



# HOLMES CONSULTING GROUP

STRUCTURAL AND CIVIL ENGINEERS

29 May 1997

File No.: 29985

Christchurch City Council  
 Building Consent Unit  
 PO Box 237  
**CHRISTCHURCH**

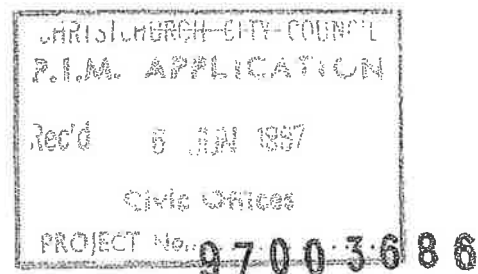
**Attention: John Taylor**

Dear Sir

## PYNE GOULD CORPORATION LTD - CAMBRIDGE HOUSE

A standard Producer Statement - Design is not appropriate for the building consent for this project. Please see attached drawings and specifications covering:-

1. Removal of exterior concrete embellishments.
  - Balustrade panels.
  - Sun screens.
  - Roof mounted square umbrella shaped canopies.
2. Strengthening of the exterior columns.
3. Minor structural works comprising:-
  - Infilling a floor void.
  - Removal and reinstatement of a stair flight.
4. Cutting holes in shear walls for doors and mechanical services.



The exterior concrete embellishments had been identified as minor hazards in a severe earthquake, hence their removal.

The exterior columns were identified as being vulnerable in a severe earthquake hence their strengthening.

We have undertaken a detailed 3-D Etabs seismic analysis of the building structure as a whole, and whilst it cannot be expected to behave as well as a new building, its performance is adequate. The onset of severe damage to some building elements can be expected at approximately 50% of current code loading. There is no legal requirement to strengthen the building as it is not subject to "Change of Use."

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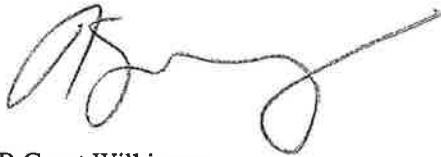


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The main new penetrations for doors and services are in the longer north-south walls, and while they may cause minor reduction in strength in those elements, the much shorter east-west walls are the more seismically vulnerable walls. The new openings are not expected to reduce the overall capacity of the building structure.

As usual, all new work has been designed to the current loadings code and materials code.

Yours faithfully



R Grant Wilkinson  
Director  
**HOLMES CONSULTING GROUP LTD**  
Christchurch Office

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