

The reasons for this opinion are:

- ▶ A large number of items in a building's cost are not affected by enhanced design requirements e.g. carpets, lifts, internal walls, windows, etc, and so the figure will not be greater than 10% in our view
- ▶ Additional costs will however occur in the following areas:
  - ▶ Design
    - ▶ Due to new requirements and more attention to specific areas where failings were found during the earthquakes
    - ▶ Increased insurance costs for consultants
    - ▶ Additional design areas such as seismic restraint of suspended ceiling systems
    - ▶ Enhanced geotechnical testing and reporting
    - ▶ More structural inspections during construction
  - ▶ Consents
    - ▶ We expect more assessment to be completed on new building designs thus increasing the hours spent on review by council
  - ▶ Construction insurance
    - ▶ Significant increase in construction insurance (up to 400%) - as well as all insurances relating to construction
  - ▶ Construction
    - ▶ More robust and larger capacity foundations, we expect to see a more conservative design approach taken on ground work
    - ▶ Larger building frame sizes due to increased design loads
    - ▶ More costly detailing around cladding connections, whether these are concrete, glazing, etc
    - ▶ Additional detailing and cost around stairwells and exits
    - ▶ Seismic restraint of suspended ceilings, lighting, etc

## Appendix G Supply side qualitative findings

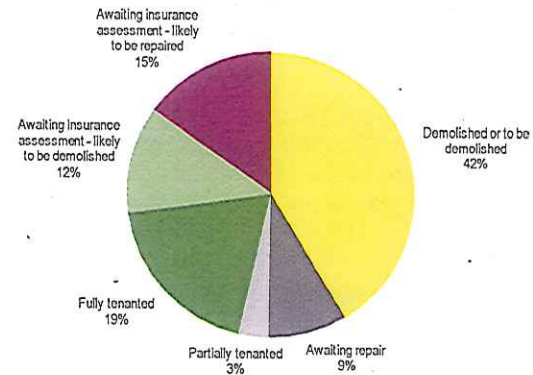
The objective of this section is to provide an analysis of responses of property owners to the following:

- ▶ The status of property owned by the respondents
- ▶ The expectations of those property owners whose buildings are likely to be repaired
- ▶ The expectations of property owners whose buildings are likely to be demolished
- ▶ The attitudes of property owners to land amalgamation
- ▶ Property owners positions in respect of insurance and debt
- ▶ The expectations of property owners as to yield and development margins

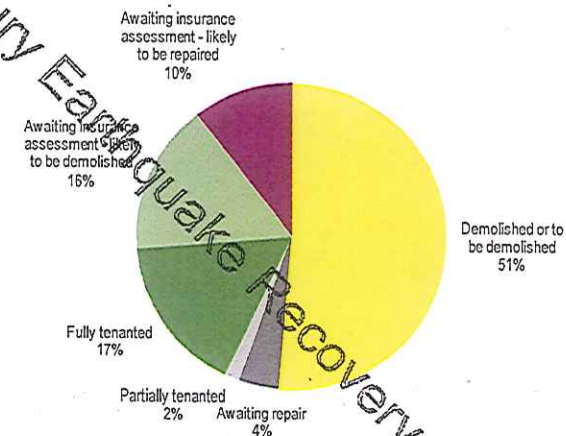
### Property owner intentions

Central City Area property owners were asked about the current state of their buildings and they responded as follows:

Building status based on number of respondents



Building status based on lettable floor space (sqm)



### Interview with Richard Peebles, established property developer and investor

Richard owns 24 commercial properties under various individual property company names in and on the perimeter of the Central City Area. Prior to February 2011 Richard owned 17,710 sqm of commercial floor space, of which 15,650 sqm had or is going to be demolished. Manchester Courts, which was located at the intersection of Manchester and Hereford Streets, is one of these properties.

In his dealings with the Christchurch City Council Richard said "the processes relating building consents are extremely entrenched, bureaucratic and detail orientated on minor issues. It takes months to sort out minor construction details". He also said "interpretation of existing use rights is taken to the extreme".

Richard is actively planning rebuilding in all cases and is acquiring vacant land for further development. He said "my proposed buildings are all low rise maximum of three levels with a high ratio of car parking at grade. I will start with development of the properties on the edge of the city and develop those towards the centre last".

When questioned on his thoughts on the Central City Plan, he stated "the City Council has done an amazing job with the draft Central City Plan".

In terms of reinvestment of capital, including insurance proceeds Richard stated "I am investigating options outside of Christchurch, but committed to heavy investment in Christchurch".

### Expectations of property owners whose buildings are likely to be repaired

- ▶ Of the respondents whose buildings were likely to be repaired, 39% considered the repairs will take less than 6 months; a further 25% expect repairs to take 6 to 12 months, 21% 12 to 18 months and the remainder of respondents expect repairs to take longer than 18 months
- ▶ 65% of respondents expect their insurance to cover at least 80% of the total repair cost, a further 25% are unsure
- ▶ Respondents were asked how confident they were to attract tenants to their building once repaired. 65% of respondents are confident to very confident that they would attract tenants, 11% of respondents are not confident and a further 25% are uncertain

### Interview with Andy Macfarlane, established property investor

Andy has an ownership interest in Forsyth Barr House, 764 Colombo Street, Rural Bank House, corner of 122 Gloucester Street and Cathedral Square, and 76 Victoria Street (former Asko site).

These properties comprised 11,234 sqm of commercial floor space. Rural Bank House and the Asko buildings have been demolished. Outside of the Central City Area he has an interest in two large bulk retail properties in Moorhouse Avenue both of which have also suffered major damage in the Earthquakes.

Andy is well progressed on planning for a new five level office building on the Rural Bank site and a four level office building on the Asko site.

When asked for his thoughts on the draft Central City Plan, Andy stated "I am happy with the plan, but identification of the Conference Centre site is urgently required".

- ▶ The following chart summarises the net rental per sqm that property owners expect they will need in order to obtain an acceptable economic return on their repaired property



### Expectations of property owners whose buildings have been or are likely to be demolished

- ▶ 40% of respondents whose buildings were likely to be demolished answered that they have achieved a satisfactory settlement with their insurance company, 46% of respondents are still working towards an outcome, 10% do not consider they have achieved a satisfactory settlement and 4% of respondents did not have insurance
- ▶ Respondents were asked about their intentions in respect of any insurance proceeds they received for their property. 21% of respondents do not intend to reinvest in property in Christchurch, 6% intend to reinvest in suburban Christchurch property, 45% intend to reinvest in the Central City Area property and 28% responded as not applicable or property was not insured

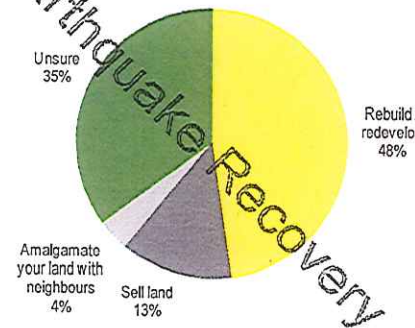
### Interview with Mark Macauley, MD of CBRE

CBRE provides a wide range of services to commercial, retail and industrial real estate businesses, including sales and leasing, asset management and property valuations.

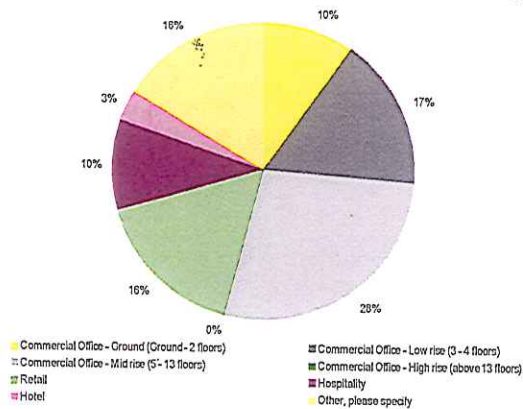
Mark explained that "consultants are positive that the redevelopment of the city is moving forwards, but that the biggest hurdles for major property owners are related to the settlement of their insurance claims". Mark views there is a "major risk of under supply of buildings" and that this is due to the perception by property owners of a high investment risk for the potential return on investment. Mark believes that there is a "lack of interest by foreign investors". However, he states "there is nothing new here with a city of 400,000 people at the end of the Pacific with only relatively small investment opportunities. Those who have traditionally invested money in Christchurch must be encouraged to do so again. This has to be the easiest money to attract to fund a rebuild".

He considers that "most Central City development plans are only at the concept drawing stage and not the consent stage". This, coupled with the significant geotechnical testing and reporting delays being experienced, will impede the rebuild of the central city. However, Mark believes that "the rebuild process could be expedited by easing the consenting process".

### What do you propose to do with your property?



- ▶ Of the respondents who intend to redevelop their property, 61% intend to manage the redevelopment themselves, 13% are unsure whether they will manage the redevelopment and 51% have managed a development of that scale previously
- ▶ Respondents were then asked what type of development they intend to undertake on their property. Their responses are summarised in the following chart:



**Interview with Michael Ogilvie Lee, established developer and investor**

Michael is a Wellington resident and has commercial property interests in New Zealand and Australia. He has an ownership interest in the Triangle Centre and various properties adjoining in Colombo and High Streets, together the High to Hereford property at 250 - 260 High Street. In total he owns 6,045 sqm of retail and office space.

He has had discussions with potential tenants on building type and scale and he stated "major tenants are all focusing principally on building strength and heights of between three to four levels maximum. There is little or no discussion on green buildings".

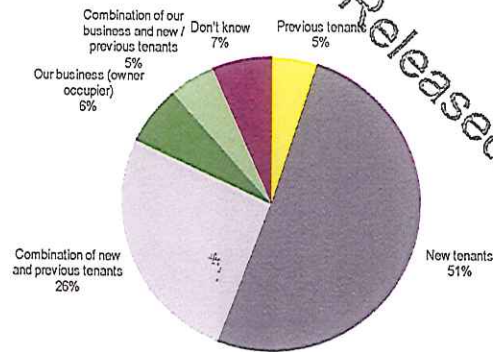
When questioned on his views of the scale of the rebuilt city, he expressed concern what will become of the eastern side and stated "the east side of Manchester St needs serious planning and development momentum to create a master planned residential precinct".

On the draft Central City Plan he was "generally happy with the revised draft Central City Plan".

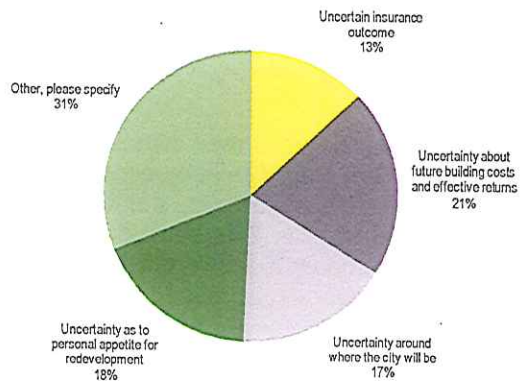
Potential roadblocks or impediments to the rebuild gaining traction were discussed and he listed the following issues:

- ▶ Central City Plan not confirmed
- ▶ No access
- ▶ Demolition progress too slow
- ▶ Uncertainty on a number of fronts"

Property owner views on who will tenant their properties



► Property owners whose property has been or is to be demolished and who responded that they were unsure as to their intentions with that property were asked why they are unsure about their plans. Their responses to this question are summarised in the chart below:



Interview with Humphrey Rolleston

Humphrey is a prominent Christchurch business person with significant historical ties to the city. Through his various business and cultural connections, Humphrey has a wide influence across a number of key stakeholders. In addition to Humphrey's various board and school director roles he is a canon almoner of the Christchurch Cathedral.

Humphrey spent much of the last year researching how international areas that had been hit by natural disaster have gone about the planning and recovery process. Specifically Humphrey travelled to Beirut in Lebanon, Palermo in Sicily Italy and Peru.

Humphrey provided the following quotes.

"It is important to put community interests first and property interests second".

"If we rebuild Christchurch, the city will fail".

"Every development over 25 m has been a commercial failure. Developers have gone broke at the time of completion and there have been no rent reviews to keep pace with inflation over the life of the buildings".

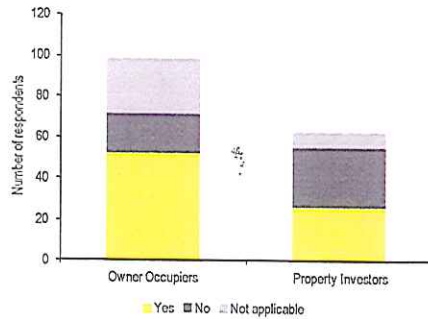
"It is critical that we develop a wonderful place for citizens, giving them an alternative retail experience. They need to wake up in the morning and make the decision as to whether they want to experience a suburban or a city retail experience".

"Capital requires certainty - zoning is the key to delivering this certainty to investors in a way which will accelerate the pace of the city's redevelopment".

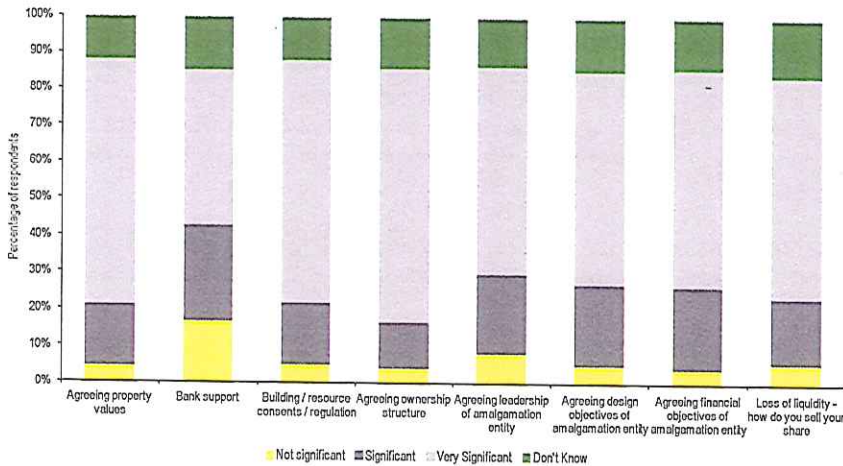
## Property owner attitudes to amalgamation of land titles

- Property owners were asked whether they would consider amalgamating their properties, their responses are summarised in the charts below:

### Consideration of amalgamation

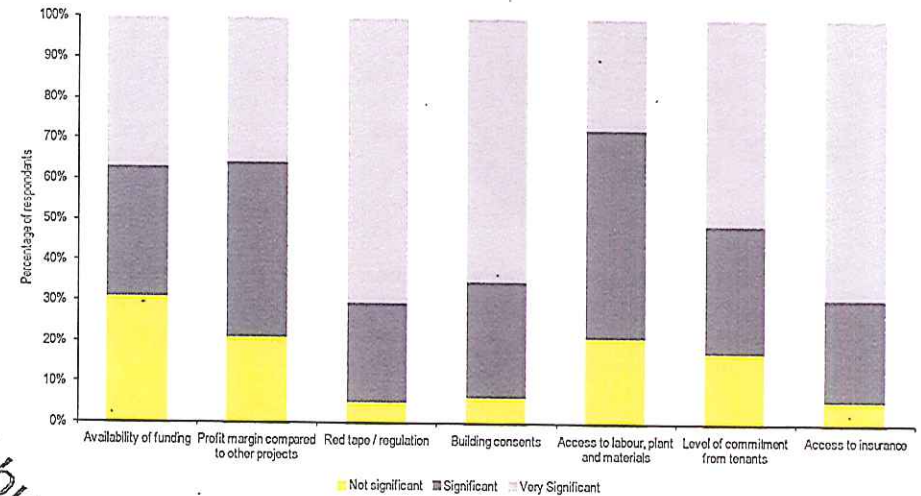


### Perceived success factors for amalgamation



- Property owners were asked what factors they consider will be significant to them when deciding whether to return to the Central City in the next five years, their responses are detailed below

### Perceived significance of factors that may prevent property owners from returning



## Insurance

- Property owners were asked about the status of their insurance in relation to each property they own in the Central City. 73% of respondents have full replacement cover on their properties and 3% of respondents were not insured. 72% of respondents have either 12 or 24 months business interruption insurance and 12% of respondents answered no to having business interruption cover

### Interview with Rob McCormack, CEO and owner of Harcourts Grenadier and Central City property owner

Rob explains that he wants his business to lead the way in the rebuild and reoccupation of the Central City; "I'm doing it because I love my city". Rob states that "the location for Harcourts Grenadier [within the Central City Area] is not crucial, as long as there is a cafe downstairs". Harcourts intend to be the first building open inside the red zone and they are keen to support the city.

Rob believes that the redevelopment of the Central City would progress more quickly with better leadership and coordination. Rob considers that the rebuild of the Central City could be expedited by improved communication to all property owners and active support from the Council and CERANZ those that are keen to rebuild.

His view is that "a coordinator is required to liaise with property owners and developers and report back to the relevant organisations". He also cites insurance as being an issue with insurance typically only being obtained if there is a portfolio of insurance on offer to the insurer. In addition, the consenting process and requirements are still unclear and there are inconsistencies therein.

Rob states that "the critical path needs to be defined" and "there needs to be media focus on those with a vested interest who are positive and forward looking". Rob is optimistic that the "city will be the most exciting place to be in 18 months time". He also considers that "Demand for higher buildings will change over time".

Rob stated that, so far "lenders have not shown resistance to the rebuild but they are looking carefully at proposed lease agreements".

### Financial position

- ▶ Property owners were asked about their financial position in relation to each property. 54% of respondents stated they had debt on their properties in the Central City, a further 14% did not wish to answer the question
- ▶ Of these respondents, 63% considered they had adequate support from lender. However, 23% chose not to answer this question

### Interview with Howard Buchanan, Commercial Manager Harcourts Grenadier

Harcourts Grenadier offers a wide spectrum of real estate services, based in Christchurch, from residential properties in Canterbury, to business broking and urban development.

Howard's view is that property owners "just need the freedom to build what tenants want to attract them back from the suburbs" and that private tenants and owners are coming to their own agreements. Howard believes that the consenting process is a "nightmare" and takes far too long.

Howard suggests that the consenting process would benefit from Christchurch City Council providing an exhaustive list of information requirements at the start of the process to minimise delays, rather than a piecemeal approach.

Howard states that "property owners need a critical path and absolute clarity on what is required and that Crown leadership around the consent process is essential". Obtaining adequate insurance is also an issue for property owners and developers. Essentially many of the properties are owned by owners who have no development experience, resulting in the need to ease the development path to allow the rebuild to occur within a sensible time frame.



# Appendix H Supply side quantitative findings

## Yields and developer margins

- ▶ The analysis of Developer Margins and Yields was undertaken through analysis of the inputs from the following questions that were asked in the survey

### Question - Yield expectations

"Please advise the investment yield or capitalisation rate that you require to develop the property? Investment yield or capitalisation rate is calculated as Total Net Revenue / Total Asset Value".

### Question - Development margins

"A development margin is the profit that you require for managing and assuming the risk associated with the development. If you do not require a development margin and you are a property owner seeking to rebuild a property that will deliver a yield when completed - please enter '0' "

"Please advise the development margin that you normally require (%)?".

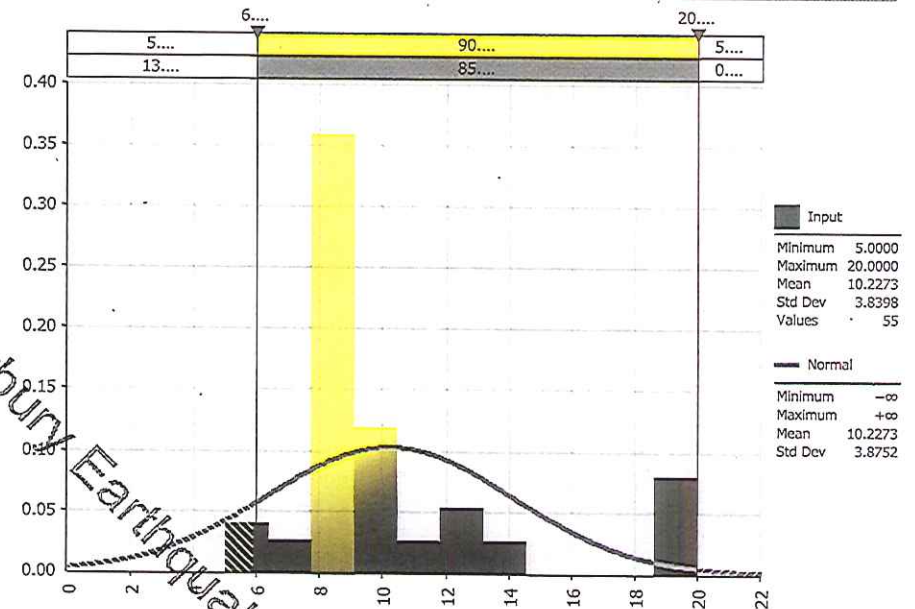
"If circumstances are such that it may not be possible to achieve conventional development margin levels, please indicate what is the minimum development margin that you may accept in order to complete a development(%)?"

## Yield expectations

- ▶ Of the property owners who responded to the survey approximately 25% responded to the question on yield expectation. These respondents represent those whose property has been or is likely to be demolished, and who intend to rebuild / redevelop their property in the Central City Area

- ▶ The raw data was statistically assessed and a normal distribution calculated using @ RISK

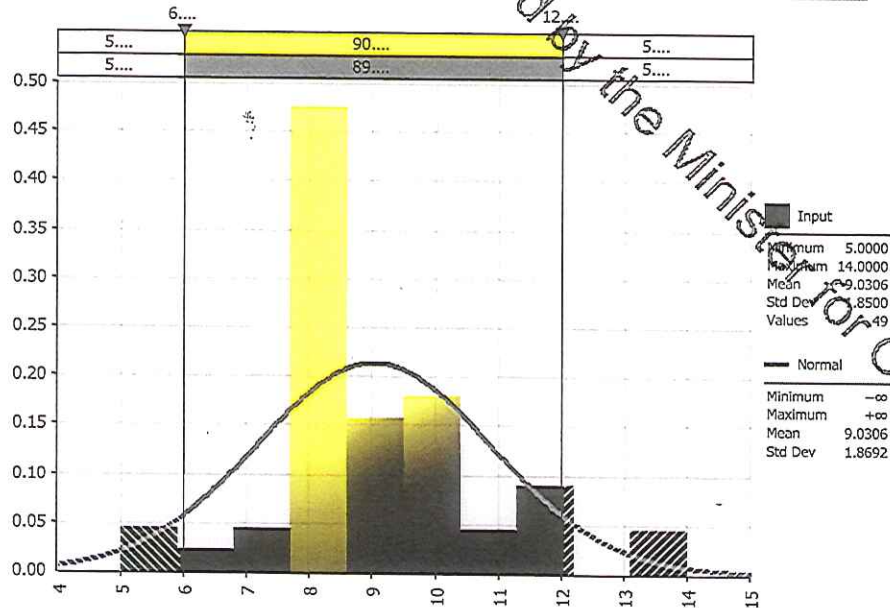
Property owner - required yield (%) amended data RiskNormal (10.2273,3.8752)



- ▶ Based on the raw data there was a 90% probability that the yield expectation would be between 6% and 20% with a mean of 10.2%
- ▶ This data was significantly impacted by a property owner who owned multiple properties and had an unrealistic yield expectation of 20%. The long term average market yield for the Christchurch Central City is known to be approximately 8%

- Given the significant influence this outlier datum had on the distribution we removed the outlining 20% responses and re ran the normal distribution model. The results were as follows showing that there is a 90% probability that the yield expectation would be between 6% and 12% with a mean of 9.05%

Property owner - required yield (%) amended data RiskNormal (9.0306,1.8692)

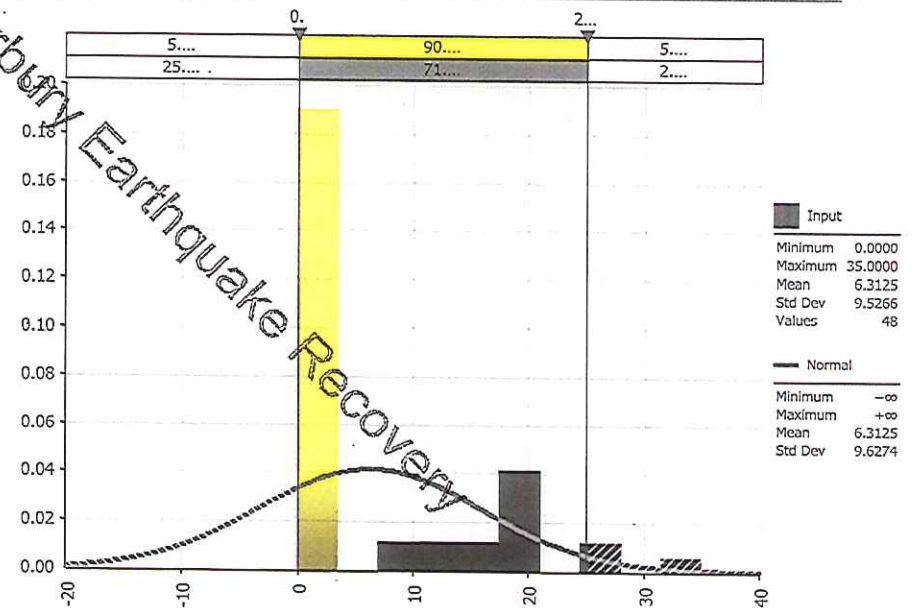


- The survey respondents require an approximate 1.5% premium over the long term average market yield of approximately 8.0%. The premium may be a reflection of current underlying perceived risk in the Christchurch Central City property market. However, our discussions with major property owners reveal that many investors are simply interested in obtaining a yield that was comparable to the level of yield that they were previously obtaining. Furthermore, there is a recognition that yields will trend towards the long term average as developers compete for the premium tenants

## Development margins

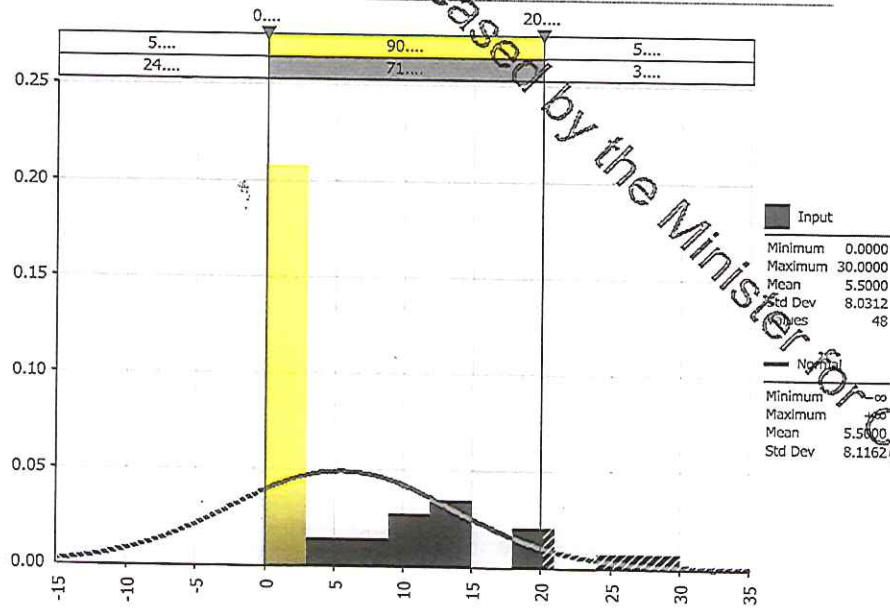
- Of the property owners who responded to the survey approximately 25% responded to the question on development margins. These respondents represent those whose property has been or is likely to be demolished, and who intend to rebuild / redevelop their property in the Central City Area. The raw data was statistically assessed and a normal distribution calculated using @RISK
- Approximately 70% of responses to the question did not anticipate a development margin and would undertake the development to establish a rental yield. Many property owners have indicated that they are seeking to obtain a reinstatement of the previous property returns that they had pre earthquake. To achieve this, and on the assumption that there will be sufficient tenants to underwrite the developments, a number of property owners have indicated that they do not require a development margin.
- Based on the survey responds there is a 90% probability that the expected margin will be between 0% and 25% with a mean of 6.31%

Normal development margins expected (%) RiskNormal (6.3125,9.6274)



- ▶ The data relating to the minimum development margin showed a 90% probability that the minimum margin will be between 0% and 20% with a mean of 5.5%

Minimum development margins (%) Risk Normal (5.5000,8.1162)



Released by the Minister for Canterbury Earthquake Recovery

# Appendix I Viability findings

Our methodology includes the following steps:

- ▶ Determining the expected rental charges (by sqm) required by property owners and developers
- ▶ Considering the likely quantum (sqm) of demand of commercial office space at the price points implied by the supply-side analysis on building costs, anticipated yields and developers margins
- ▶ Identifying scenarios where the gaps between demand and supply can be narrowed
- ▶ Considering the likely commercial space requirements, in light of the commercial office demolitions and the commercial office stock that will remain

## Expected rentals required by property owners

### Methodology and inputs

A financial model was prepared that incorporated a Monte Carlo simulation with variability driven off the above inputs to produce outputs that have a probability of being within specific output ranges - e.g. the development margin is 90% likely to be between 0 and 10% for a range of sqm rental inputs.

There are four key variables which will affect the economics of redevelopment and which will determine the velocity of the rebuild. We have completed a Monte Carlo simulation analysis to incorporate the variability of these inputs and provide a statistically accurate output that will reflect the operating environment.

### Net Rent

Forecast Net Rent has been determined, based upon construction costs that vary dependent upon the height of the building and the size of the floor plate.

Forecast Net Rents are summarised on the following page and are the output of the simulation.

Commercial-in-Confidence

### Yield

We have adopted a Yield that reflects the long run average required return and is consistent with the view of a large number of major property owners who have the appetite and financial capacity to redevelop.

We have applied an input simulation for Yield as follows:

- ▶ Low 7.75%
- ▶ Likely 8.0%
- ▶ High 8.25%

### Project margin

Landowners controlling in excess of 50% of land for which survey results were received, indicated that they do not anticipate a development margin and would undertake a development to establish a rental yield.

We have applied an input simulation for Development Profit Margin as follows:

- ▶ Low 0%
- ▶ Likely 5%
- ▶ High 10%

### Land value

There is a differing view amongst developers as to the value of land.

A property owner who has been paid by insurance for the building and who is left with residual land will have a different value to a developer who acquires land through an open market transaction. The consensus from property owners was that land has a value, but that it is less than it was and will remain that way for some time.

The value of land must reflect in any event the value at which the current owner will develop or sell - as only at that point will the treatment of incumbent and new developers be consistent.

Without consistency, it will be difficult to attract new developers to acquire land and undertake new developments.

Based on discussions with a number of major land owners and anecdotal evidence from Colliers, we have allowed a land value of \$2,000, and applied the following value adjustment through input formula, to provide a degree of uncertainty and variability:

	Input data	Implied value
Low	40% of value	\$ 800 sqm
Likely	50% of value	\$ 1,000 sqm
High	90% of value	\$ 1,800 sqm

### Outputs

Monte Carlo simulation allows for modelling of a range of variables with implied uncertainty to establish an output with a degree of certainty.

We have chosen to model the developer margin as the key output determining development viability, on the basis that:

- ▶ New developers, who will be comparing this opportunity with other opportunities in other locations and who will not have the benefit of land ownership following full insurance payouts, will have a margin requirement that will need to be achieved to attract their investment capital
- ▶ Through referencing the developer margin as the output, incumbent landowners have an option to take a smaller margin to re-establish a yield from their property, however this will be a decision that will be taken on a case by case basis dependent upon their individual circumstances, requirements for income and attitude to risk

- ▶ Land owners, while at this stage indicating that land currently has reduced value, will have a price at which they would sell the land. This is the value that must be determined to establish the level playing field for incumbent and new developers alike
- ▶ The use of margin will also allow for and identify the proportion of developments that will be financially unviable - a risk that exists with all proposed developments
- ▶ The results for each type of building are presented below:

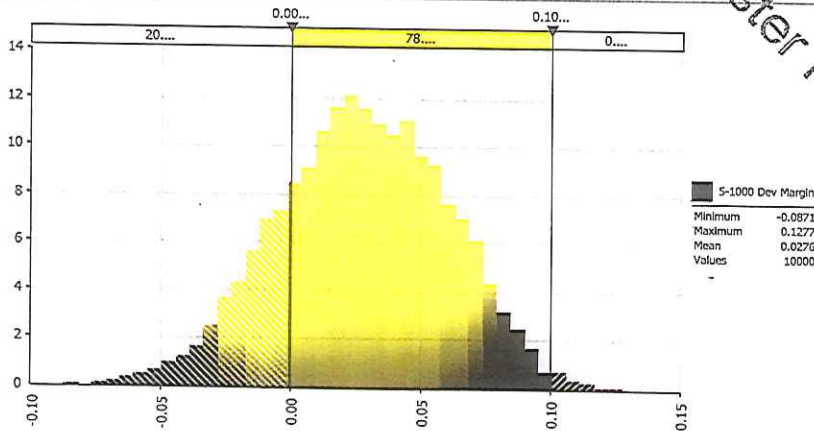
Storey	Sqm Floor plate	\$
5	500	570
5	1,000	460
10	500*	490
10	1,000*	405
15	500*	460
15	1,000*	400

\* - Denotes buildings that would not meet the height restrictions of the CCP

### Five floor building - 1,000 sqm floor plate

- ▶ Based upon the above assumptions, buildings can be developed for:
- ▶ A rent of between \$430 m/2 and \$475 m/2 - likely \$460
- ▶ A land value of between \$800 m/2 and \$1,800 m/2 - likely \$1,000
- ▶ 78% likely to deliver a margin to developers of 0% and 10%, and
- ▶ 20.8% of developments will however result in a negative margin, consistent with the fact that not all property developments in a 'normal' market deliver a positive return

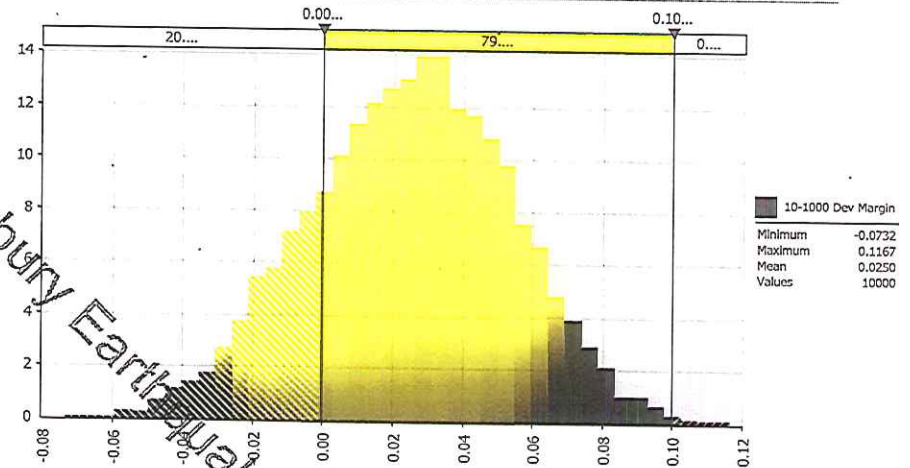
### 5 level - 1,000 sqm floor plate - Development margin



### Ten floor building - 1,000 sqm floor plate

- ▶ Based upon the above assumptions, buildings can be developed for:
- ▶ a rent of between \$375 m/2 and \$425 m/2 - likely \$405
- ▶ a land value of between \$800 m/2 and \$1,800 m/2 - likely \$1,000
- ▶ 79.8% likely to deliver a margin to developers of 0% and 10%, and
- ▶ 20% of developments will however result in a negative margin, consistent with the fact that not all property developments in a 'normal' market deliver a positive return

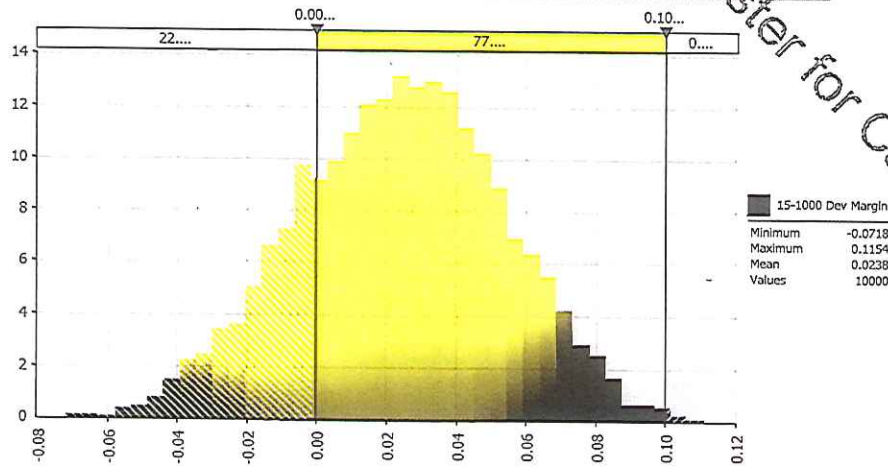
### 10 level - 1,000 sqm floor plate - Development margin



### Fifteen floor building - 1,000 sqm floor plate

- ▶ Based upon the above assumptions, buildings can be developed for:
- ▶ a rent of between \$370 m/2 and \$420 m/2 - likely \$400
- ▶ a land value of between \$800 m/2 and \$1,800 m/2 - likely \$1,000
- ▶ 78% likely to deliver a margin to developers of 0% and 10%, and
- ▶ 22% of developments will however result in a negative margin, consistent with the fact that not all property developments in a 'normal' market deliver a positive return

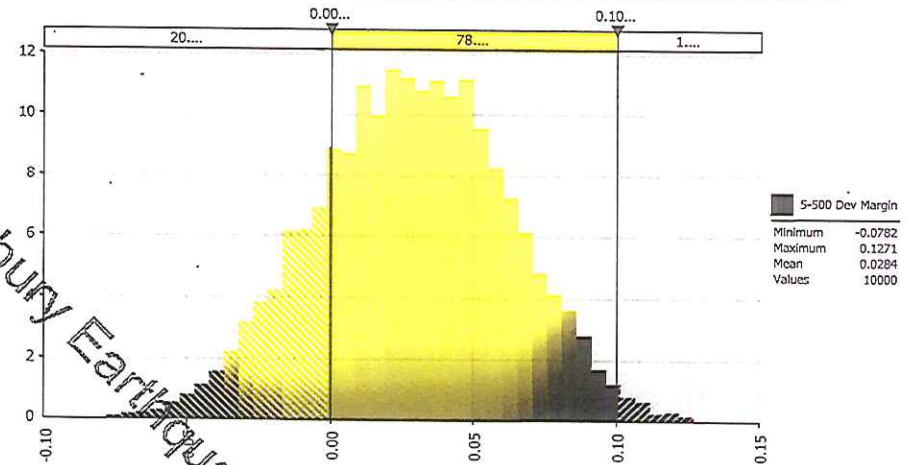
### 15 level - 500 sqm floor plate - Development margin



### Five floor building - 500 sqm floor plate

- ▶ Based upon the above assumptions, buildings can be developed for:
- ▶ a rent of between \$540 m/2 and \$600 m/2 - likely \$570
- ▶ a land value of between \$800 m/2 and \$1,800 m/2 - likely \$1,000;
- ▶ 78% likely to deliver a margin to developers of 0% and 10%, and
- ▶ 21% of developments will however result in a negative margin, consistent with the fact that not all property developments in a 'normal' market deliver a positive return

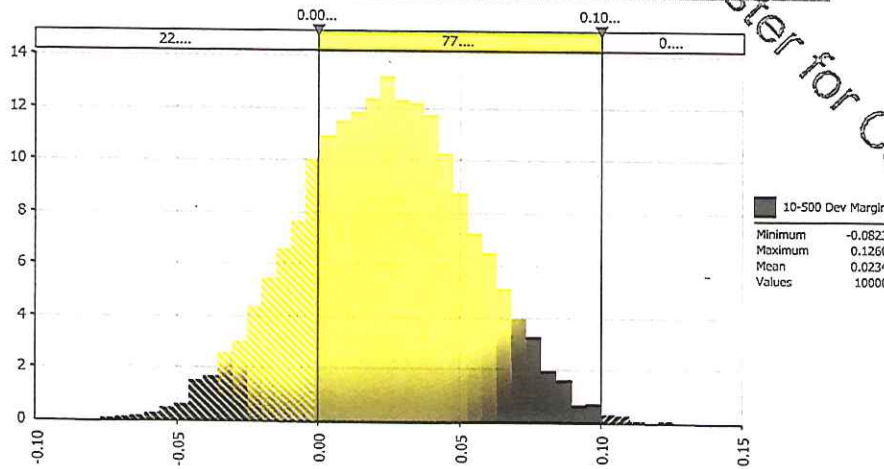
### 5 level - 500 sqm floor plate - Development margin



### Ten floor building - 500 sqm floor plate

- ▶ Based upon the above assumptions, buildings can be developed for:
- ▶ a rent of between \$460 m/2 and \$520 m/2 - likely \$490
- ▶ a land value of between \$800 m/2 and \$1,800 m/2 - likely \$1,000
- ▶ 77% likely to deliver a margin to developers of 0% and 10%, and
- ▶ 21 % of developments will however result in a negative margin, consistent with the fact that not all property developments in a 'normal' market deliver a positive return

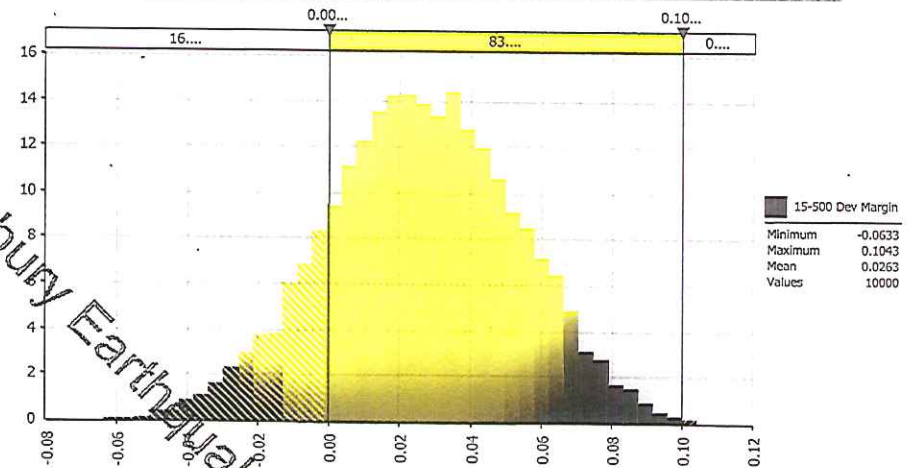
### 10 level - 500 sqm floor plate - Development margin



### Fifteen floor building - 500 sqm floor plate

- ▶ Based upon the above assumptions, buildings can be developed for:
- ▶ a rent of between \$430 m/2 and \$475 m/2 - likely \$460
- ▶ a land value of between \$800 m/2 and \$1,800 m/2 - likely \$1,000;
- ▶ 78% likely to deliver a margin to developers of 0% and 10%, and
- ▶ 21.2% of developments will however result in a negative margin, consistent with the fact that not all property developments in a 'normal' market deliver a positive return

### 15 level - 500 sqm floor plate - Development margin





## Key findings

- ▶ Incumbent landowners may have an advantage as many were established property investors who will be seeking to replace their level of investment income and who will accept lower margins to achieve this as compared with the developer group who acquire land to undertake a new development and who require a margin for their risk
- ▶ Any new capital to the Christchurch CBD will require a healthy development margin to reflect not only normal property development profit and risk, but also the added risk of earthquake related market uncertainty. Traditional aspirational property development margins have been in the 15% to 20% range. Given the uncertainty in the Christchurch market, an additional risk margin of at least 10% would be required in order to attract outside capital. Analysis completed on hypothetical office building developments indicates it will difficult, if not, impossible to achieve the required development margin to attract outside capital.

## Known issues for consideration

### Land values

Historically, land has had a different value depending upon its location which was in part attributed to its proximity to other strategic assets.

For the purpose of this study, we have used a flat land value which, while may not accurately reflect the future value, models the uncertainty as to where the key strategic assets in the city will be, e.g. business and retail precincts and location of the convention centre.

### Land sizes

The modelling has been undertaken based upon minimum land sizes being available. It is recognised that land parcels may be smaller than necessary to execute economic developments and accordingly, it is anticipated that appropriate amalgamation will need to occur to deliver land for economic developments.

### Yield

The range around the forecast yield has been selected based upon analysis of the data in the property owner survey and also following analysis of long run averages in the national market.

The range of 7.75% to 8.25% is lower than the average from the data provided in the survey, which reflected a degree of uncertainty caused by the Earthquakes.

It is however considered that given the level of support for redevelopments yielding around the 8% level, the actual yield in the market would trend to this level over time.

## Considering the likely quantum (sqm) of demand of commercial office space at the price points implied by the supply-side analysis

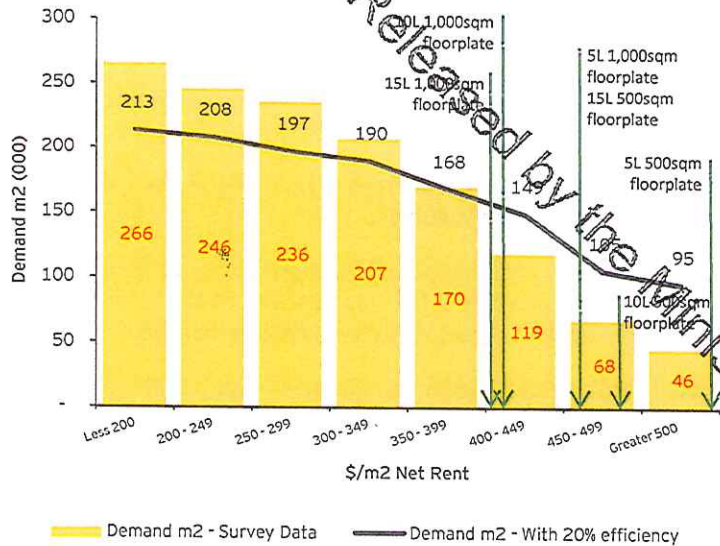
The analysis of the rental costs that are acceptable to both property owners presented in the previous section have been imposed on the demand curve presented in section E to identify the quantum of demand at the those price points.

The analysis show that for a 1,000 sqm floorplate building the rental charge to make the property viable from the perspective of the property owner is approximately \$460 per sqm.

At \$450 to \$499 per sqm the extrapolated demand for commercial office space would be approximately 68,000 sqm. This drops to 46,000 sqm at \$500 more per sqm.

The viability of all the buildings is demonstrated graphically in the following table.

Commercial office space - Demand curve with implied supply price points by building type



The graph demonstrates that 10-level and 15-level storey buildings have the lowest rental price points but would still attract less than half the tenants that wish to return to the Central City Area.

The analysis demonstrates that in order to make the Central City Area viable either:

- ▶ The quantum of demand has to be increased at the price points that make the rebuild viable for property owners, by identifying opportunities for tenants to accept higher rents than what they are currently willing to pay; and/or
- ▶ The supply side price points need to be reduced to levels that a higher number of tenants are willing to pay

Identifying scenarios where the gaps between demand and supply can be narrowed

We have considered the impact of rental efficiencies.

Rental efficiencies

Colliers have undertaken a New Zealand Workplace Report in 2010, the details of which are discussed further in Appendix B.

The findings showed that on average, workstations in Premium Office in New Zealand provided 14.6 sqm / employee workstation. This average will be higher as a result of the historical Christchurch data.

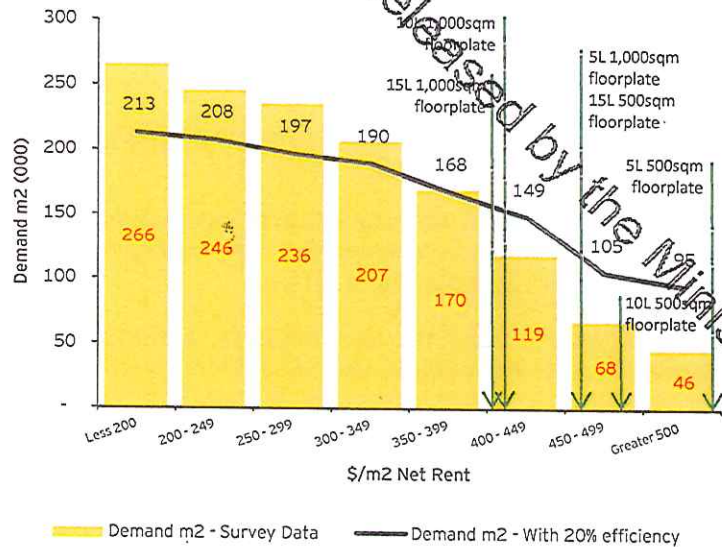
Analysis of the information provided in the Tenants survey relating to forecast rents has indicated an increase from \$223/sqm to \$312/sqm, which is attributed to:

- ▶ Increase absorbed by efficiency \$37 (71%)
- ▶ Increase due to Earthquake \$15 (29%)

Analysis was undertaken on a subset of professional service firms and the like who have workstation environments. It is noted from data collected in the tenant Survey for this group showed a weighted average of 19.5 sqm / employee workstation which is significantly above the 14.6 sqm national average from the Colliers Workplace Report.

If there is a further 20% efficiency factor applied to forecast rental levels to bring the sqm / employee workstation on line with national averages, Net Rents can increase by 25% without a significant financial impact on tenants. The following graph summarises the economic impact of considering the opportunity for tenants to be made efficient on their space requirements.

Commercial office space - Demand curve with secondary curve showing demand with 20% efficiency



Solutions will be required that will:

- ▶ Encourage timely redevelopment of Central City Area
- ▶ Ensure that any benefit is accorded to the property and are not a benefit to landowner
- ▶ Encourage redevelopment of the business activity in the Central City Area and not just redevelopment of buildings

One option for consideration is the introduction of an economic zone within the Central City Area which could allow for some degree of tax incentives to developers and property owners who comply with certain criteria.

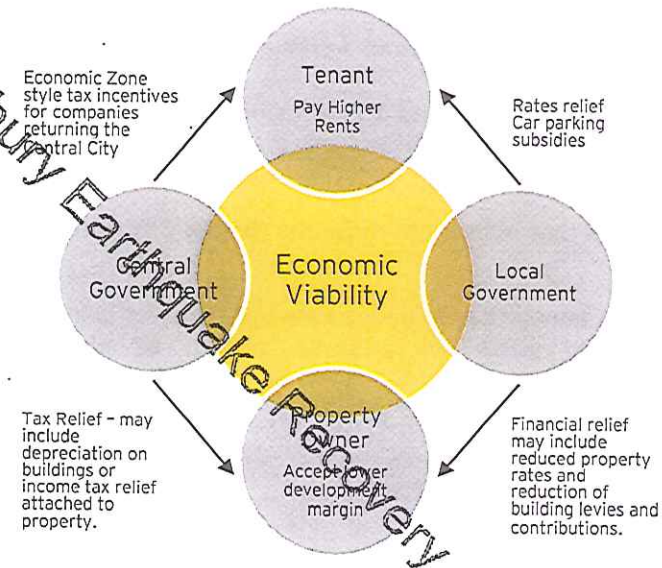
The following table demonstrates the stakeholders who may both benefit and contribute through such an economic zone and the possible interrelationship of benefits.

### Bridge to economic viability (price and efficiency)

While there are strong signals from property owners in favour of redevelopment coupled with significant demand from tenants for commercial office space in the redeveloped Central City Area, based on our survey findings and analysis a limited portion of this demand is economically viable when rent levels required by property owners are considered.

The economics of the CCP in its current form are limited as there is a pricing mismatch between the price at which properties can be developed and at which some tenants can afford to pay. Without a timely solution, opportunistic development meeting the needs of a small subset of stakeholders will likely occur.

CERA will need to consider options that will enable the objectives of the various stakeholders to be accommodated in a way that allocates a portion of the economic cost to respective groups.



### An example

To demonstrate how this could be applied, with a simple sharing relationship between Central Government and property owner where a tax relief of 60% of tax due is accorded for a period of 10 years, new office space could be delivered to the market at rates between \$340/sqm and \$360/sqm while earning a developers margin of between 0% and 10% and recovering \$1,000/sqm for their land.

Such an example would ensure:

- ▶ Development that was previously marginal is accelerated, as tax relief can translate directly to lower net rentals
- ▶ Government achieve a marginal increase in tax revenue collection
- ▶ Developers earn a margin, which while at a low level, has a higher prospect of attracting long term international development / investment capital

### Assessment of likely commercial office stock available

CERA has provided a database that provides the current status of commercial office property in the Central City Area. Commercial properties that are included in the database are categorised in one of the following descriptions:

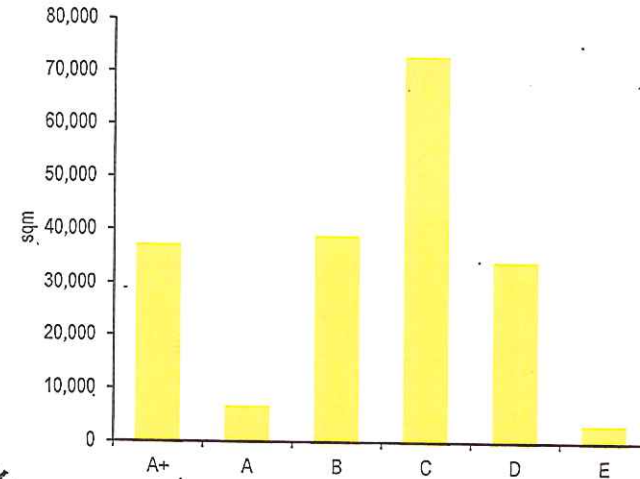
- ▶ Demolish
- ▶ Part Demolish
- ▶ DEE ("Detailed Engineering Evaluation")
- ▶ Make Safe

The pre-Earthquake stock has been adjusted to reflect buildings that have been demolished or are likely to be demolished or have a DEE review based on the database provided to us by CERA.

Based on this analysis we have determined that 204,000 sqm of commercial office stock is projected to remain (i.e. is not tagged as "demolish", "part demolish" or "DEE") and a further 9,000 sqm is tagged as "Make Safe".

The status of remaining stock is subject to change on a regular basis and hence there is still a significant level of uncertainty to the nature, condition and quantum of this stock.

The chart below shows what is anticipated to be the remaining stock by grade of building.



There is a degree of confidence that the A+, A and B grade stock can be (or has been) upgraded to comply with future building codes. This represents 87,700 sqm of commercial office stock.

However, there is significant uncertainty as to whether the remaining office stock of approximately 116,300 sqm can be economically repaired.

Even if the stock could be repaired, given the fact that only 25% of tenants want to return to a repaired building, it is likely that these buildings will remain undesirable in the short to medium term.

For the purpose of our example, overleaf we have discounted them from our calculation.

The remaining stock (including those tagged as make safe), by location and grade classification is shown in the table below.

Remaining and make safe stock by location and grade

Location source	Grade (1)		Total remaining stock	Total demand	Surplus/(required) Stock vs demand (Total remaining)	Surplus/(required) Stock vs demand (Grades A+,A, B remaining)	Limit occupancy of remaining A+, A & B stock to 25% of demand	Existing stock potential surplus	Revised surplus/(required) Stock vs demand (Grades A+,A, B remaining)
	A+, A, B	C,D,E							
	a	b	a + b = c	d	c - d = e	a - d = f	d x 25% = g	a - g = h	f - h = i
Area of Armagh St, Durham St, Cambridge Tce & Rolleston Ave	23,556	15,462	39,018	47,166	(8,148)	(23,610)	11,792	11,764	(35,375)
Area of Victoria St	2,164	17,860	20,024	16,229	3,795	(14,065)	4,057	-	(14,065)
Area of Peterborough St, Manchester St, Oxford Tce & Durham St	3,508	11,371	14,879	3,107	11,772	401	777	2,731	(2,330)
Area of Oxford Tce, Manchester St, Gloucester St & Durham St	12,098	3,937	16,035	12,624	3,411	(526)	3,156	8,942	(9,468)
Area of Gloucester St, Manchester St, Hereford St & Oxford Tce	14,594	21,141	35,735	60,011	(24,276)	(45,417)	15,003	-	(45,417)
Area of Hereford St, Manchester St, Lichfield St & Oxford Tce	-	4,778	4,778	43,447	(38,669)	(43,447)	10,862	-	(43,447)
Area of Lichfield St, Barbadoes St, Moorhouse Ave & Antigua St	3,245	9,435	12,680	18,415	(5,735)	(15,170)	4,604	-	(15,170)
Area of High St	14,000	12,249	26,249	1,076	25,173	12,924	269	13,731	(807)
Area of Bealey Ave, Barbadoes St, Cashel St & Manchester St	14,535	20,067	34,601	10,826	23,775	3,709	2,706	11,829	(8,119)
	87,700	116,300	203,999	212,900	(8,901)	(125,200)	53,225	48,997	(174,197)

The table shows the possible high level supply and demand for commercial office space by location.

We have used an extrapolated demand figure of 212,900 sqm for commercial office space (that assumes 20% rental efficiencies as described earlier in the section can be achieved). To provide an upper limited of the required level of commercial office stock we have made an assumption that only 25% of tenants by location will be willing to lease an existing building. This is based on the responses within the tenant's survey.

We acknowledge that the assumption is a "worse case" scenario and in reality several of the A+, A and B buildings that are likely to remain are currently fully tenanted (e.g. HSBC Tower and the Civic Building).

Commercial-in-Confidence

The chart shows that the greatest level of demand for new buildings will be in the following three areas:

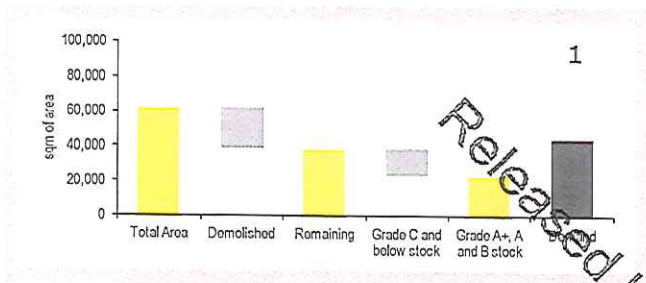
- ▶ Area of Armagh St, Durham St, Cambridge Tce and Rolleston Ave (Arts)
- ▶ Area of Gloucester St, Manchester St, Hereford St and Oxford Tce (Square)
- ▶ Area of Hereford St, Manchester St, St. Hilfield St and Oxford Tce (Cashel Mall)

The difference between projected demand at the revised efficiency levels and supply of existing A+, A and B Grade buildings is 125,200 sqm. This indicates that approximately 25 buildings of 5 stories and 1,000 floorplates will be required.

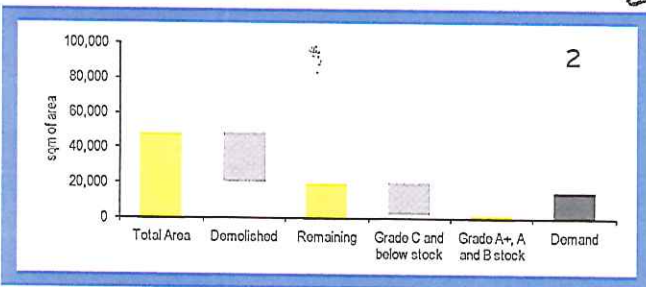
When an adjustment is made for the potential vacancy rates in the existing buildings (based on the assumption that only 25% of tenants by location will be willing to lease an existing building), the projected requirements are 174,200 sqm (which represents 35 buildings).

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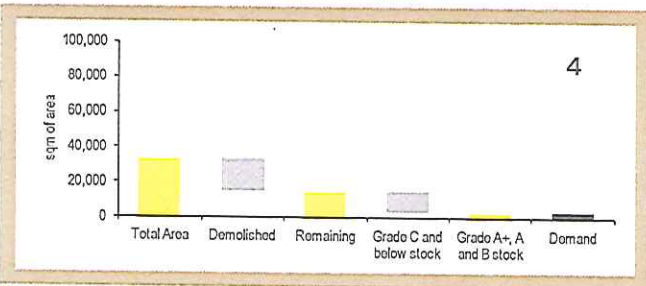
Area of Armagh St, Durham, St, Cambridge Tce & Rolleston Ave



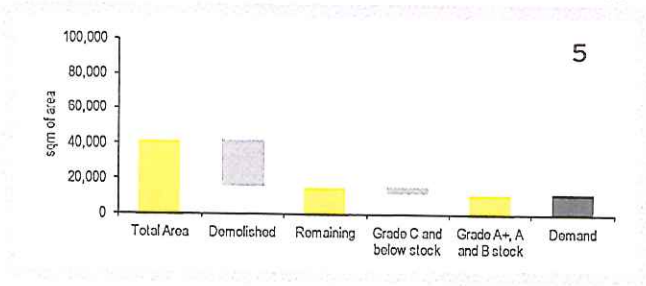
Area of Victoria St



Area of Peterborough St, Manchester St, Oxford Tce & Durham St

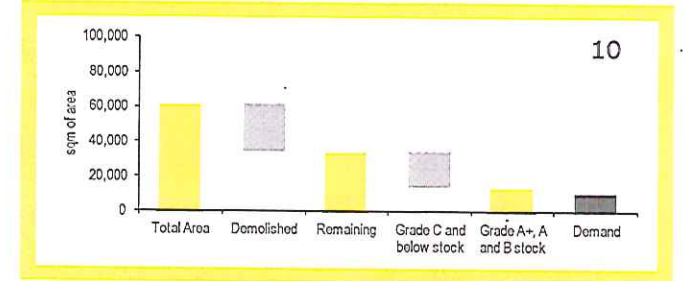


Area of Oxford Tce, Manchester St, Gloucester St & Durham St

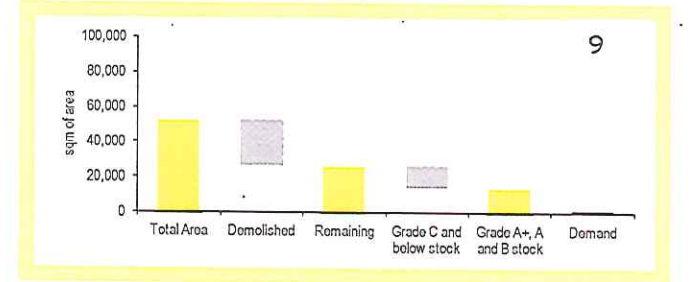


This chart shows the pre-Earthquake stock of commercial office space by location, adjusted for the quantum of stock that is tagged as demolished, part demolished or DEE on the CERA demolition database. Against this we have plotted extrapolated demand for each location based on commercial office tenants' preferred location weighted by the quantum of sqm they will require.

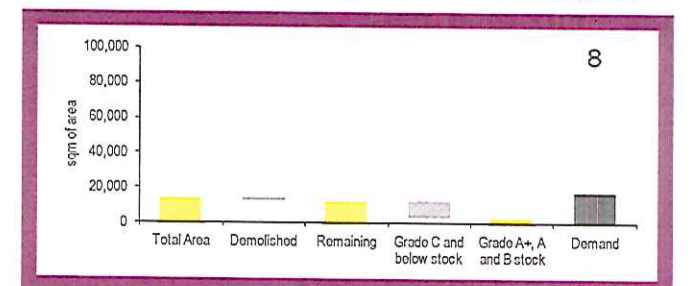
Area of Bealey Ave, Fitzgerald Ave, Moorhouse Ave & Barbadoes St



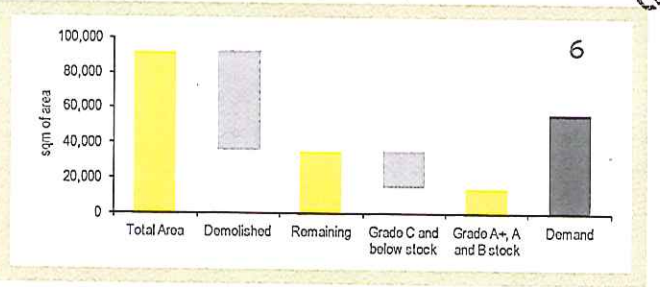
Area of High St



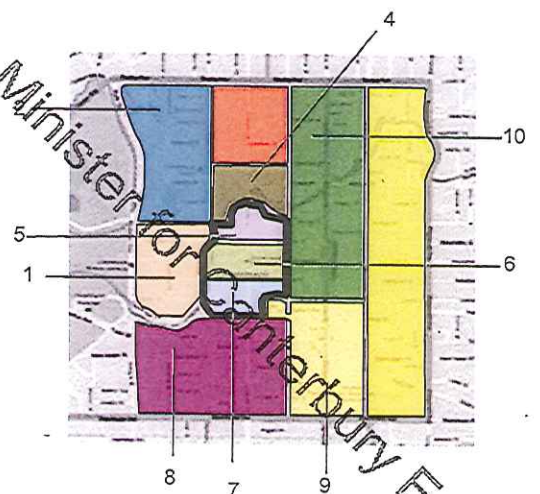
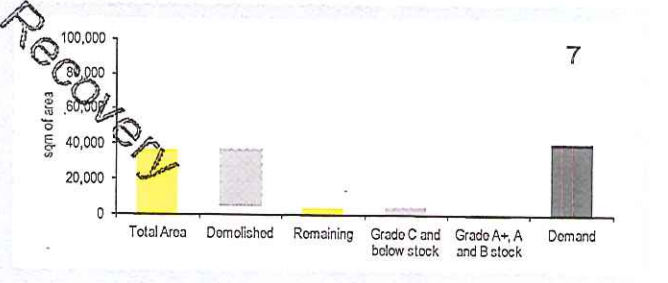
Area of Lichfield St, Barbadoes St, Moorhouse Ave & Antigua St



Area of Gloucester St, Manchester St, Hereford St & Oxford Tce



Area of Hereford St, Manchester St, Lichfield St & Oxford Tce



## Appendix J Building cost summary

### 500 sqm high rise building

Building element	5 storey \$	10 storey \$	15 storey \$
Design / management	2,849,560	5,996,226	8,940,223
Civils / foundation	2,054,728	2,802,850	6,731,775
Structure	614,157	1,761,318	1,958,387
Envelope / roof	1,619,698	2,542,698	3,466,698
Fit-out	578,255	959,525	1,287,388
Services	1,656,000	4,130,700	6,195,980
Contingency	374,139	751,364	1,150,774
<b>Total</b>	<b>9,746,537</b>	<b>19,564,681</b>	<b>29,731,225</b>

### 1000 sqm high rise building

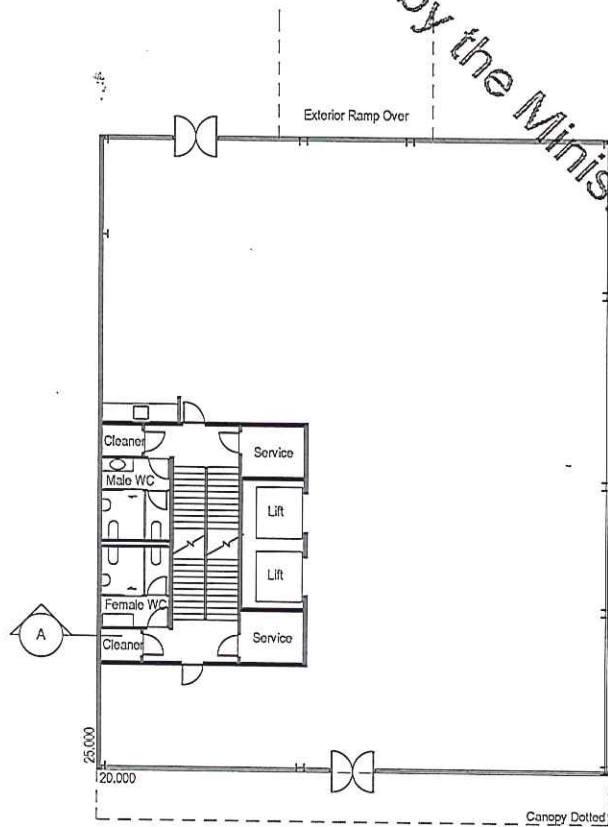
Building element	5 Storey \$	10 Storey \$	15 Storey \$
Design / management	4,558,973	9,416,851	14,544,167
Civils / foundation	3,778,646	7,345,344	11,868,357
Structure	1,203,910	2,407,820	3,611,730
Envelope / roof	2,389,536	4,558,698	6,798,698
Fit-out	775,755	1,305,842	1,835,888
Services	2,710,990	6,082,480	10,208,830
Contingency	615,699	1,243,014	1,952,299
<b>Total</b>	<b>16,033,509</b>	<b>32,360,049</b>	<b>50,819,969</b>



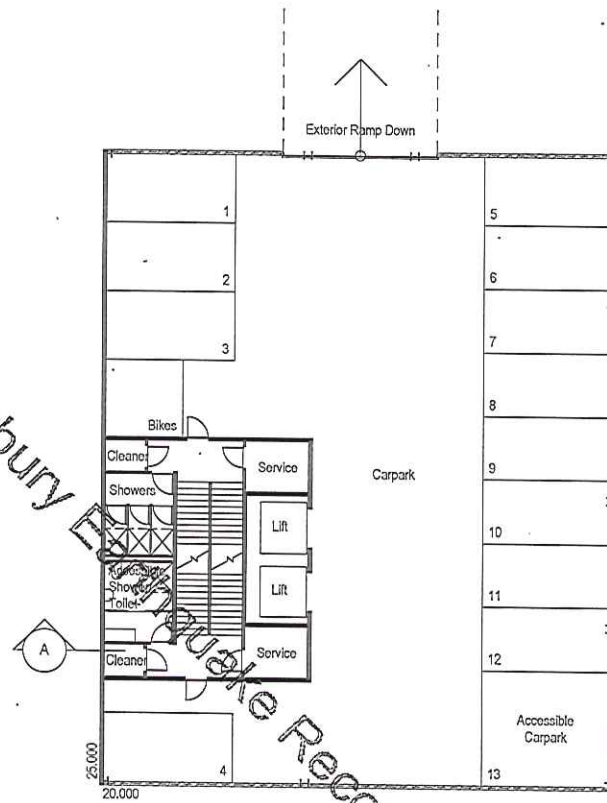
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Appendix K Sample building designs

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Ground, Second, Third, Fourth Floor



First Floor Carpark

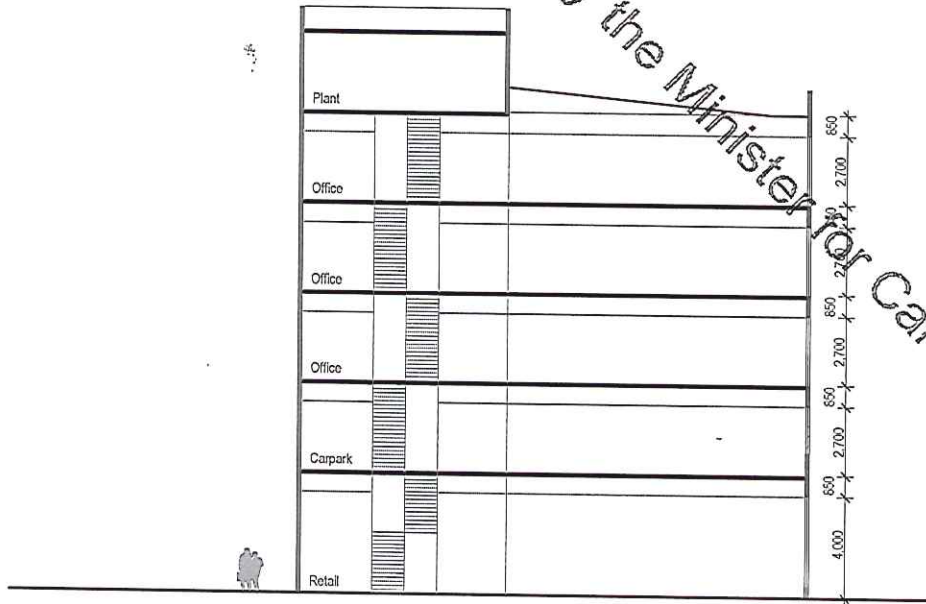
# 5 Level 500m<sup>2</sup> Office Building - Floor Plans

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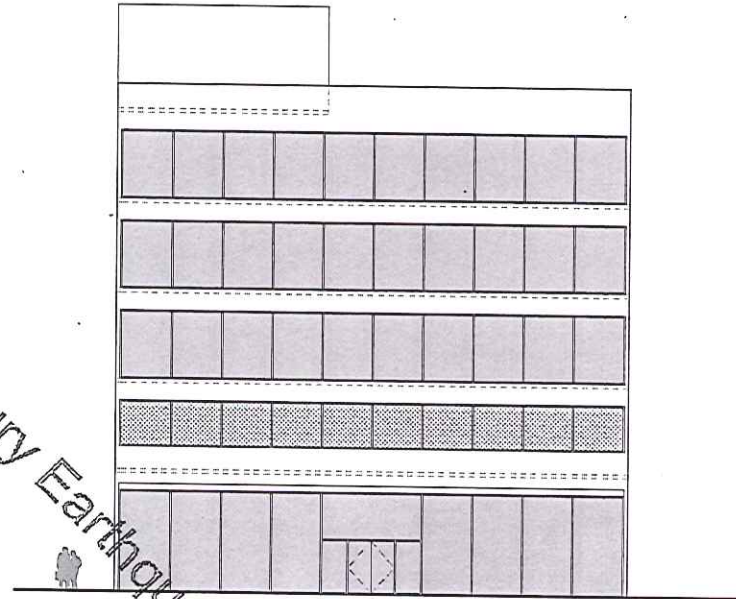
Scale 1:200 @ A3



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Typical Section A



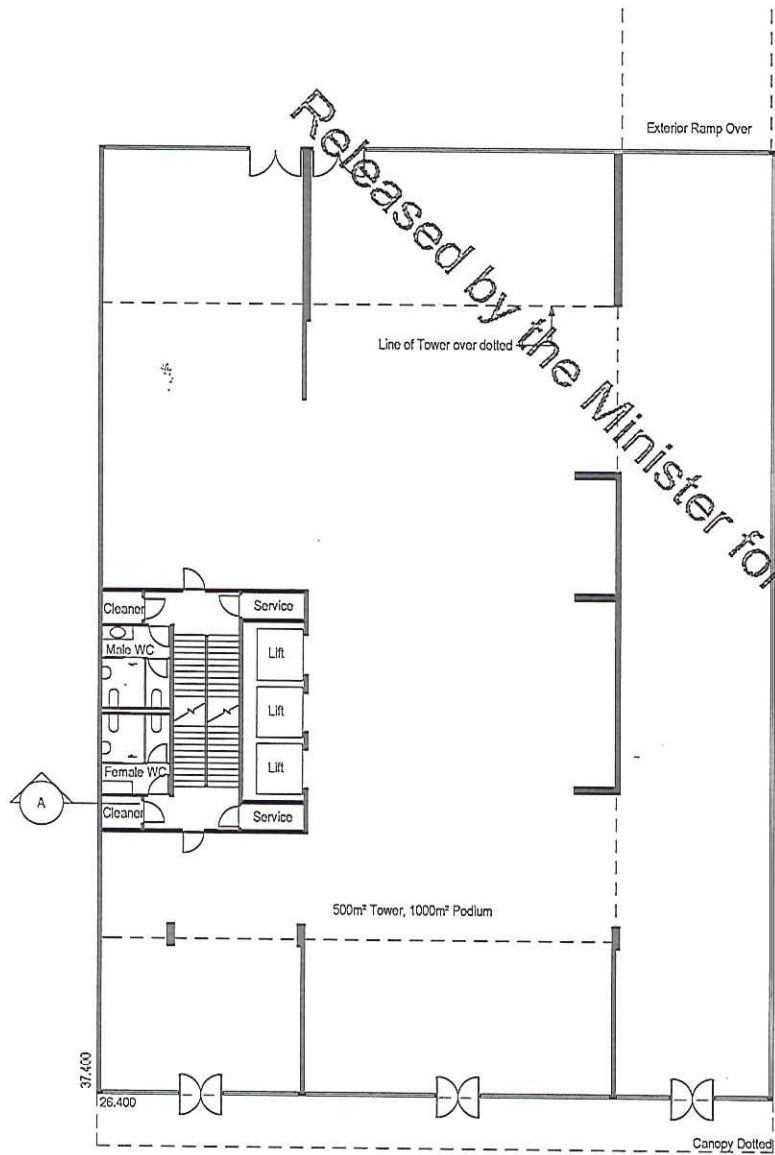
Street Elevation

# 5 Level 500m<sup>2</sup> Office Building - Section & Elevation

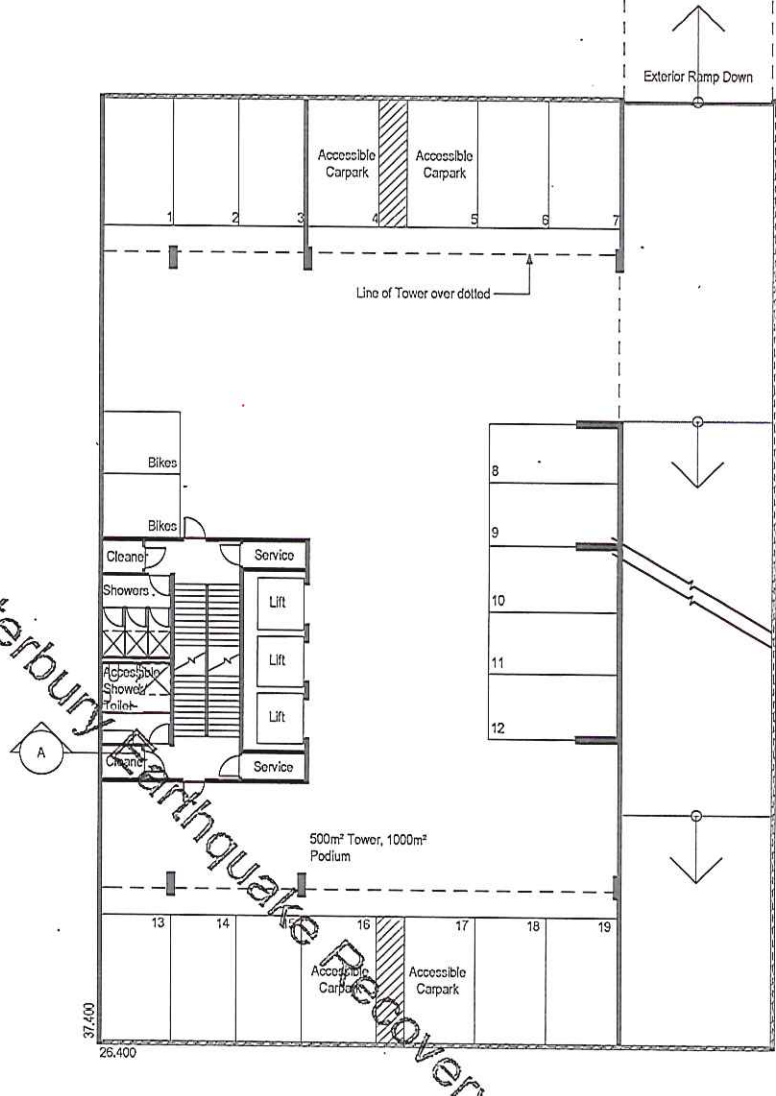
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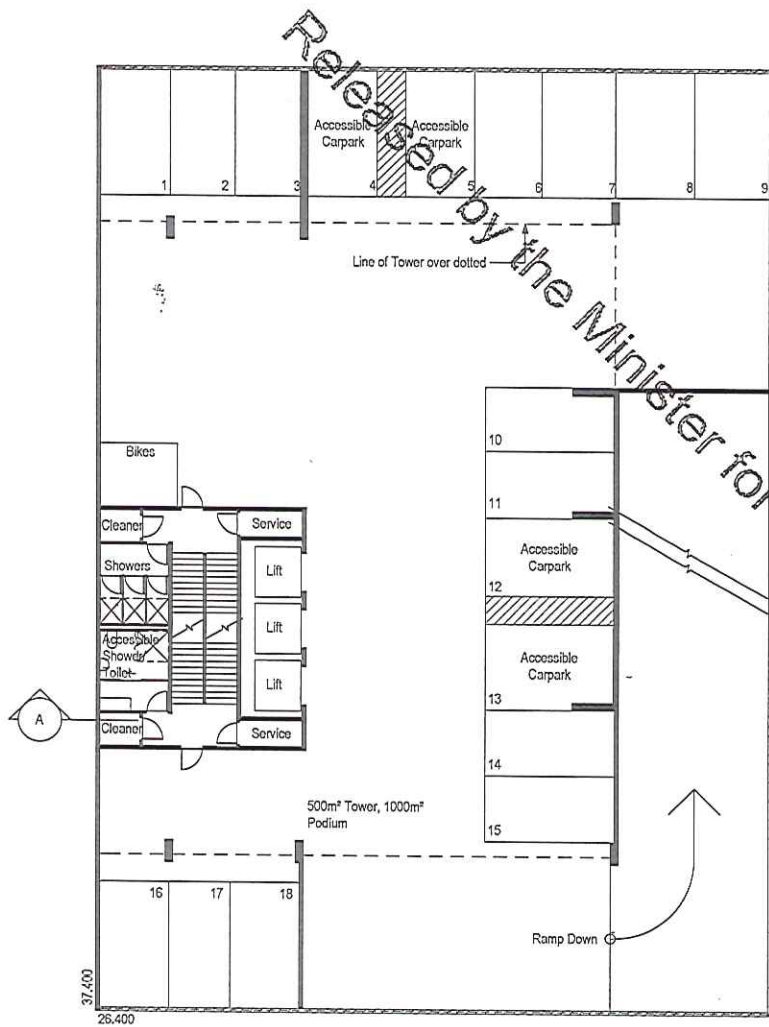




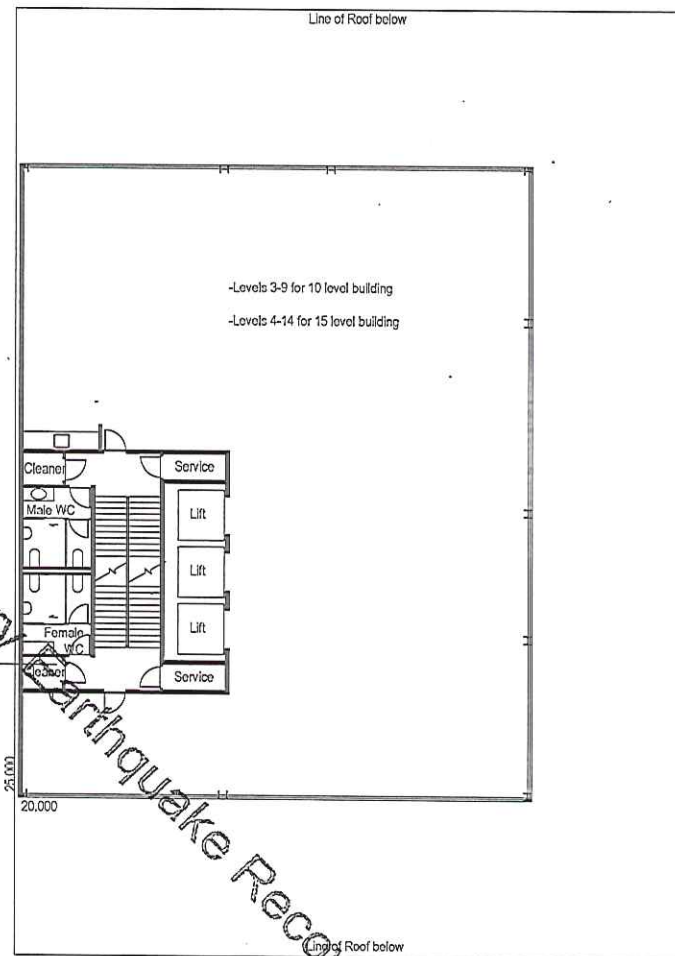
Ground Floor



First Floor Carpark



Second Floor Carpark Level  
(and Third Floor to 15 Level Building)



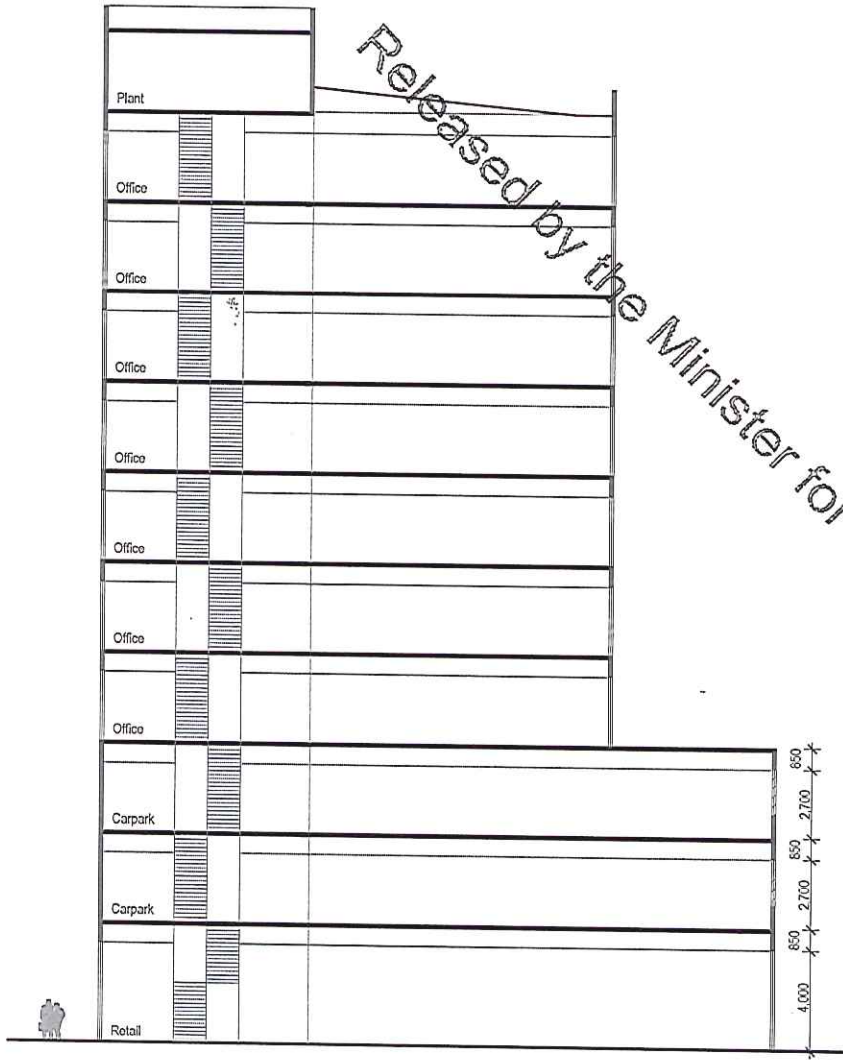
Tower Levels

# 10 + 15 Level Office Building -Floor Plans

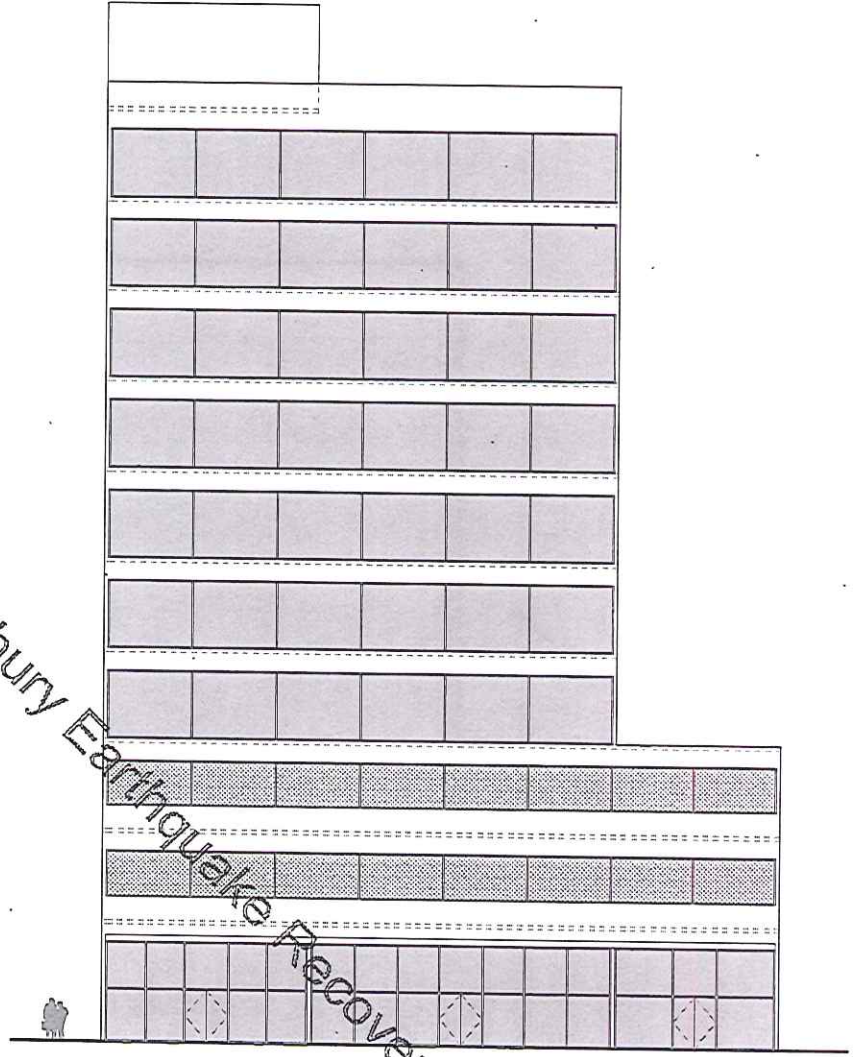
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Section A



Street Elevation

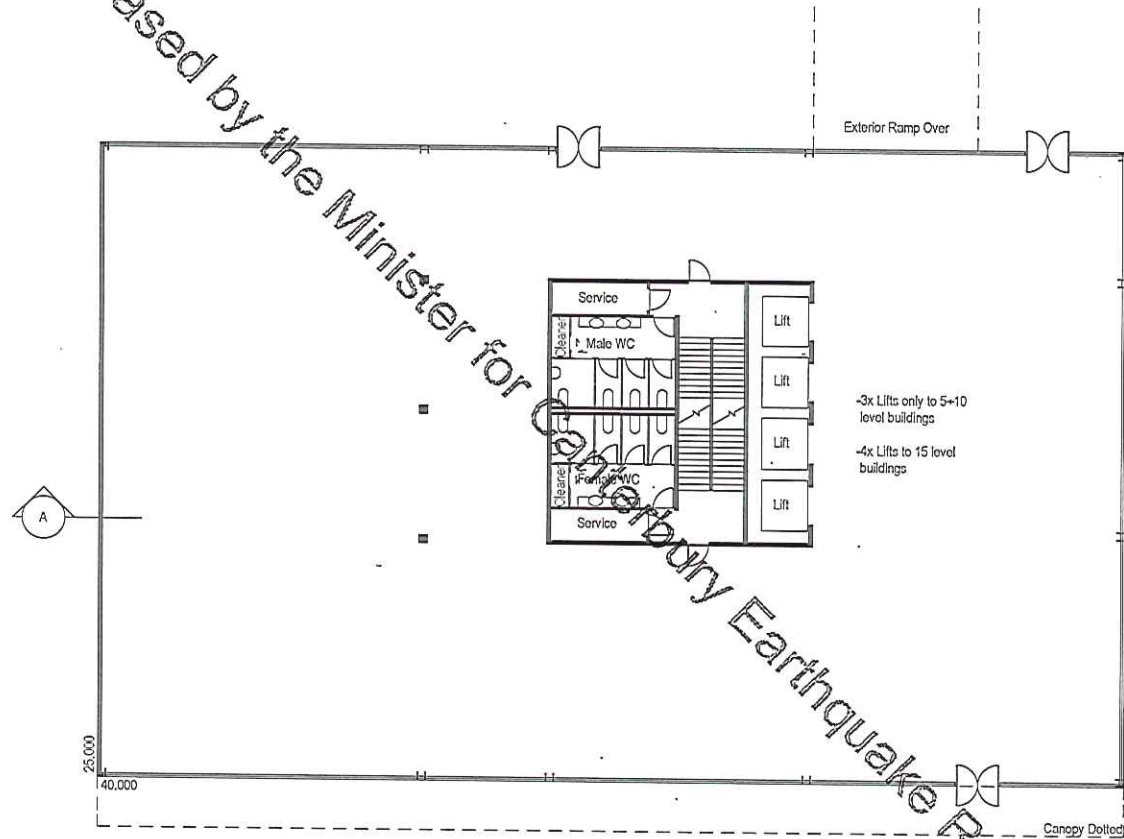
# 10 Level Office Building -Section & Elevation

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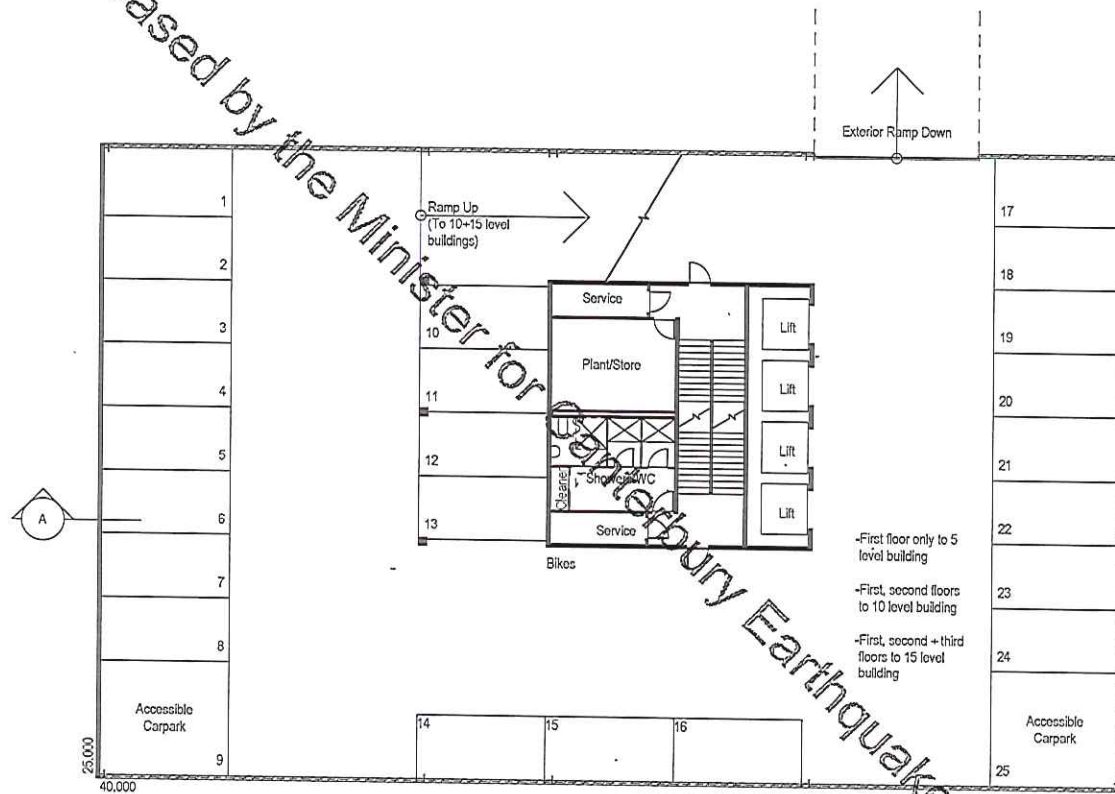
# 5, 10 + 15 Level Office Building - Floor Plan

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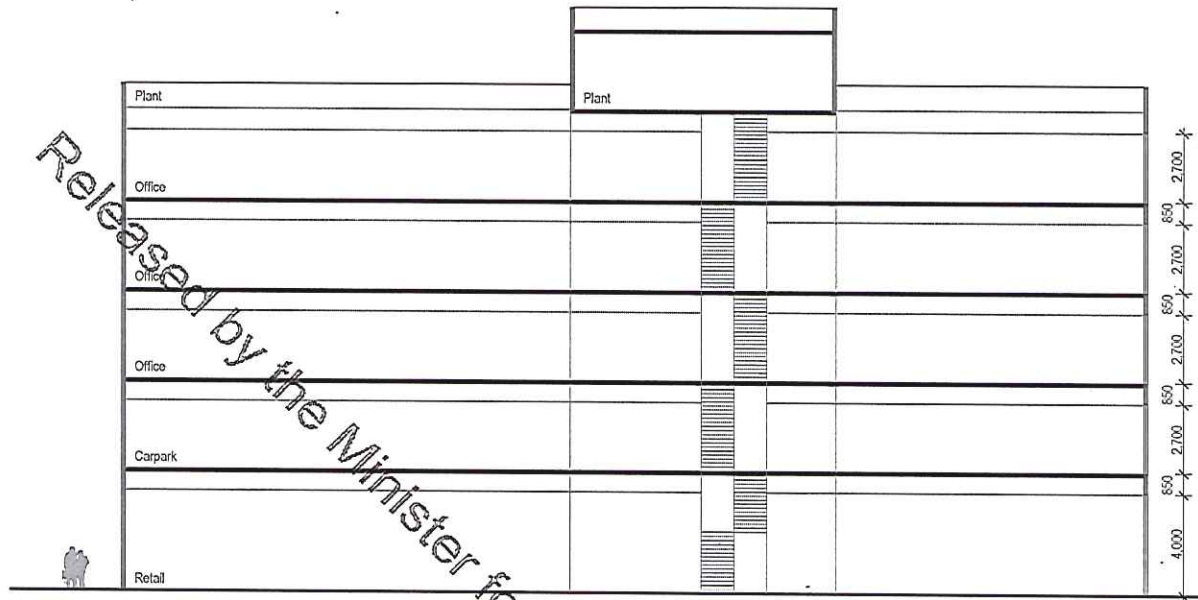


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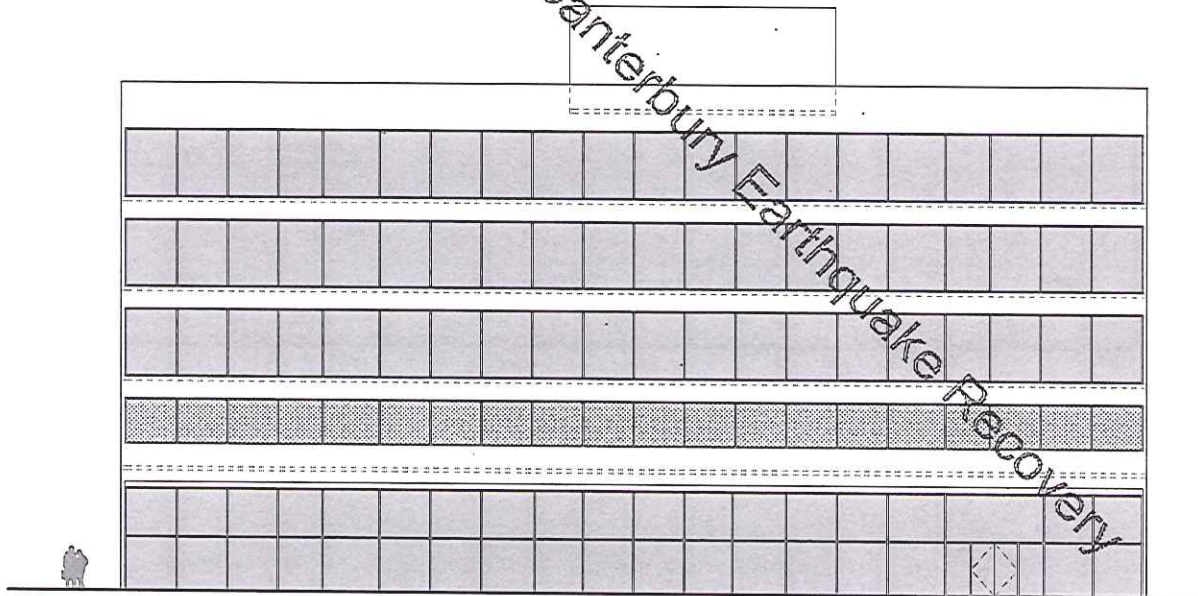


Carpark Levels





Section A



Street Elevation

5, 10 + 15 Level Office Building - Section & Elevation

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