



lewis bradford
CONSULTING ENGINEERS

9 December 2011

Mark Zarifeh
Canterbury Earthquakes Royal Commission
PO Box 14053
Christchurch Mail Centre 8544
Christchurch

Attention: Mark Zarifeh

Dear Sir,

32 CATHEDRAL SQUARE: THE PRESS HERITAGE BUILDING

In response to your letter dated 29th November 2011, we provide the following information.

1. My name is Ashley John Wilson BE (Hons) Civil, MIPENZ, CPEng. I have twelve years experience working as a structural engineer.
2. Lewis Bradford Consulting Engineers were engaged by Ganellen Pty Ltd to undertake the structural design and documentation of the New Press Building in Gloucester Street in late 2008. Following the 4th September 2010 earthquake Lewis Bradford were asked to undertake a visual walkover inspection of the New Press Building at 156-158 Gloucester Street on the morning of 6th September 2011 and to comment on the structural damage resulting from the 4th September earthquake.

Following the inspection of the New Press Building Ganellen engaged Lewis Bradford to complete a visual inspection of a local area of the Press Heritage Building in Cathedral Square. Lewis Bradford were told by Ganellen staff that Civil Defence engineers had inspected the building on the morning of 5th September 2011 and given the building a green placard, but the payroll office area at level 3 had not been inspected as the door was locked. This initial inspection by Lewis Bradford was primarily limited to a visual inspection of the brickwork wall to the payroll office area at level 3 and the ironwork to the turret area above the roof. The building was fully occupied at the time of this inspection.

Following this initial inspection Ganellen engaged Lewis Bradford to undertake a number of visual inspections throughout September 2010 to determine if the building was fit for occupation.

3. Refer to additional correspondence sent to Peter Smith of Spencer Holmes Ltd (acting on behalf of the Royal Commission) dated 27th October 2011 for other inspections and reports completed by Lewis Bradford in September/October 2010.
4. Our involvement with the building ceased after our competitive fee proposal bid for the detailed seismic evaluation of The Press Heritage Building dated 8th November 2011 was unsuccessful. Ganellen commissioned Holmes Consulting Group to complete this work and we have had no further involvement with this particular building since the 1st November 2010.

- 5.
- i. When carrying out the inspections and in coming to the conclusion that the buildings were safe to occupy, consideration was given to the impact of the 4th September 2010 earthquake and subsequent aftershocks on the structural integrity of the building. Visual inspections completed in September 2010 had noted damage to local areas of the structure in three main areas; the northwest brick wall at Level 3, the northeast brick wall at Level 3 and the stonework (and minor brickwork areas) to the south and west perimeter frames. However removal of linings to primary structural elements in other areas throughout the building had revealed minor, if any, damage.

Therefore, although local areas of the structure had suffered some damage, we did not have reason to believe that the overall building's capacity to withstand future aftershocks (which at that time were believed to be confined to the Greendale fault) was diminished.
 - ii. To our knowledge, GNS or any other source did not make available any information about the likelihood, location and extent of further aftershocks in September and October 2010, other than a decaying sequence of smaller aftershocks on the Greendale Fault. This information became more widely available following the 22nd February 2011 earthquake.
 - iii. To our knowledge the Christchurch City Council did not make available any information relating to building standards or the inspection of buildings immediately following the earthquake.
 - iv. We did not review any information from any other external party relating to building standards or the inspection of buildings following an earthquake as part of this inspection.
 - v. No existing structural drawings were available despite extensive searching by Ganellen. We have copies of five of the original 1906 architectural drawings which include floor plans, elevations and some limited sections through the building. We also have CAD drawings of the floor plans dated September 2009 by Fulton Ross Team Architecture. These CAD drawings were used as part of the October 2010 report.
 - vi. As noted in our reports local areas of structural damage had occurred to the building. It was considered that the building would still fall under the council's damaged building policy and timeframes with regards to strengthening works, refer attached flow chart provided by CCC (attachment A).

The opportunity to trigger these potential strengthening timeframes would have been provided when the necessary consenting of repair works was discussed between CCC and the building owner.
 - vii. During the September 2010 inspections existing structural steel strengthening works were observed to the stonework and brickwork parapets above roof level. This structural steelwork consists of steel props and walers anchored to the parapets and to the concrete roof slab. Anecdotal evidence from Fairfax staff indicates that the steelwork had been in place since the late 1970's although no structural documentation was available. It is also believed that the height of the existing parapets was reduced at that time. There was no evidence within the remainder of the building that strengthening works had been carried out. Therefore it was considered that strengthening works had not been carried out on the remainder of the building.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Ashley Wilson', with a long horizontal flourish extending to the right.

Ashley Wilson
Senior Structural Engineer/Associate

A handwritten signature in blue ink, appearing to read 'Craig Lewis', with a small dot at the end.

Craig Lewis
Director

Strengthening of Earthquake Damaged Buildings

