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30th June 2015

Andrew Croskery
Wareham Cameron + Co
Level 3, 31 Waring Taylor Street
Wellington 6140

Dear Andrew,

I have been approached by Victoria University of Wellington to provide my professional opinion on the feasibility of re-developing the Gordon Wilson Building at 320 The Terrace. I have extensive experience within Wellington with upgrading buildings that have significant structural deficiencies, combined with the complexities of restoring buildings that hold heritage status such as the previous Defence Head Quarters building at 15 Stout Street and currently the Old Public Trust building on Lambton Quay. Also I have completed a number of conversions of office buildings to student accommodation, particularly 132 The Terrace, 47 Boulcott Street, and recently the Katherine Jermyn Hall at 100 Boulcott Street.

I provide this letter of advice in my role as an experienced professional property developer, engineer and contractor with extensive knowledge and expertise. I am assessing and dealing with the issues manifest in 320 The Terrace.

I have inspected the property at 320 The Terrace, and have reviewed Beca's reports on the buildings structure, services, and conceptual requirements to upgrade the buildings strength. On the basis of these reports, I make the following observations in regard to the redevelopment potential of this property:

Building Structure & Seismic Performance:

Despite the building only achieving a seismic performance grade of 'earthquake prone', the actual structure of the building is in reasonable condition. The major structural issues relate to the façade and the construction of the piles.

Piles:

In regard to the piles, Beca note within their structural report that 'The construction method of the piles is uncertain, but is believed to have consisted of boring the pile hole, placing the reinforcement and the dry concrete aggregate and finally pouring in a mixture of water, cement and sand (grout).' Beca go on to say that they 'consider this method of construction is likely to lack reliability and may have compromised the integrity and strength of the piles.' Due to my own experience and knowledge with similar method (Franki Pile), I

agree with Beca's statement, particularly due to the inability during construction to adequately measure the hydration of the pile.

The method described above was to my knowledge only rarely used again in Wellington. I have personal experience with the Franki pile method in my management of the construction of the Michael Fowler Centre on Wakefield Street whereby dry concrete mix of the pile did not hydrate. For this reason, the entire set of piles had to be abandoned and removed and an alternate method of construction was ultimately implemented.

As advised by Beca, the only way to ascertain the actual construction method used and the current condition of the piles is to carry out very invasive investigations and testing. This in itself would be difficult to complete due to access of the piles and would come at significant cost. Also, due to the nature of the method used, you may not be able to fully determine the integrity of all piles by testing just a select few as each pile holds its own risks around structural integrity based on whether or not the grout managed to satisfactorily fill the aggregate voids and then hydrate during the construction process.

Façade:

The level of degradation of the façade is considerable, and I concur with Beca that due to the fact that this degradation will only continue, I believe the best way to address this, as well as the significant safety issues, would be to replace it completely with a new façade.

The most sensible alternate option to a new façade would be construction of a curtain wall. The most obvious difficulty with erecting a curtain wall for this particular building however, despite the large expense, is the detrimental effect it would have on the Heritage status of the building.

Notwithstanding the above, a curtain wall may not fully address the ongoing safety issues as it would not fully stop continued degradation in the short-term. This would leave exposure to risks of failing façade not only damaging the curtain wall, but also potentially still causing harm.

Building Services:

Beca recommend within their report that due to the age of the building, all services be replaced and I would agree.

Conclusion:

Over and above my comments above in regard to the risks around the strength and integrity of the piles, the age of services, degradation of the façade with little ability to remediate (particularly working within Heritage requirements), some additional thoughts around weaknesses regarding redevelopment of this building are as follows:

- The dated design and structural restrictions do not easily allow for reconfiguration of the building, resulting in a final design that will have the same number of units with similar layouts as currently exists.

- The current layout of typical units does not allow easily for the addition of individual laundry facilities, resulting in a need to retain communal rooftop laundry spaces. This does not lend itself to the expectations of potential occupants.
- Current external walkways are unappealing. It would need to be determined if these were able to be enclosed.
- There are only two lifts at the very northern end of the building which is not ideal compared to modern standards.
- The location of the building on the site means there is little to no development opportunity for the rear of the site, making any chance to mitigate the risks around costs difficult.
- The capital costs required to upgrade the building are of equal or greater value than a brand new building which would be a much improved product. Ongoing maintenance costs would be high due to known issues with the façade which are likely to continue for some time into the future. The energy efficiency (heating) of a refurbished building is likely to be very poor relative to a new build.

Overall, my expert opinion on the development potential of this building in regard to upgrading the existing structure, is that there is little to no appeal. The return on investment would likely be negative given the multiple risks associated with restoring the building.

I have reviewed the Wareham Cameron + Co report titled "320 The Terrace, Wellington, Gordon Wilson Building, Building Condition and Options Assessment".

That report provides an in-depth review of the building; structure, façade, services, asbestos and heritage. It includes reviews of the suitability of the building for re-use by Athfield Architects and Urban Perspectives, and cost advice from Rider Levett Bucknall. Wareham Cameron + Co has worked with Victoria University's student accommodation and facilities management teams to complete financial analysis of the building for student accommodation.

I find the report to be thorough and comprehensive. The report concludes with the recommendation and belief that the building to be beyond economic use for any purpose. I concur with that recommendation and believe the building to be beyond economic use for any purpose for any occupier.

Sincerely,



Maurice Clark, BSc (Eng)
Managing Director

Cheops Holdings Ltd

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