDRESSES MR ZARIFEH – REPORT CONFIRMED AS AT PAGE 28, 2F 3.28.

JUSTICE COOPER:

So it can be displayed for the people in the back of the room.

15 CROSS-EXAMINATION CONTINUES: MR ZARIFEH

- Q. So the second to last paragraph, that's what I was reading, "The building owner was required to submit the CPEng certification form to the BETT. A BETT engineer would review the form and the files held for the relevant building."
- 20 A. Yes.

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- Q. "If the BETT engineer was satisfied that all dangerous features had been addressed adequately then the building's status could be changed. If the BETT engineer had any residual concerns about the building the BETT engineer would contact the building owner's engineer to discuss this before allowing the building's status to be changed."
- A. Yes.
- Q. So that was, I presume that was the policy at the time?
- A. Yes it was.
- 30 Q. Well in this case we don't know who the engineer was from the BETT team?
 - A. No we don't.

- Q. And on the form all we appear to know that the engineer has reviewed that report that came in?
- A. Yes.

- Q. We don't know for sure if the engineer reviewed the CPEng certificate, do we?
 - A. We don't know for sure but one would imagine he would have.
 - Q. Why would one imagine that?
 - A. That was the key part of the process. Having a CPEng certificate was critical to changing the placard.
- 10 Q. Right. And Mr Elliott said you heard him this morning that he thought he'll change the form, he'd spoken to Laura Bronner, she obviously didn't know anything about building safety but she presumed he discussed it with him [sic]. He thought he would change the form, put it in and he expected to hear from a council engineer didn't he?
 15 That's what he said.
 - A. That's what he said.
 - Q. But he never did. Would you not expect if a council engineer had viewed the CPEng form as altered, he might well have considered that this was one of the ones that you would have residual concerns with and he would have contacted him?
 - A. Equally he may have decided that he was dealing with a CPEng engineer and that he could be satisfied on reasonable grounds that the CPEng engineer had done what was needed to be done on that building to clear it and to change the placard.
- 25 Q. So do you think that given the ambiguities that were pointed out to Mr Elliott on that form that a council engineer could be satisfied?
 - A. I think he could have reasonably been satisfied based on the professional qualification of the engineer. The whole industry depends on CPEng engineers.
- 30 Q. But what's the point in having a council engineer that has to be satisfied that all the dangerous features have been addressed adequately and that if he's got any residual concerns he's got to contact the owner's engineer. Why have that there and why not just say you need a CPEng

- certificate as long as it's signed by someone who's qualified in that way then you've just rubber stamp it?
- A. I can only imagine that our engineer who reviewed it didn't have those concerns.
- 5 Q. So would there not be any other record other than this cover sheet to indicate the engineer because I know I have asked -
 - A. That is as complete a record as we have.
 - Q. And the I think I'm right in saying it's in Laura Bronner's writing, handwriting, is that right?
- 10 A. Yes.
 - Q. So she's written certification accepted as per email attached?
 - A. Yes.
 - Q. Building can now be changed to green. And then it's got report authorised by and you said that was Esther Griffiths?
- 15 A. Mmhmm.
 - Q. She's not an engineer is she?
 - A. No she's not.
 - Q. So she wouldn't have been the engineer that did the, reviewed the report dated 6 September would she?
- 20 A. No she was in charge of the team of engineers and administration people that were dealing with all of these buildings.
 - Q. Okay. So just so I understand it correctly then this form was completed by Laura Bronner?
 - A. Yes.
- 25 Q. And let's assume that the engineer whoever it was has had some input.
 - A. Yes.
 - Q. It might have only been verbal and Laura Bronner's completed all these and then Laura Bronner's given it to Esther Griffiths who puts her initial on it. Is that what happened?
- 30 A. Alternatively Esther Griffiths might have got the file. She might have gone and spoken to the engineer and signed off on a job at that point and handed it to Laura who completed the form.

- Q. And I think Esther Griffiths, I asked about this, is currently overseas isn't she? She's left the council anyway hasn't she?
- A. She has.
- Q. But is currently overseas?
- 5 A. On the point of coming back I believe.
 - Q. Right. But you're just surmising that could have happened?
 - A. Yes I am.

- Q. Was that, have you got any experience to know whether that would happen you know the person authorising it would have that involvement?
- A. I'm confident that Esther Griffiths would have run it pass the structural engineers at the time.
- Q. Okay. So if the council had been able to talk to Esther Griffiths we might have been able to find out who the engineer was or have you made that enquiry?
- A. We haven't made the enquiry but I'd have to say that she was dealing with many hundreds of buildings. She may not recall.
- Q. Okay. So we can't really go any further with that point then? We don't know. The answer is we don't know?
- 20 A. That's correct.
 - Q. What we do know is that that engineer, assuming one did look at the form and deal with it, can't have gone further than the amended form itself and the report dated 6 September?
 - A. Yes.
- 25 Q. Boxing Day there was no inspection by the council of 7 Riccarton Road was there?
 - A. No there wasn't.
 - Q. I read in the review report that arterial routes including Riccarton Road were checked but is that not necessarily every building?
- 30 A. We didn't check every building. It was, I think they targeted certain areas. They didn't check every CBD building either.
 - Q. What about unreinforced masonry buildings, were they targeted or not?
 - A. Not specifically.

- Q. You might have heard some evidence from Mr Smith about the removal of the linings, the ceilings and wall linings in the upstairs at 7 Riccarton Road?
- A. Yes.
- 5 Q. Do you know from the council records whether any consent was obtained for that?
 - A. There was no consent for that.
 - Q. Would one have to be obtained to do that?
- A. You can remove linings provided they're not structural. I'm a little unsure as in the context of the work they were doing whether there was structural elements or structural work undertaken. I think the engineer for the owner may be able to assist you there but you know no knowledge from council's point of view.
- Q. Mr Smith made the comment I think that there didn't appear to be anyconsent and you say there wasn't.
 - A. That's right.
 - Q. Would the council have had any objection to that given that the timing and the fact there were aftershocks, or can you not say?
- A. Certain works were exempt. Engineers know what work is exempt. If it was a structural element there was a requirement to tell us and to obtain a consent.
 - Q. Right. And this building Mr Smith said was really in its original form in terms of any structural strengthening?
 - A. Yes.
- Q. And you've been here we've had reference to these photos taken back in 1993 and there was a seismic survey which categorised it as a 13B which recommended remedial action within two years.
 - A. Yes.
- Q. Now again I don't want to go over the same ground that you've been asked about already in relation to other hearings except that I'll get you to confirm that nothing was done after those surveys despite the obvious cracking to parapets that were seen and we can see the

photographs and despite a recommendation that remedial work can be taken within two years there was no action as a result of that was there?

A. That's right.

CROSS-EXAMINATION: MR ELLIOTT

- 5 Q. How can it be possible Mr McCarthy that the Christchurch City Council would allow that type of hazard to remain there for about 20 years without taking any action?
 - A. I'm sorry what sort of hazard are you talking about?
- Q. The hazard Mr Zarifeh has just referred to which was identified back in101991.
 - A. That there were cracks in the parapet?
 - Q. Would you like to see the form, would that assist?
 - A. No I'm sure there's, yes there were cracks. I'm not, I'm not sure that they affected the structural integrity of the building.
- 15 1607
 - Q. Right so the seismic survey of 1991 identified parapets as a hazard as Mr Zarifeh pointed out with the recommendation of action within two years and you've said no action was taken.
 - A. That's right.
- 20 Q. And your answer as to why is it may not have affected the structure.
 - A. Mmm, yes.
 - Q. I've already asked you this and I appreciate you've answered it but Mr Bush's family are here today and interested in this historical identification of a hazard.
- 25 A. Yes.

- Q. I asked you about, given that type of hazard identification in the past and no action, what's the Council's position moving forward and I think an answer you gave yesterday or the day before was that the Council doesn't necessarily identify cracked parapets as dangerous. Is that right?
- A. Specifically the responsibility doesn't rest with us to identify it as a hazard or dangerous. Clearly if it is very apparent we will take that up

but the primary responsibility for buildings rests very much with the owner. The owner has to keep people safe. The Council will assist in whatever way we can and, clearly, if there's an apparent danger that we will take that up with the owner. The owner assumes primary responsibility.

Q. But the Council is now aware, is it not, of Associate Professor Ingham's findings that 84 percent of unrestrained parapets suffered full or partial collapse in February and 44 percent of restrained parapets suffered similar damage. Given that does the Council not see any role for itself in addressing the issue of parapets going forward?

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- A. Oh clearly we want our buildings to be safe. We will respond to that information and, clearly in the past, in the 70s and the 80s, we certainly took up that mantle and approached building owners and a lot of parapet strengthening was done, not on this building sadly, but it was done on a large number of other buildings.
- Q. From this point forward will the Council approach building owners to strengthen unreinforced parapets?
- A. Clearly that's going to have to be a priority going forward.
- Q. Has a decision been made at this point about whether that will happen.
- 20 A. I think we're awaiting the findings of the Royal Commission before we define all of the priorities but that's clearly going to be one of them.
 - Q. There's no need to await the findings of the Royal Commission on that particular issue is there really? Associate Professor Ingham has identified it.
- 25 A. Yeah. The, all commercial buildings in the city are required to undergo a detailed engineering evaluation before being re-occupied. So this is a CERA, CERA has that legislative authority to require that so they're working very closely with us. So, clearly, if there's a defect or a design fault or a danger in a parapet that will need to be addressed.
- 30 Q. The information on the seismic risk survey forms and so on that was on the Council file, would that have been available to those who were carrying out inspections post-September 4?

- A. Immediately following the earthquake it wouldn't have been. There was a difficulty obtaining Council records because of damage to the holding facility but subsequently it would have been. Probably post-November.
- Q. Would that information and also the fact that the building was possibly earthquake-prone have been available to those Council officers, including the engineer who agreed to allow or agreed to accept the form from Mr Elliott?
- A. By November it probably could have been yes.
- Q. Are you able to say whether they took into account the possibility that the building was earthquake-prone?
 - A. I think clearly it was potentially earthquake-prone because it was unreinforced masonry but there's a whole picture here. Clearly the building sustained only moderate damage in the earthquake in September so that would have been all part of the picture that the engineer would have considered and, indeed, I think Mr Elliott looked at it in that context as well.
 - Q. Can I just have document WITNCC0010.29 please. I'm just going to ask you a question or two about the documentation from the Council, of which this was one page. You'll be familiar with it where the Council set out option one and option two for the approval of the removal of a red or yellow sticker.
 - A. Yes.

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- Q. And I'm just asking about the genesis of the Council's position on that and the section which seems to deal with that is under the heading 'Note' in the centre of the page there. There's a reference to s 121(1)(c) of the Building Act and I'll read out the Building Act as amended by the order in Council.
 - A. Yes.
- Q. You'll be familiar with this as well. "A building is deemed dangerous for the purpose of this Act if there is a risk that the building could collapse or otherwise cause injury or death to any person in the building as a result of an earthquake that generates shaking that is less than a moderate earthquake". That was the amendment.

- A. Yes it was.
- Q. And is it correct that the Council's position was in framing its conditions for the removal of yellow placard and a red that it interpreted s 121(1)(c) in this case.
- 5 A. Yes.
 - Q. As meaning that when the conditions for removal of the red and yellow safety notices are met the risks that the building could collapse or otherwise cause injury or death to any person in the building as the result of an earthquake that generates shaking that is less than a moderate earthquake is satisfied.
 - A. Yes.

- Q. That test would need to be satisfied.
- A. Yes.
- Q. For the yellow placard to be removed.
- 15 A. Yes.
 - Q. The wording 'less than a moderate earthquake', a moderate earthquake is a threshold for an earthquake-prone building of 33 percent of NBS, is that right?
 - A. That's correct.
- 20 Q. But this section was directed to an earthquake of even less than a moderate earthquake.
 - A. Yes. So September was a moderate earthquake.
 - Q. Right but the section and the Council's position was directed to earthquakes even less than that.
- 25 A. Yes.

- Q. If we turn to the form that the Council accepted, which is MCC0010.33, isn't it patently obvious from the amendments to that form and, in particular, the wording 'the condition is not considered worse than prior to earthquake' that the Council was being asked to make a major departure from the policy which it had formulated based upon the amendment to s 121 of the Building Act?
- A. That's not obvious to me. Perhaps you could explain that.

Q. Well were you here when Mr Elliott gave evidence earlier on and I think he accepted that the wording 'the condition is not considered to be worse than prior to the earthquake' reflected the test he was applying of looking at earthquake damage, seeing whether there was any damage and, if not, allowing a green placard.

A. Yes.

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Q. Whereas the point I make, am suggesting to you is that the Council's test of looking at potentially dangerous features and structural integrity and so on arising from the availability of the power under the Act is a different test of looking at the capacity of the building to cope with earthquakes which were, indeed, less than moderate. Two separate tests, would you agree?

A. So the interpretation that I put on that, that form, is that Mr Elliott said the building in September sustained a, survived a moderate earthquake. The strength of the building is no less than it was in September and the essence of this is it will withstand a moderate earthquake. Or less than moderate earthquake.

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Q. That's the inference the council drew from this form is it?

20 A. I can't speak for the structural engineer but that's certainly the inference I take from it.

Q. Well all right well I just put this proposition to you to reply to really. Do you agree that the council office has made a serious mistake in accepting this amended form rather than requiring compliance with what appeared to be the council's policy following the amendment to s 121 of the Building Act?

A. I don't accept that.

RE-EXAMINATION: MR LAING - NIL

30 QUESTIONS FROM COMMISSIONER FENWICK - NIL

QUESTIONS FROM COMMISSIONER CARTER - NIL

JUSTICE COOPER:

- Q. Can I just pursue this issue that Mr Elliott and to a certain extent Mr Zarifeh have pursued with you a little further and if we could go to your attachment P which is suffix .34 in this series which is the form that was filled in by Ms Griffiths and Ms Bronner. Now the most important part of this form it seems to me is that which requires the council engineer to say whether he or she agrees or disagrees with the information that's been supplied.
- 10 A. Yes.

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- Q. And the information that's been supplied in this case is I think the report wrongly dated the 6th of September from Mr Elliott, but in fact dated should have been dated on the 10th of September.
- A. Yes.
- 15 Q. And then the form that he signed as the CPEng engineer.
 - A. Yes.
 - Q. Now what is said on your attachment P is that the engineer, whoever it was, agrees with the information supplied.
 - A. Yes.
- Q. Well if we look at first of all the wrongly dated letter of 6 September which is suffix .17, there's a statement that the building has sustained negligible damage or there's a heading to that effect but there's also a reference to brick cracking and the statement is made that the building is over 100 years old and has not been well maintained. Some damage, it is said, may have been existing before the event.
 - A. Yes.

- Q. So put that information alongside, or go now to the certificate that Mr Elliott gave which is suffix .33. Now this printed form has three main paragraphs, A, B and C. C is crossed out so it's no use asking whether one agrees with that, because the author of the form's not proposing that statement be agreed with.
- A. That's right. Yes.

- Q. Go then to paragraph A. "Where the structure integrity and / or structural performance of the building (or part of the building) was materially affected by the Darfield earthquake or any aftershocks to date, interim securing measures have been taken to restore the structural integrity and performance of the building to at least the condition that existed prior to the earthquake of 4 September 2010."
- A. Yes.

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- Q. Now what was there in any of the information available which would have allowed the engineer to agree with that statement, knowing as we do that no interim securing measures have been taken?
- A. I think that's a problem with this form insofar as it was always anticipated I think that a yellow or a red placard would generate some sort of physical works, but what we've heard I think is that this building, the structural integrity of it hasn't been affected. There was no observable damage that in the CPEng engineer's considered opinion affected the structural capacity of the building, so there was no work required and I think that's the problem that we had with this form is that, and it was a new form, that we were anticipating some work to shift it from a yellow and a red back to a yellow or a red back to green, so it's an issue for that form, we accept that.
 - Q. Well were you contemplating that yellow stickers would be issued in respect of buildings which hadn't suffered any damage of a structural kind, or did the system presuppose that before a building was yellow placarded there would be an issue concerning its structural performance?
- A. I think in the world that we were living there was a rapid assessment going on and the rapid assessment teams were making a judgement as to whether the building had been affected so that was a so precautionary approaches to issue a yellow and depend on someone to go in and do an in-depth evaluation of the building to change that from that status from a yellow or a red back to a green if indeed that was and so the basis for our allowing that to happen was that there was a

- structural engineer said, "the structural integrity of this building hasn't been affected."
- Q. But I think you accept that in this case the evidence available to the council was that the assessment made, the first assessment made by
 Mr Elliott pre-dated the allocation of a yellow placard to the building. That's right, isn't it?
 - A. I accept that.
 - Q. So wasn't the effect of agreeing to his to alter the yellow placard to green, setting on one side the fact that yellow sticker had been issued subsequent to that inspection, and actually confirmed on a subsequent occasion because the building, the yellow status was confirmed by Mr Kain's inspection which came on the 19th of October.
 - A. I think between the 11th of September and the 19th Mr Elliott undertook another inspection.
- 15 Q. Yes, but it wasn't a level 2 inspection.
 - A. No it's (overtalking 16:26:48).
 - Q. Wasn't.
 - A. Well it was purported to be a level 2 inspection. It was what we've heard today is that he went round the outside of the building.
- 20 1627

- Q. Well why do you say it purported to be a level 2 inspection?
- A. I'm looking for a copy of his report leading me to that conclusion.
- Q. Is that suffix .17 your exhibit or your attachment, part of your attachment
 G. Because that's the original wrongly dated 6th of September
 document isn't it?
 - A. I'm sorry I may have mis-interpreted but I understood Mr Elliott went there between having heard that the yellow sticker had been affixed to the building, that he went there before he sent his certificate to us. That was my belief.
- 30 Q. I think that's right but what I'm having difficulty with is your statement that it was for the purposes of a level 2 inspection and that that is what he told the Council. So I mean if you're right can you point me to some

- document from which the Council could infer that on that subsequent occasion he went inside the building.
- A. No, well the evidence this morning was that he didn't go inside the building.
- 5 Q. Yes but -
 - A. But I can't direct you to that document, I'm sorry sir. I'm not certain that Council has it.
 - Q. Sorry?
- A. I'm not certain that Council has that record from Mr Elliott of the latter inspection.
 - Q. All right well let's go back to suffix 33, Mr Elliott's certificate, and have a look at paragraph B. You can't say that the Council engineer could have agreed with the information supplied on the printed form can you, that potentially dangerous features on the building, such as parapets and walls, have been removed or secured?
 - A. There was no physical works to effect that, that's correct.
 - Q. So the only part of that paragraph with which the Council engineer can have been agreeing is the handwritten assertion 'the condition is not considered to be worse than prior to the earthquake', is that right?
- 20 A. That's correct.

- Q. Now given that this building has been yellow stickered and that status has been confirmed in a subsequent inspection does the Council say, in this case, that it was legitimate without any further inspection being carried out for this statement by Mr Elliott to be accepted as an opinion to be relied on without any further enquiry?
- A. That's clearly what happened sir.
- Q. Is that an acceptable state of affairs in your opinion?
- A. I think it could have been done better. I think it could have been, there could have been more support for that decision but at the time that was the decision that was made.
 - Q. And the effect of it was, wasn't it, to set the yellow sticker on one side on Mr Elliott's say so?
 - A. Yes.

- Q. You were really, or the engineer was really accepting a proposition, effectively, that the yellow placard should never have been issued. That's the long and the short of it isn't it?
- A. I believe it is.
- 5 Q. Was there a, changing tack, was there a clear Council policy that where a yellow placard was fixed to a building and there would be no occasions when consideration should be given to cordoning off the building, putting protective barriers in front of it so as to stop people going too close to the building or was that kind of protective measure reserved only for cases where there had been a red placard?
 - A. There was no formal policy. In fact a number of parts of buildings that had been yellow placarded were cordoned off on occasions I believe. In fact, if I recall I think, St Asaph Street that we talked about a couple of days ago was exactly in that situation.

15 **RE-EXAMINATION: MR LAING – NIL**

QUESTIONS FROM COMMISSIONERS FENWICK & CARTER - NIL

WITNESS EXCUSED

MR ZARIFEH CALLS

DAVID YAN (AFFIRMED)

- Q. Mr Yan can you give the Commission your full name please.
- A. My name is Yan Kim Min.
- 5 Q. And we've heard reference to a David Yan. Is that you?
 - A. That's me. I've been known as David Yan since five years old.
 - Q. Are you one of the owners or the owner of the building that was a 7 Riccarton Road?
 - A. I'm a joint owner.
- 10 Q. Joint with who?
 - A. My two brothers and sister.
 - Q. How long have you owned the building?
 - A. Probably since about 1980 or just a little bit before, round that area.
- Q. And in the time you've owned it has there been any earthquakestrengthening done to your knowledge?
 - A. No. none.
 - Q. Were you aware of your building being what they refer to as unreinforced masonry?
- A. Um, that term I wasn't familiar with but since I've been away from New Zealand since about 1990 and on returning there was in the news around about 2009 that, you know, old brick buildings needed to be reinforced and there was about two categories that had to be done in a 15 or 30 year period or something. That was on the news.
- Q. You might have to come a bit closer to the microphone I think. So you said roundabout 2000 and?
 - A. 2009 or 2010.
 - Q. 2009 you were aware of some publicity of the need to reinforce older buildings.
 - A. Yes.
- 30 Q. Did you think about doing anything about your building then?
 - A. Not at that time.
 - Q. Have you ever thought about it?
 - A. Well since the earthquake we had.

- Q. Well I just want to ask you then about the events after the 5th of September earthquake, 4th of September earthquake. Were you here then?
- A. I was here.
- 5 Q. And were you in charge as the representative of the owners of looking after the building or not?
 - A. For insur-, making access to the property for insurance and things like that yes.
- Q. You did that and we've heard that it was tenanted out at the time as abookshop.
 - A. Yes.
 - Q. And Mr Morris North, was he the tenant?
 - A. Yes.
 - Q. Representative of the tenant.
- 15 A. Representing St Christopher's book.

- Q. Okay. So what actions did you take following the 5th of September to make sure your building was safe?
- A. Well we did contact the insurance company and as Fritz Muller had said

 he you know we visited the place and to initiate insurance claims and things like that to
 - Q. Right. Why did you have to make insurance claims?
 - A. Well we noticed some cracking around the outside and also there was a lean on the front wall.
- 25 Q. Right. Have you been in Court when Mr Muller was giving evidence?
 - A. Yes, yes.
 - Q. So you saw the photographs he took?
 - A. Yes I saw those.
 - Q. And were you there that day?
- 30 A. Those photographs would have been taken in his September visit. I met him
 - Q. You were there in the later visit?
 - A. The second and third visit.

- Q. All right. But those photographs did they reflect the damage that you're talking about?
- A. Most of his photographs were showing bad maintenance. You know the property had been unmaintained but that would have reflected part of it yes.
- Q. Right. And you talked about cracks as a result of the earthquake.
- A. Yes. Well I didn't know when the cracks happened but you know I thought they were earthquake related.
- Q. Right well Mr Muller had a different idea didn't he?
- 10 A. Yes.

- Q. And you didn't agree with that?
- A. He has a valid point but the main reason why we called him back was because we noticed that the parapet had moved away from the roof.
- Q. When had you noticed that? When did you first notice that?
- 15 A. I think sometime after the second visit and before the third. I believe I was up there looking around and I noticed there was light coming through a manhole.
 - Q. Right is that the photo where he's got the pen next to the wall is that the one you're talking about?
- 20 A. I'm not sure exactly where that photo is.
 - Q. 0051.3.
 - A. I'm not sure exactly where that photo was taken. I can't remember exactly.
- Q. Right well he said that that was upstairs on the east side and it showsthe white wall of the façade leaning out.
 - A. Well I do, where I saw the crack was above the middle window. The three windows across the front it was above the middle window.
 - Q. So was this another crack?
- A. I'm not sure if it was the same crack or another crack but we did point it out to him on the third visit.
 - Q. Right. Because this was taken in his first visit I think he said.
 - A. Yeah, yeah.
 - Q. Right. So you weren't present then?

A. No.

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- Q. So you don't recall seeing this crack?
- A. I don't know. I'm not even sure which wall it is.
- Q. Okay well he said that he discussed how the façade had moved out with you and Mr Ling correct?
 - A. And Mr Ling gave an explanation of what he thought was earthquake related.
 - Q. And Mr Muller didn't entirely accept that?
 - A. Didn't sound like.
- 10 Q. And Mr Ling was to write a report if he wanted to substantiate that wasn't he?
 - A. Well we were in the process of getting designs and things like that to quantify it.
 - Q. You were did you say?
- 15 A. Well I think I sent you drawings of work that we tried to -
 - Q. Right Mr Muller said Mr Ling's report never arrived.
 - A. Hasn't been done.
 - Q. Hasn't been done right. Okay. Well so are you able to tell us what damage was there before the September earthquake and what wasn't or not?
 - A. Well we believe that the crack on the lean on the wall was earthquake related. I agree with the photographs that you know there was in a pretty rough state before the earthquake.
- Q. Right but you're not sure if it's the crack we're looking at in that photograph? Was that there before the earthquake or not?
 - A. I can't say.
 - Q. Right.
 - A. Because I can't tell by the, I can't remember that particular wallpaper.
 - Q. Okay –
- 30 A. Which wall it was.
 - Q. Did you see some evidence of the façade leaning out that you hadn't seen before the September earthquake?
 - A. Evidence that the façade -

- Q. Well you said that the leaning out as I understood it was earthquake related.
- A. Well the, as I said the brick work had pulled away from the roofing iron and I'm pretty sure that wasn't there before from memory.
- 5 Q. So is this from looking internally or externally?
 - A. From the inside there was an open manhole in the hallway and looking up through the manhole you, there was a slit of light where the flashing had pulled away from the brick.
 - Q. Did you point this out to Mr Muller?
- 10 A. Yes.
 - Q. Because he didn't mention that did he?
 - A. No.
 - Q. And you're sure you did?
 - A. Positive.
- 15 Q. And how can you be sure that that wasn't there before the earthquake?
- A. Well as Robert explained to him on the day of the November inspection that, well the place was leaking pretty badly. There was a lot of water coming down through the roof because the roof had rusted through so there was a lot of catchment buckets and you know fish boxes and yellow recycle bins and things like that up there collecting water so it didn't go down to the shop below. On that north wall, on the front there was no water damage or anything so it didn't show any weather coming through the roof there or water coming down that wall and that was the explanation that Robert had given him on the, Mr Muller.
- 25 Q. The cracks to the façade were they earthquake related or any of them?
 - A. I don't recall. I'll just have to go by what Mr Smith said this morning that it was there and it may have extended.
 - Q. Right. Well the reason I'm asking you is it's because your building.
 - A. Well as I said I don't remember.
- 30 Q. Right. So what the biggest concern you had was the façade was leaning out. Is that fair?
 - A. Yes.

- Q. You were aware were you not that Mr North was in the building as a tenant at September, in September?
- A. Yes.

- Q. Right and he was concerned about whether or not he should be in there?
 - A. I didn't know that because it wasn't conveyed to me. The first time I met Mr North was probably about a week or so after the earthquake. At the time –
 - Q. What do you mean the first time you met him? Did you not know him?
- 10 A. No, no first time I met him after the earthquake. Yeah. Basically at the time the building was already yellow. I assumed that it was yellow right through.
 - Q. Right well we've heard it was yellow on the 11th of September so you must have bumped into him after the 11th correct?
- 15 A. It would have been.
 - Q. And he told, so you hadn't had any contact with him before that?
 - A. No.
 - Q. But he told you that it had been yellow stickered?
 - A. Yes.
- 20 Q. Did you go to the building with him and have a look?
 - A. Yes in fact I called him because I wanted to go through and have a look at the, at the building.
 - Q. Right. So you hadn't seen it before then since the earthquake?
- A. Well probably drove past it. It was all yellow at the time so we didn't have any physical access to it. It was all locked up.
 - Q. Right. So we've heard from Mr Elliott and others that it was initially green stickered. The first week it was green up until the 11th. You weren't aware of that?
 - A. I didn't know. I don't remember.
- 30 Q. Well surely if it's your building you would go in and check on the damage soon after the earthquake, wouldn't you? Were you not worried about it?

- A. It wasn't I wasn't worried about it. At the time the city was more or less great confusion. I didn't want and the news, advice on the news was that you know you shouldn't be travelling around too much.
- Q. Okay.
- 5 A. So
 - Q. So you bumped into Mr North. He tells you it's been yellow stickered.
 - A. No I think I called Mr North to arrange access.
 - Q. Okay. And he took you to the building or you went with him to the building?
- 10 A. No we met at the building.

- Q. Okay and so this is after the 11th, when it's been yellow stickered?
- A. Yes.
- Q. So it's not open for business?
- 15 A. No.

- Q. And what damage did you see then?
- A. Well there was cracking on the outside -
- Q. Had you seen that before?
- A. As I said I don't remember.
- 20 Q. Okay. Did you not go there very often?
 - A. Well I was there, in fact during the early part of 2010 before the earthquake we, I'd been there working on re-roofing part of the building.
 - Q. So do you do your own maintenance?
 - A. Well when I came back my brother told me that, you know, Morris was wanting to get some of the, you know, to stop the water leaking.
 - Q. Right. So did Mr North on that visit to the building did he point out cracks in the building?
 - A. Yes he did.
- Q. And so he pointed out cracks that he said weren't there before the September the 4th earthquake?
 - A. Yes.
 - Q. And how many cracks did he point out to you that were not there?

- A. I think the main one that he was pointing at when he was making that comment was the one on the north-west corner that was highlighted by Mr Smith.
- Q. So the one on the return wall, at the top?
- 5 A. Yeah, yeah.
 - Q. Right so he pointed that out to you and said that was not there before the September earthquake?
 - A. Yeah.

- Q. Correct, all right and were you aware from that meeting whether or not there'd been any inspection of the building, any engineer's inspection?
 - A. Well if it was yellow stickered I assume it was inspected.
 - Q. Yeah. I'm talking about a private engineer?
 - A. Yeah he did, yeah. Morris told me that he had already had the building inspected by Acron.
- 15 Q. And did he tell you the result?
 - A. Yes he, that the inspector had set it as green.
 - Q. Right but then it had been changed.
 - A. I didn't know it had been changed.
 - Q. I thought you knew it was yellow?
- 20 A. I knew it was yellow but the thing was what Morris was working towards was getting from yellow to a green.
 - Q. All right so you knew it had been green then yellow and he was working to get it back to green?
 - A. I didn't know it was green initially.
- 25 Q. Well you knew that he was in contact with -
 - A. The council.
 - Q. Mr Elliott from Aurecon?
 - A. Yeah.
 - Q. Did you have any direct dealings with Mr Elliott from Aurecon?
- 30 A. No, no.
 - Q. So did you ever get an engineer yourself to look at your own building?
 - A. For insurance claim purpose, yes.
 - Q. And that was Mr Ling -

- A. Yes.
- Q. later on -
- A. Mmm.
- Q. when Mr Muller was saying it was pre-existing?
- 5 A. Yeah.

- Q. So, well basically did you just leave, apart from your visits with Mr Muller and Mr Ling, you left the issue of placarding and getting that changed to Mr North did you?
- A. Yes because he, he, I was working to get the insurance part done. I left it to Mr North because he was working on it already.
 - Q. And if he hadn't have been doing that would you have done anything as the owner to check that it was structurally safe?
 - A. I assume I would have.
 - Q. Did you have any concerns?
- 15 A. Well the building was still standing and at the time it didn't appear to have had any damage.
 - Q. Well that wasn't the case when you saw the façade was leaning outward was it?
 - A. The façade was discovered after the October meeting with Mr Muller.
- 20 Q. So what did you do about that, when you discovered that?
 - A. Well -
 - Q. Did you tell Mr North?
 - A. I can't remember.
 - Q. Does that mean you probably didn't?
- 25 A. I can't remember.
 - Q. Did you think about telling him you said that was your main concern.
 - A. Well the thing was at the time the building was still yellow stickered so.
 - Q. But you knew Mr North was trying to get it back to green, correct?
 - A. Correct.
- 30 Q. So when you, well my question is when you find out or see that it's leaning, the façade's leaning out as the owner of a tenanted building did you do anything about that? Did you tell the council or Mr North?
 - A. No.

Q. Why not?

- A. I didn't know I had, I needed to.
- Q. Well you said you were concerned about that. Were you not concerned for the safety of Mr North and anyone else that was in the shop, if he got it green stickered?
- A. Well if it was a concern I don't think it would have been green stickered would it?
- Q. Well you became aware that it was green stickered didn't you?
- A. That was probably about early November or end of October.
- 10 Q. Right and you became involved in that didn't you, you rang the council.
 - A. Well at the time we, after the third meeting with, no, after Robert became aware, so it would be about the third meeting with Mr Muller.
 - Q. Right so November, 10 November.
- A. Robert had made an assessment, had said to me that the, the, the leanwas within tolerance and that it could be repaired.
 - Q. Right so what, you didn't have to do anything you thought?
 - A. Well from my point of view the building had just been green stickered and I had been told by an engineer that, you know, it was within tolerance.
- 20 Q. Were you?
 - A. Work to get it fixed, strengthened.
 - Q. So you didn't think that, you knew that Mr North was dealing with Aurecon. You didn't think to tell Mr North what you'd discovered about the lean?
- 25 A. No.
 - Q. What about after Boxing Day. Was there any further damage?
 - A. No.
 - Q. What about the cracks widening or lengthening?
 - A. Didn't notice any.
- 30 Q. Did you go and look?
 - A. We went probably about early January to have a look at it.
 - Q. Who's "we"?
 - A. Robert and I.

- Q. Robert Ling?
- A. Mmm.
- Q. And is that when he talked to you about strengthening it?
- A. We talked about strengthening it in November.
- 5 Q. So why were you wanting to strengthen it?
 - A. Well basically during the meeting with Fritz Muller he had asked, you know, had talked about, let's see, he had had some kind of a consensus with Fritz that, you know, to put in strengthening into the front of the building to brace the –
- 10 Q. Façade?
 - A. Yes.
 - Q. To tie the façade back?
 - A. Yeah, yeah and so he, after Fritz left we continued to talk about, you know, he told me, you know, it was a waste having –

JUSTICE COOPER:

- Q. I'm having trouble hearing you
- A. Sorry.

EXAMINATION CONTINUES: MR ZARIFEH

- 20 Q. After Fritz left?
 - A. We continued talking about, you know, how it was a waste having that floor area there and not letting it out to bring the building up to, you know, earthquake standard and making that accessible for rental.
- Q. So did you know that it was an earthquake-prone building then, or you'd been told that essentially?
 - A. I knew it was not up to standard because no work had been done since the, it was originally built.
 - Q. Why did you take the linings out from upstairs?
- A. Well basically what Robert said was his plan, or part of the strengthening was to line the interior with plywood and so, you know, there was work that needed to be done before the plywood could be applied. You know I could go ahead and get a head start on it.

- Q. Did you need a consent?
- A. I didn't know.
- Q. Did you ask?
- A. No.
- 5 Q. You just went ahead and did it?
 - A. Well, I did it, yes.

CROSS-EXAMINATION: MR ELLIOTT

- Q. Just one short matter Your Honour thank you. I'm just going to ask you to identify two documents please, firstly BUIRIC007.0005.1. It should come up on the computer screen there in front of you Mr Yan. Is that a letter that you wrote to the Canterbury Earthquakes Royal Commission.
 - A. Yes.
 - Q. And are its contents true and correct?
- 15 A. Yes.
 - Q. And document BUIVAR0046.1 is that also a letter you wrote to the Royal Commission?
 - A. Yes.
 - Q. And are its contents true and correct?
- 20 A. Yes.

CROSS-EXAMINATION: MR LAING - NIL

RE-EXAMINATION: MR ZARIFEH - NIL

QUESTIONS FROM COMMISSIONERS FENWICK & CARTER - NIL

QUESTIONS FROM JUSTICE COOPER:

- 25 Q. Yes, Mr Yan, did you make a claim under your insurance policy?
 - A. Yes.
 - Q. For damage to the building sustained in September?
 - A. Yes.

- Q. Have you provided a copy of the claim that you made to the Royal Commission?
- A. No.
- Q. Will you do so?
- 5 A. Okay.
 - Q. Mr sorry?
 - A. What part of the claim because its -?
 - Q. Well all of it please in relation to this building at 7 Riccarton Road.
 - A. So basically Fritz's report and so on.
- 10 Q. Yes, the claim that you made to your underwriters for cover as a result of damage sustained in the earthquake.
 - A. Okay.
 - Q. Now Mr Yan I understand from Mr Muller's evidence that that claim was not accepted, is that right?
- 15 A. Ah, yes, no, we're still pending Robert's report.
 - Q. It's still being considered is it?
 - A. Yeah.
 - Q. Well are they still waiting for Mr Ling's report?
 - A. Ah, no I think we're, they've made an offer on closure.
- 20 Q. I see well did you instruct Mr Ling to write a report?
 - A. I didn't know, let's see, Fritz asked for the report.
 - Q. Well he asked for the report from Mr Ling as your agent presumably, is that right?
 - A. Mhm.
- 25 Q. Is the answer yes.
 - A. Yes.
 - Q. So did Mr Ling report that that request had been made to you?
 - A. Did Mr Ling?
 - Q. Did Mr Ling tell you that Mr Muller had asked him for a report?
- 30 A. No.
 - Q. Well how did you find out about it?
 - A. Only through the evidence of today. I, um, let's see, during the meeting on November Mr Fritz did ask for, I can't remember exactly what it was

but it was basically a proposal of what you know what he thought would, we, the damage was and when we talk with Robert after the meeting we, ah, did go ahead and talk about the you know remedial action such as you know bringing the building up to standard. I think Robert was working on, you know, the proposed structural strengthening.

- Q. Well Mr Muller has told us that at a meeting at which you were present in November, I'm sorry at which Mr Ling was present in November 2010 Mr Ling sought an opportunity to provide a report on the structural integrity of the building with specific reference to the façade as well as recommendations on repair methodology. Mr Ling also agreed to cover potential repair estimates in his report and from that point Mr Muller was relying on Mr Ling to provide the report. Did you hear him tell us those things today?
 - A. Yeah I heard him yes.
- 15 Q. Later he said Mr Ling kept promising that the report would be available soon but it has never been delivered. Now are you telling us that you found out about that
 - A. Well for the –

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- Q. Don't interrupt me please. Are you telling us that you found out about that for the first time today?
 - A. It was mentioned, I can't remember exactly what Mr Fritz had requested on that day other than it was along the lines of, um, the work that we'd be doing to bring the building up to, you know, yeah to repair the building.
- 25 Q. Has Mr Ling ever provided a report to you about the -?
 - A. I've never seen it.
 - Q. You've never seen a report from Mr Ling?
 - A. No.
- Q. And have you never asked Mr Ling to advise you on whether the building suffered earthquake damage in the September earthquake? Is that your evidence?
 - A. Well apart from him saying it was still considered it safe or within tolerance, no.

- Q. He's never given you a written report.
- A. No, no.
- Q. Well Mr Yan your claim that you've made under your insurance policy I take it will be readily available to you?
- 5 A. Um, I'll enquire on it.
 - Q. I beg your pardon?
 - A. I'll make enquiries to get it, obtain it.
 - Q. Well you know where it is?
 - A. I'm not exactly sure what you mean by claim. We put in a claim with
- 10 State.
 - Q. Yes.
 - A. My brother, Michael did that, I think it would have been done through a phone call to lodge the claim or...
 - Q. Well -
- 15 A. Do you want the claim number or?
 - Q. You've never made a written claim I take it?
 - A. No.
 - Q. All right well yes let us have the claim number if you would please.
 - A. Okay.
- 20 Q. Perhaps by the 21st of December.
 - A. 21st.
 - Q. Thank you. Yes you may go now.

WITNESS EXCUSED

MR ZARIFEH CALLS

MORRIS EDWIN NORTH (SWORN)

- Q. Mr North can I ask you to give the Commission your full name please?
- A. Morris Edwin North.
- 5 Q. You reside here in Christchurch.
 - A. I do.
 - Q. And were you a tenant of the building that was at 7 Riccarton Road prior to and following the September 4 last year earthquake?
 - A. Yes, on behalf of the St Christopher's Community Trust which is a registered charitable trust.
 - Q. And so what were you the manager of the bookshop?
 - A. The manager of the Trust and, in that situation I've got oversight of the bookshop operations.
 - Q. And were you involved in it day-to-day back then?
- 15 A. Not on a regular basis but I was there pretty frequently.

1707

- Q. And Mr Elliott from Aurecon you may have been in Court when he gave evidence he said he knew you I think through the church, the same church. Is that right, is that St Christophers?
- A. Yes, the situation there is St Christophers have got about five or six hundred parishioners. I think I knew the name, and at the time of the quake I consulted with the other trustees as to who we needed to contact in terms of obtaining a structural engineer and somebody said, well David Elliott is part of the parish and he's a structural engineer and that's how that came about.
 - Q. Okay, so you didn't really know him before that?
 - A. I didn't really know him. I might have met him briefly once or twice. I certainly did not know that he was a structural engineer until somebody pointed it out to me.
- 30 Q. And this was after the 4th of September obviously?
 - A. Yep.
 - Q. What did you when you got in contact with him, what did you ask him to do?

- A. I said that my overriding concern was that we needed to be sure that the building was safe for operations because we had quite a large number of volunteers as well as a paid staff person and also that there were a large number of people came through the shop on a regular basis so we needed to be absolutely sure that the building was safe for our activities.
- Q. All right, and so he said he'd have a look at it?
- A. Yeah, we, I think I emphasised to him at the time. This was, we needed to do it on a professional basis and that we were willing to pay a fee for that.
- 10 Q. All right, and you eventually did?
 - A. We did, yep.

- Q. So he so this is he went on the 7th of September and I think he said you were with him. Correct?
- A. Yes, I do recall I can't recall the exact date, but –
- 15 Q. His first inspection then.
 - A. First inspection as I recall, yes.
 - Q. And you were aware that it had been green placarded the day before?
 - A. Yes, yep.
- Q. So that would have been the Monday that it was green placarded by the council inspection?
 - A. Yeah.
 - Q. Were you aware of that before you spoke to Mr Elliott?
 - A. I think the reason for contacting Mr Elliott was that, I think we must have been aware of the wording on the placard that there was some requirement to get to have an inspection.
 - Q. To go a bit further?
 - A. Yeah.

- Q. And so he comes along on the 7th, you're there and do you take him round and look at the damage as he's inspecting it?
- 30 A. I don't believe I did that on any precise basis, but rather to give him an overview of the layout of the building, because it was quite a large building, extended almost right back to Bartlett Street and three different

- sections or forms, so I made him clearly aware of the layout and the general set-up of the building.
- Q. And did you discuss any of the damage that was observable?
- A. I don't have a clear memory of the precise detail of the of what I might have discussed with him.
 - Q. Right, well had you been to the bookshop since the earthquake prior to that, for that visit with Mr Elliott?
- A. Yes, I'd gone there on the Saturday morning and had a look.
- Q. And had you observed any damage to the building?
- 10 A. I think I've got to say I was surprised that it was it still appeared to be totally intact and that I did observe the cracking in the facade, but I couldn't be 100 percent certain that the crack, some of those cracks weren't there before, but certainly in terms of the earthquake I had a pretty good look at the building.
- 15 Q. On the Saturday?

- A. On the Saturday, yeah.
- Q. So are you saying then that there were cracks that had not been there before and there were cracks that had been there before?
- A. I couldn't be certain as to the difference in the cracks before and after but they were certainly visible on the Saturday, yeah.
 - Q. Right, but the question is on the Friday, were they visible?
 - A. Well it wasn't the sort of building that you wanted to look at too much. I mean the cracks were in the on the top storey and I guess normally when one's looking at a building probably not necessarily looking up at the top storey.
 - Q. Well Mr Yan he talked about going to the building probably a week or two later with you.
 - A. Yeah.
 - Q. Do you recall that?
- 30 A. Yep.

- Q. And he said that you pointed out to him cracks that had not been there before the earthquake.
- A. Mmm.

- Q. Do you remember doing that?
- A. I may well have done, I was very happy to emphasise to Mr Yan that the building was in poor shape anyway and if I pointed that out to him I thought that perhaps that may galvanise him into some remedial action.
- 5 Q. Well because he clearly didn't do a lot in terms of maintenance did he?
 - A. Sorry.
 - Q. He didn't do a lot in terms of maintenance, Mr Yan?
 - A. Didn't do a lot of -
 - Q. He didn't do a lot in terms of maintenance did he?
- 10 A. No, no. That's right.
 - Q. So when you pointed out to him cracks that had not been there before the September earthquake, was that the case that there were cracks that had not been there before?
 - A. Well I believe so, yes, yeah.
- 15 Q. Well it's just important that we understand. You said that you did it to galvanise him into action?
 - A. Yeah.

- Q. One could infer from that that you simply said that to get some action from him but it wasn't true, or that you said it because it was true but you as well wanted him to do something?
- A. Well as I will say, I couldn't be, and I doubt whether many people could actually be certain of the extent of the cracks prior to the 4th of September.
- Q. All right.
- 25 A. This was a building that was in generally poor shape.
 - Q. So is it the case then that there might have been cracks that weren't there before?
 - A. Yeah.
 - Q. You weren't sure but you said that anyway to get him going?
- 30 A. Yep, that's a reasonable summary, mmm.
 - Q. And what about when you were with Mr Elliott then. What line did you take with him about the cracks?

- A. I took the view, the reason that we had engaged him, he was a professional qualified structural engineer and I was happy to rely on his expertise in terms of assessing the building.
- Q. Right.
- 5 A. I didn't think it was necessary to emphasise in any particular way, about my interpretation of the state of the building.
 - Q. Did you say anything to him about the cracks in the facade or in the building?
 - A. I believe I did because that was the major point of concern.
- 10 Q. So what did you say to him?
 - A. Well again I can't be precise on that but I believe it was along the lines of, "There are visible cracks on the facade and on the west wall adjacent to the facade."
 - Q. Right, so what, you pointed them out to him?
- 15 A. I think I was with him, yeah ...

- Q. All right.
- A. Yeah I was with him at the front of the building.
- Q. Did he ask you if any of the cracks were pre-existing cracks, before theearthquake?
 - A. No I can't recall that, him asking that, that question. He may have but I don't recall the detail to that extent.
 - Q. You heard his evidence today, didn't you? Do you recall his evidence today?
- 25 A. In relation to?

- Q. To the cracks.
- A. To the cracks, that there were some.
- Q. He said that he formed the view that all of the cracks, the visible cracks were pre-existing and that he got confirmation for that, he said that from his observations of the cracks but he got confirmation for that from you?
 - A. Well I'm sorry I can't recall the precise detail of, of that conversation.
 - Q. Well can you recall telling him that all the cracks were there before?
 - A. No, no I can't.

- Q. Did you believe all the cracks had been there before the earthquake?
- A. Well I think we've got to put it in perspective. My over-riding concern as I say was the safety of the people involved and here was a building that, that had cracks, visible cracks in the façade. So –
- 5 Q. But there's a difference between visible cracks that have been there all the time and visible cracks that have turned up after the 4th of September which was the case?
- A. Well as I've said before I can't be exactly certain as to the extent of, of the cracks before. The cracks were of the nature that if you were standing on the other side of the street and looked quickly at the building you probably wouldn't have actually spotted them. I know that a previous witness did say that he had, had parked on the other side of the road because he saw the cracks but he was a, a person who was skilled in looking at buildings et cetera.
- 15 Q. But Mr North we're talking about going up to the building, you and Mr Elliott standing
 - A. Yep.
 - Q. close to the building and seeing the cracks that were there?
 - A. Yep.
- 20 Q. So there was no problem seeing them when you were standing right at the building was there?
 - A. No, that's right.
 - Q. So did you tell him that the cracks or any of the cracks were there before the earthquake?
- 25 A. I can't specifically answer that because I, I don't, I don't have a memory of the extent to which there may have been cracks there.
 - Q. So is this correct then to, as at the 7th of September when he went there
 - A. Yeah.
- 30 Q. and you were standing with him, you weren't sure which ones were pre-existing and which ones were not?
 - A. True.

- Q. So it follows doesn't it that you could not have said to him something to the effect that they were all pre-existing or most of them were pre-existing or anything like that?
- A. Based on what you've said, yes, that's true.
- 5 Q. Well you didn't know did you?
 - A. No, I did not know for certain. I didn't know for certain. I mean this is a building that's, that's got a lot of cracks and bumps, when I say cracks a lot of un-remedied maintenance about it, there were a lot of deficiencies in the building, there were broken windows, there was broken guttering.
- 10 Q. I understand that but we're talking about the cracks on the façade and on the west wall aren't we?
 - A. Yep.
 - Q. Right and they were clearly visible when you were standing at the building?
- 15 A. They were on the, on the 4th of September, yes.
 - Q. And you're saying that you weren't sure if they were there, some of them were there before or not?
 - A. That's true.
- Q. What about the one on the west wall. Do you remember at the top of the west wall. You would have seen that photograph this morning?
 - A. Yep.
 - Q. That was not there was it?
 - A. Well again -
 - Q. Isn't that what you told Mr Yan?
- 25 A. Sorry.
 - Q. Isn't that what Mr Yan said you told him?
 - A. What, that it wasn't there before?
 - Q. It was not there, yes.
 - A. Well I hadn't noticed it before.
- 30 Q. Right. Well his evidence was that you told him that that crack
 - A. Yeah.
 - Q. in particular was not there.
 - A. Right.

- Q. Do you remember saying that to him?
- A. I, I don't, I don't remember the precise detail of, of that conversation which took place 15 months ago.
- Q. Do you remember if, well can you remember if that crack was there before the earthquake or not?
- A. It wasn't one which I had noticed.
- Q. Okay so if he can remember that then he may well be right, if he can remember you saying that?
- A. Mmm.

- 10 Q. You can't say?
 - A. No, I can't say for certain.
 - Q. But you were concerned about cracks weren't you?
 - A. Well certainly after the, after the 4th of, of September.
 - Q. Right.
- 15 A. Mmm.
 - Q. And on the 8th of September, this is after Mr Elliott had been on the 7th and said to you the green was, he was saying the green was fine, correct?
 - A. Yeah.
- 20 Q. Then on the 8th there's a significant aftershock in the morning wasn't there, on the Wednesday?
 - A. Yep, mmm.
 - Q. And you're on the phone on the 8th to the council?
 - A. Yeah.
- 25 Q. Concerned about the building?
 - A. Yep.
 - Q. The façade, correct?
 - A. Yes.
- Q. And we know that because there's an almost verbatim record on the council records of that call, isn't there?
 - A. Yep, mmm.
 - Q. And that record shows that you were concerned about the state of the building?

- A. Yep.
- Q. On the 8th?
- A. Yes.
- Q. Despite Mr Elliott's check on the 7th, correct?
- 5 A. Yes.
 - Q. I'll just bring the text of it up, 0019.1. This is the text of that call that you made. Just the details at the top, RFS details. So this is a record. The person receiving the call from you is typing it into a machine or a typewriter during the call, just get it expanded?
- 10 A. Yeah.
 - Q. And this is what you said to the council employee –
 - A. Mmm.
 - Q. "Brick and concrete façade badly cracked." That's correct isn't it?
 - A. Yep, yep.
- 15 Q. "Caller," that's yourself and your details are on that form -
 - A. Mmm.
 - Q. "concerned it could fall down on pedestrians," right?
 - A. Mmm, yep.
 - Q. That was true, Mr North?
- 20 A. I believe so, yep.
 - Q. "Structural engineer says with another significant tremor it could come down."
 - A. Yep.
 - Q. So you told them that, correct?
- 25 A. Yep.
 - Q. "Will require another council check since yesterday's check was given a green notice status."
 - A. Yep.
- Q. So that will be the 7th. Mr Elliott's check gave it a green notice, status or placard, correct?
 - A. Yep.
 - Q. So you thought that the façade because of the cracks could fall down?

- A. The, the situation was that I had the staff team member plus a lot of volunteers who were very concerned at the state of the building. This was three days, four days after the initial quake. People were, were feeling very nervous, a lot of people feeling stressed et cetera, et cetera. People were very emotive about the, the whole situation.
- Q. I understand.
- A. I was concerned as I've said. The number 1 priority was, is this building safe. I felt that the council had come and done a rapid inspection prior to –
- 10 Q. On the 6th?

- A. Sorry?
- Q. It was on the 6th.
- A. On the 6th. I felt that we needed to get them back because on the one hand Mr Elliott had the opportunity to do a fairly, a reasonably comprehensive inspection of the building.

1727

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- Q. What on the 7^{th} ?
- A. On the 7th. And that if we got the council back to do a more detailed inspection it would give our people some confidence that there had been two reasonably comprehensive inspections of the building.
- Q. Right.
- A. And also I felt that because the, because the council I assume would be the final arbitrator in terms of the fate of the building that it was important that I involve them again in terms of doing this other inspection.
- Q. All right Mr Elliott came on the 7^{th.} Were you not happy with the thoroughness of his –
- A. Perfectly happy, perfectly happy, but as I say I was under a lot of pressure –
- 30 Q. From your staff.
 - A. from a lot of people who were feeling nervous about the building.
 - Q. And were you expressing your concerns in that phone call to the council?

- A. I was indeed yes. I wanted to -
- Q. So were you telling the truth when you spoke to the council and told them what you did?
- A. Absolutely. Now I believe that I had input from various people and when
 I said that a structural engineer says that another significant tremor it could come down, I can't recall the details, but I believe that one of those people had made that comment to me.
 - Q. Who was the structural engineer being referred to?
- A. Well as I say I had a lot of people who were making comments to me

 about their concerns about the building and I believe that one of those
 people made that comment. I know a structural engineer who has seen
 the building and thinks that
 - Q. Who was that person?
 - A. I do not know. I can't recall.
- 15 Q. So one of your staff or a volunteer that worked with you told you that they had a friend was it or someone they knew who was a structural engineer who had looked at the building?
 - A. It was, it was I believe very much in the form of a casual comment but I was happy to use it because I felt there could be some validity in it.
- 20 Q. Why did you feel that when you'd had this thorough inspection from Mr Elliott who was a structural engineer the day before?
- A. Because as I said I felt that with the concerns of our people it was important that I get the best possible advice that we could. I felt that the whole thing was probably, there was a certain amount of subjectivity about it. Some people were saying, hey this building's been here 100 years. It stood up to the quake and it'll probably still be here in another 100 years. On the other hand other people were saying this, we don't like the look of these cracks et cetera, so my main concern was to, as I say, to get as much advice as I could.
- 30 Q. All right. So the structural engineer says with another significant tremor it could come down, that came from someone, one of your staff and you can't say who.
 - A. I've got no idea who.

- Q. And the first line then was that your observations and concerns?
- A. That it was badly cracked.
- Q. Brick and concrete façade badly cracked. The caller, that's you, concerned it could fall down on pedestrians.
- 5 A. Yes because I felt that if the council had seen it on the what was the date of the green sticker?
 - Q. 7th.

- A. On the 7th I was uneasy about the fact that if they had seen that façade and were happy to put a green sticker on it I felt that it needed, it needed re-inspection by them. I felt that they probably needed to spend a little more time and consider or reconsider that view.
- Q. So were you expressing a genuine concern that you had that the façade could fall down?
- A. Well as I say -
- 15 Q. Or was that something that you simply said to get, try and get some action as you said to Mr Yan?
 - A. I was very keen for the council to get back there. They were under -
 - Q. I asked you before if you were telling the truth in that call and you said yes.
- 20 A. Yes, yes I was.
 - Q. So you were concerned that the façade could fall down on pedestrians?
 - A. I had, yes, yes.
 - Q. Did you tell Mr Elliott that?
- A. Look I think it's, no I didn't tell him that because the situation had changed from the time that Mr Elliott looked at it.
 - Q. It was the next day.
 - A. Sorry.
 - Q. This is the next day.
- A. Yes because on the, on the 8th I had staff and volunteers there who were as I say they were expressing serious concerns about their views of the building.
 - Q. So you rang Mr Elliott too didn't you?
 - A. On that day?

- Q. Yes.
- A. I can't recall exactly.
- Q. He came back on the 9th didn't he? He says he did and he's filled out a form for the 9th
- 5 A. Yes, well I haven't got that detail.
 - Q. He would have come back because you had asked him to wouldn't you?
 - A. Yes.
 - Q. So that's the day after these concerns, the 9th?
 - A. Yep.

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- 10 Q. Did you tell him that you thought that the façade could fall down and that in fact one of your staff members had spoken to a structural engineer who had expressed the same?
 - A. I don't, I can't recall whether I said that to him or not.
 - Q. Why did you not tell him if you had those concerns?
- 15 A. Well as I say it's, it, I was very happy to rely on his professional expertise. I mean he was the one who should be telling me whether it was going to fall down or not.
 - Q. Well his evidence is that when he talked to you about the cracks you told him that they were all pre-existing. That's completely at odds with someone who's concerned about the cracks and thinks the façade is going to fall down, isn't it?
 - A. Well as I've said I can't be sure of the extent to which there were preexisting cracks. This was an old building as I've said with various shortcomings in it but it had stood the test of time. It was at least 100 years old.
 - Q. And were you still concerned about the building even after the yellow placard was lifted?
- A. Well I felt that we had, we had done all we could in terms of getting good professional advice. We'd had David Elliott there and we'd had
 30 the council back twice and I was relying on –

COMMISSION ADJOURNS: 5.36 PM