

Attachment B

Affordable Rental Housing Analysis

117 Victoria Street, Potts Point

SEPP Housing 2021, Chapter 2, Part 3 section 47(2)
Assessment





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Executive Summary

Ceeroose 'The Proponent' have lodged a Development Application (DA) for a property located at 117 Victoria Street, Potts Point. The existing building currently provides 45 rental apartments (10 x studio, 34 x one-bedroom, 1 x two-bedroom) leased at a discount to the median rent level for the Potts Point postcode (2011).

City of Sydney have requested an assessment to be completed against the State Environmental Planning Policy (Housing) 2021, Chapter 2, Part 3 section 47(2). The purpose of this study is to:

- investigate whether 117 Victoria Street meets the criteria for becoming a low rental dwelling building prior to 28 January 2000 (see Section 2)
- provide an assessment for parts a), b), c), e) and g) (see Section 3).

Investigation of whether the property was a low rental dwelling building prior to 28 January 2000

A search of the rental history of the property found that the property was originally developed as luxury apartments in the 1960-70s and, in 1993, asking weekly rents at the property (\$120-150 for studios and \$140-185 for 1 bedrooms) were within the median range for newly leased units in Potts Point.

A comparison of newspaper rental listings for Potts Point identified 164 unique listings between December 1999 and January 2000:

- For studios, while there were no units listed for the property in this period, the median rental rate of other listings in the Potts Point suburb (n=55) was \$185/week. This is slightly below the estimated Sydney LGA median for a studio (\$194/week) at that time estimated by applying the 2001 Census share
- For one-bedroom units, rental rates from listings in the property (\$220/week) in this period (n=3) **were the same as the median rental rates of other listings in the Potts Point suburb** when filtered to those unfurnished and without an internal laundry (n=55). Two property with multiple listings over December 1999 and January 2000 at equivalent rents to 117 Victoria Street were 3 Grantham Street and 19-29 Tusculum Street.

ABS Census and rental bond data were identified as two key sources for further analysis. The Census data reports all on private rentals, whereas the rental bond data covers only new bond lodgements.

Analysis of census data showed that median asking rentals at Potts Point have been lower than Sydney LGA-wide rentals over the last 20 years. In 2001, the median of the Potts Point studio and 1-bedroom unit rates (based on postcode) were 91% and 87% of the respective Sydney LGA-wide figures. Comparing the Census figures with the unit rental history of the property found that:

- For studio units, the asking rates were equivalent to the estimated Potts Points median rental rates and for those of the broader Sydney LGA in the early 2000s, although no listings could be identified for the property prior to January 28, 2000.
- For one-bedroom units, the rates aligned closely enough with the Census data to reasonably suggest they reflect the median rent values for Potts Point between 1998 and 2000.
- Analysis of rental bonds data also showed that one-bedroom units had asking rates closely enough aligned to be considered equivalent to the median for Potts Point between 1998 and 2000.
- From 2008 onwards, unit rental rates grew slower than market rates leading to the current situation where some units are being rented at levels 20-30% below market rates.

The same analysis was performed for 3 Grantham Street and 19-29 Tusculum Street. Rents at 3 Grantham Street—both for studios and one-bedrooms—have kept pace with the median for Potts Point. Rents for the one-bedroom units at 19-29 Tusculum Street have also broadly kept pace with the Potts Point median but are on average offered at a discount of 15% to the median.

Overall, there is evidence of **studio and one-bedroom unit rental rates at 117 Victoria Street being at or close to median rates of similar properties** in Potts Point prior to 28 January 2000 and that the property only fell behind the median in the second half of the 2000s as a result of a lack of investment.

Assessment against the policy

Notwithstanding the findings above, an assessment was undertaken against parts a), b), c), e) and g) of Chapter 2, Part 3 Section 47(2). Key findings are summarised in the table below:

Figure 1 Summary of assessment findings

Assessment criteria	Summary of findings
(A) Whether the development will reduce the amount of affordable housing in the area	The development will reduce the supply of affordable rental housing in Potts Point, although this reduction is somewhat offset through the provision of five affordable housing dwellings in the proposed development. The development would increase diversity of housing in the area and attract more families.
(B) Whether there is available sufficient comparable accommodation to satisfy the demand for the accommodation	The current vacancy rate for Sydney is estimated at 1.7%, reflecting the recent housing challenges and spikes across Sydney. Outside of these recent construction cost and housing cost increases, the analysis finds that in Potts Point, up to 752 dwellings (or 29.7%), with similar rates in Elizabeth Bay, Rushcutters Bay and Woolloomooloo.
(C) Whether the development is likely to result in adverse social and economic effects on the general community	The development is not expected to have a significant impact across any of the potential adverse effects. The existing property units are only affordable for moderate-income households and with sufficient notice, can minimise the risk of displacement or unsafe living conditions. There is no indication that these particular households are vulnerable to the extent that they wouldn't be able to secure alternative accommodation. The Proponent has committed to providing \$1,000 to each tenancy to assist with removalist and/or future rental expenses.
(E) The extent to which the development will contribute to a cumulative loss of affordable housing in the local government area	The current macroeconomic conditions have led to a sharp increase in housing and rental costs, but the analysis shows that Potts Point is one of the most affordable postcodes in the Sydney LGA. Given the high levels of comparatively affordable housing stock in Potts Point, there is an opportunity to regenerate older buildings to diversify the housing supply, particularly by accommodating larger families. This approach would enhance the area's housing options while maintaining its relative affordability, ensuring a broader range of housing needs is met within the community.
(G) Whether the imposition of an affordable housing condition requiring the payment of a monetary contribution would adequately mitigate the reduction of affordable housing resulting from the development	Given the current constraints on development feasibility, the monetary contribution specified under the SEPP is unlikely to sufficiently mitigate the loss of affordable rental housing within the Sydney LGA. However, the development's provision of medium-density flats for families will contribute to accommodating the LGA's growing population in a more sustainable and balanced way.

1 Introduction

1.1 DEVELOPMENT APPLICATION

Ceerose 'The Proponent' have lodged a Development Application (DA) for a property located at 117 Victoria Street, Potts Point. The DA seeks consent for the demolition of existing structures, excavation, and construction of a part four, part eight storey residential flat building with roof top terrace, landscaping and basement parking in accordance with SEPP Housing Division 1 In-fill affordable housing provisions, seeking a 21% floor space bonus and providing 10.5% affordable housing.

The proposed unit mix is as follows:

- 5 x 1 - bedroom affordable housing units (period of 15 years through a CHP)
- 4 x 2 - bedroom units
- 11 x 3 - bedroom units
- 5 x 4 - bedroom units

The existing building currently provides 45 rental apartments (10 x studio, 34 x one-bedroom, 1 x two-bedroom) which are leased at a discount to the median rent level for the Potts Point postcode (2011).

1.2 CHAPTER 2, PART 3 SECTION 47(2) REQUIREMENTS

City of Sydney have requested an assessment to be completed against the State Environmental Planning Policy (Housing) 2021, Chapter 2, Part 3 section 47(2). Part 3 covers the impact of a reduction in the availability of affordable housing. Section 47(2) states: In determining whether to grant development consent, the consent authority must take into account the Guidelines for the Retention of Existing Affordable Rental Housing, published by the Department in October 2009 and the following —

- a) whether the development will reduce the amount of affordable housing in the area
- b) whether there is available sufficient comparable accommodation to satisfy the demand for the accommodation
- c) whether the development is likely to result in adverse social and economic effects on the general community
- d) whether adequate arrangements have been made to assist the residents who are likely to be displaced to find comparable accommodation
- e) the extent to which the development will contribute to a cumulative loss of affordable housing in the local government area,
- f) whether the building is structurally sound, including—
 - (i) the extent to which the building complies with relevant fire safety requirements, and
 - (ii) the estimated cost of carrying out work necessary to ensure the building is structurally sound and complies with relevant fire safety requirements,
- g) whether the imposition of an affordable housing condition requiring the payment of a monetary contribution would adequately mitigate the reduction of affordable housing resulting from the development
- h) for a boarding house—the financial viability of the continued use of the boarding house.

Page 4 of the Guidelines for the Retention of Existing Affordable Rental Housing state that Part 3 only applies to residential flat buildings that became low rental dwellings before 28 January 2000.

1.3 PURPOSE OF THIS STUDY

The purpose of this study is to:

- investigate whether 117 Victoria Street meets the criteria for becoming a low rental dwelling building prior to 28 January 2000 (see Section 2)
- provide an assessment for parts a), b), c), e) and g) identified in the list above (see Section 3)

2 Applicability of the policy

Chapter 2, Part 3 section 47(2) of the SEPP (Housing) 2021 only applies to buildings where the units were leased for below the median rent for the area prior to 28 January 2000. This section investigates whether 117 Victoria Street meets this requirement.

2.1 RENTAL HISTORY OF 117 VICTORIA STREET AGAINST MARKET

Key findings:

- The property was originally developed as luxury apartments in the 1960-70s
- In 1993, asking weekly rents at the property (\$120-150 for studios and \$140-185 for 1-bedrooms) were within the median range of other marketed units in Potts Point

A search of the Sydney Morning Herald (SMH) archives found the first reference to the property at 117 Victoria Street on Wednesday, 26 February 1964. The property was advertised as the FLORIDA CAR-O-TEL offering 44 luxury holiday apartments with a daily rate of 90 shillings per day or 25 guineas per week.

The first reference found for the property in the flats to let section of the SMH was on Wednesday, 2 November 1977. The accommodation was described as bright, modern, spacious, fully furnished luxury flats available for \$45 per week.

On Wednesday, 28 April 1993, an open day was advertised for the property by rental agency O'Connor Nielsen P/L. The accommodation was described as stylish, refurbished, newly carpeted apartments, many with views, in a conveniently located security building close to the station. The 1 bedrooms were advertised for between \$140/week and \$185/week and the studios for between \$120/week and \$150/week.

In the June quarter of 1993, the median rent for a newly leased 1-bedroom flat within the current Sydney Local Government Area (LGA) geographical boundary was \$160 per week. Historically, the median rent for a 1-bedroom unit in Potts Point and the surrounding postcode area 2011 (encompassing Potts Point, Elizabeth Bay, Rushcutters Bay, and Woolloomooloo) has been approximately 10% lower than the broader Sydney LGA. As such, the 1-bedroom units in these areas were not considered low-cost in 1993.

The following sections will examine whether, over the intervening seven-year period up until January 28, 2000, the median asking rents for units at 117 Victoria Street fell below the median for the surrounding area.

2.2 MEDIAN RENTAL DATA AVAILABILITY AND LIMITATIONS

Key findings:

- Newspaper listings are a key data source for rental listings prior to 28 January 2000
- Units listed in newspapers are typically biased towards the higher end of the market
- Census data reports on all private rentals, whereas the rental bond data covers only new bond lodgements.
- There is a lag period between median rents recorded for the 5-yearly Census and rental bond data.

The authoritative source of data on rent movements in NSW is the Rent and Sales report published by the Department of Communities and Justice. The Rental statistics are derived from information provided on the rental bond lodgement form that is lodged with the Renting & Strata Services Branch (RSSB) of the Office of Fair Trading. A trend series for median rents for 1-bedroom units for the current Sydney LGA geographical boundary is available starting from March 1990. However, information by postcode (Potts Point suburb is located in postcode area 2011) and for bedsitters/studios is only available from September 2017.

Other measures of rents include the 5-yearly Census and media listings. While today, internet-based search engines such as domain.com.au (launched in 1999) and realestate.com.au (launched in 1995) are the go-to means of searching for rental listings, newspaper listings were an important source for rental listings in prior to 28 January 2000.

Issue 51 of the Rent and Sales report (March qtr. 2000 for rents) compared the median rents estimated from the rental bond lodgements with those estimated from newspaper listings and the Census. The report outlined the findings of a 1995 study which compared the rental bond board and newspaper advertisement collections and found that newspaper advertisements comprised only between 10 to 15 per cent of the new bond collection. The distribution of rents between the two sources was also found to differ significantly with the newspaper collection biased toward the higher end of the market, as illustrated in Table 1.

Table 1: Distribution of rents per Week – Sydney Metro Newspaper and Rental Bond Board, 1996

Rent per week	Newspaper	Rental Bond Board
Below \$150	16.30%	39.80%
\$150 - \$225	37.90%	43.50%
\$225+	45.80%	16.70%
Total	100.00%	100.00%

Source: *Housing New South Wales, Rent and Sales report no. 51 (pg. 1)*

Issue 51 also compared the median rents estimated from the 1996 Census for Sydney LGAs with the rental bond medians (for LGAs with 30 or more new bonds) for the equivalent quarter (September quarter 1996). The Census includes all rents whereas the bond data only covers rents for newly leased properties. It was found that for more than 70% of Sydney's LGAs the median rent for newly leased properties was significantly higher than for all tenancies of a corresponding property type. For 1-bedroom flats, the Census median was found to correspond to the September quarter 1995 rental bond median, a lag of four quarters.

The following sections will present a comparison of various data sources, including newspaper rental listings for the Potts Point suburb from December 1999/January 2000, Census data and rental bonds data. Additionally, rental data for the property at 117 Victoria Street and for properties with comparable rental rates over December 1999/January 2000 will be considered. This comparison aims to determine whether the building was functioning as a low-cost rental property prior to January 28, 2000, while considering the data limitations outlined above.

2.3 NEWSPAPER RENTAL LISTINGS FOR POTTS POINT

Key findings:

- A total of 164 unique listings were identified for studio and 1-bedroom dwellings in the Potts Point suburb between December 1999 and January 2000.
- For 1-bedrooms, rental rates from unit listings in the property (\$220/week) in this period (n=3) were the same as the median rental rates of other listings in the Potts Point suburb when filtered to those unfurnished and without an internal laundry (n=55)

For studios, while there were no units listed for the property in this period, the median rental rate of other listings in the Potts Point suburb (n=55) was \$185/week. This is slightly below the estimated Sydney LGA median for a studio (\$194/week) at that time estimated by applying an inferred 2001 Census share.

Rental listings in Potts Point suburb for bedsits/studios and 1-bedroom dwellings were sourced from the Sydney Morning Herald (SMH) archives for December 1999 and January 2000. A total of 84 unique listings for 1-bedroom units and 80 listings for studios were identified, including three 1-bedroom units at 117 Victoria Street (units 26, 27 and 28). Many of the listings were advertised on multiple dates and the

listings have been filtered to identify repeats. The initial advertised date/rent, address (if available) and information on the quality of the listings is provided in Appendix A.

As identified in Issue 51 of the Rent and Sales report, newspaper listings are biased toward the higher end of the market. This is apparent in the quality of the flats/units which were being advertised, of which 45% were identified as being 'near new', 'recently renovated' or 'modern'. Table 2 illustrates the quality characteristics identified in the 1-bedroom rental listings and the associated weekly rent range.

The median rent for a 1-bedroom flat in the Sydney LGA for both the December quarter of 1999 and the March quarter of 2000 (based on new bond lodgements) was \$280/week.¹ Of the 85 1-bedroom units listed in Potts Point, 40% were asking for a weekly rent of \$280 or over, with a median rent for all listings of \$260/week and an average of \$268/week.

117 Victoria Street provided unfurnished units without an internal laundry. There were 55 listings which were unfurnished and did not specifically identify an internal laundry. The median rent for those listings was \$220/week, which was also the asking rent for the three units listed for 117 Victoria Street (units 26, 27 and 28). Even these listings tended to skew towards the higher end of the market, with 23% advertised for a weekly rent of \$280 or more and an average asking rent of \$237/week. The descriptions provided for these listings suggest that factors such as unit size, quality of renovations, and the availability of views were key drivers of the higher asking rents.

Table 2: Quality characteristics of 1-bedroom listings in SMH – December 1999 / January 2000

Rent range	Renovated / modern	Internal laundry	Car spot	Balcony / terrace	Furnished	Pool	Views	Total units
\$150-\$199	0	0	0	0	0	0	0	8
\$200-\$224	5	0	1	0	2	0	2	22
\$225-\$239	2	0	1	0	0	0	0	3
\$240-\$259	5	1	1	0	0	0	1	8
\$260-\$279	5	3	0	4	2	3	1	9
\$280-\$299	6	3	1	4	2	2	2	10
\$300-\$319	3	2	3	5	2	4	5	8
\$320-\$339	4	3	2	3	0	0	1	4
\$340-\$359	6	5	0	5	0	0	0	6
\$360+	3	3	4	3	5	4	2	6
Total	39	20	13	24	13	13	14	84

Source: Newspapers.com (Sydney Morning Herald Archives), Hadron Group analysis

Two of the buildings identified in this filtered list, aside from 117 Victoria Street, had multiple listings. These were 3 Grantham Street and 19 & 19A Tusculum Street (now known as 19-29 Tusculum Street). 3 Grantham Street was built in the 1960s and comprises a mix of studios and 1-bedrooms. Based on a search of real estate listings, the studios are around 29sqm internally and the 1-bedrooms range from 34sqm to 37sqm. 19-29 Tusculum Street, also known as 'Kanimbala Hall', is an art deco building predominantly comprising of 1-bedroom units. Based on the listings founds, the units range from between 35sqm and 42sqm. The 1-bedroom units in the two buildings were listed for between \$180/week and \$230/week.

The Proponent's architect has attempted to estimate the internal floor sizes of the existing units at 117 Victoria Street from the original plans, providing a range for the studios from 13-25sqm for the studios and a maximum of 41sqm for the one-bedroom units. While it is not uncommon to have an inner city studio of

¹ NSW Fair Trading, *Rental bond data*, Sydney LGA for Q4 1999

around 25sqm, one-bedroom flats are generally closer to 50sqm. The current NSW DPHI Apartment Design Guide stipulates a minimum internal floor area of 35sqm for a studio and 50sqm for a one-bedroom.

Of the 80 studio listings identified in the SMH, 22 were either partially or fully furnished and 5 had an internal laundry. As with the 1-bedroom listings, a high percentage (42.5%) of the studio listings were identified as being 'near new', 'recently renovated' or 'modern'. When filtering out those that are furnished or specify that they have an internal laundry, 55 listings remain with a median rate of \$185/week, which is slightly below the estimated Sydney LGA median for a studio (\$195/week – see Section 2.4) at that time estimated by applying an inferred 2001 Census share.

Table 3: Quality characteristics of studio listings in SMH – December 1999 / January 2000

Rent range	Renovated / modern	Internal laundry	Car spot	Balcony / terrace	Furnished	Pool	Views	Total units
\$140-\$159	4	0	0	0	1	0	0	6
\$160-\$179	1	0	0	1	1	0	0	14
\$180-\$199	11	2	4	3	11	1	1	31
\$200-\$219	12	2	2	1	5	2	2	21
\$220-\$249	2	0	0	0	1	1	1	4
\$250-\$299	1	0	1	0	1	0	0	1
\$300+	3	1	2	1	2	1	3	3
Total	34	5	9	6	22	5	7	80

Source: Newspapers.com (Sydney Morning Herald Archives), Hadron Group analysis

2.4 POTTS POINT CENSUS DATA AND ANALYSIS

Key findings:

- Median rents in Potts Point have been lower than Sydney LGA-wide rents over the last 20 years
- In 2001, it's estimated that the median rents for Potts Point studios and 1-bedroom units (at the postcode level) were 91% and 87% of the respective Sydney LGA-wide figures.

The Census provides data on median rents that can be used to determine the market rate of unit rentals for different geographies. Table 4 summarises the Census data on median rental rates for Potts Point suburb, Potts Point postcode and the Sydney LGA². The data is filtered for occupied dwellings, rented by a real estate agent and excludes 'visitor only' and 'other non-classifiable' households. The data is presented in absolute terms (\$/week) and as a % of the Sydney LGA rates.

Table 4: Census data on median rental rates

Year	Median rental rate (\$/week)					Median rental rate (as a % of Sydney LGA)				
	None	1-bed	2-bed	All units	All dwellings	None	1-bed	2-bed	All units	All dwellings
Potts Point suburb										
2001 ¹	183	242	378	254	255	94%	88%	101%	80%	78%
2006	196	264	422	274	277	92%	83%	99%	75%	74%
2011	302	393	615	403	408	97%	89%	100%	78%	78%
2016	367	479	727	512	513	98%	90%	101%	83%	82%
2021	360	479	746	511	506	96%	94%	111%	87%	84%
Potts Point postcode (2011)										
2001 ¹	176	240	372	254	255	91%	87%	100%	80%	78%
2006	204	280	443	296	299	96%	88%	104%	81%	80%
2011	297	406	631	424	425	96%	92%	103%	83%	81%
2016	359	484	740	519	522	96%	91%	103%	85%	83%
2021	358	492	751	514	515	95%	97%	111%	88%	86%
Sydney LGA										
2001 ¹	194	276	374	318	326	100%	100%	100%	100%	100%
2006	212	318	428	364	373	100%	100%	100%	100%	100%
2011	310	443	613	514	527	100%	100%	100%	100%	100%
2016	373	531	720	613	627	100%	100%	100%	100%	100%
2021	376	507	675	586	602	100%	100%	100%	100%	100%

Source: Hadron Group analysis of ABS Census data

Note (1): The 2001 rates by unit type have been estimated using the average proportion of none/1-bed/2-bed/all-unit rates of 'All dwellings' rates from 2006 to 2021 Census data, applied to the 2001 Census 'All dwellings' figure.

The cells in yellow are the focus of this analysis, with both the Potts Point suburb and postcode showing that median rental rates are consistently below the Sydney LGA-wide level. For studios in 2001, Potts Point listings were 98% for the suburb and the postcode compared with the Sydney LGA medians. For one-bedroom units, Potts Point listings were 88% for the suburb and 89% for the postcode compared with the Sydney LGA medians. Over time, this gap for one-bedroom units has somewhat narrowed.

² The Sydney LGA boundaries were significantly altered between the 2001 and 2006 Census. The footnote to the table describes how this has been accounted for in the analysis.

2.5 PROPERTY RENTAL LISTINGS AGAINST BONDS DATA

Key findings:

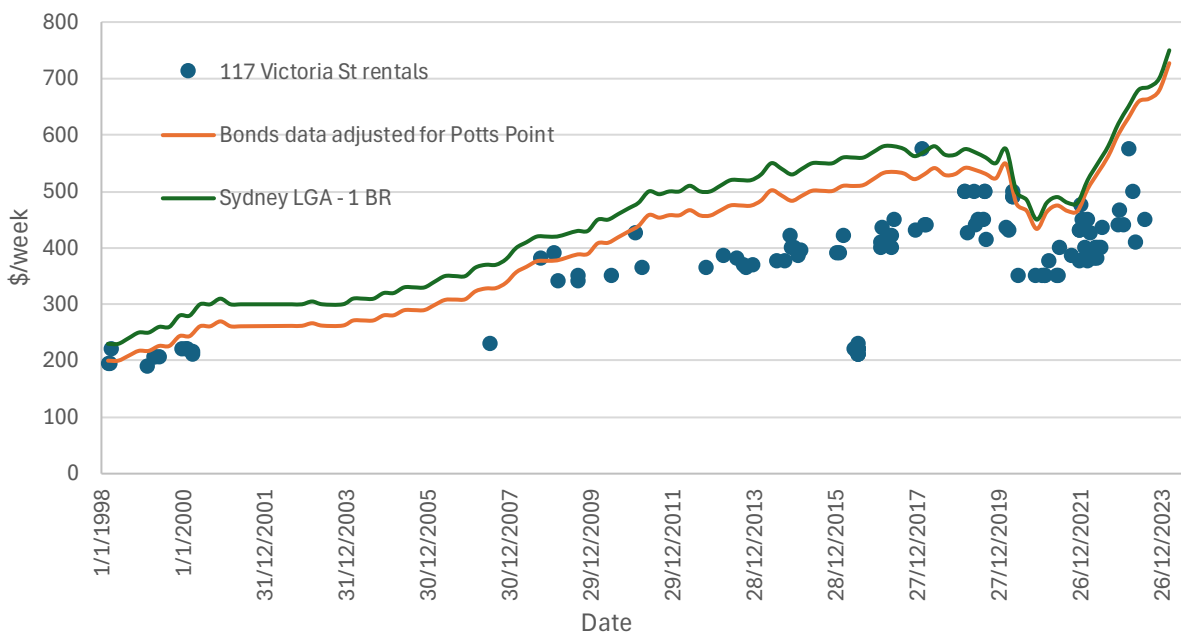
- Based on rental bonds data and the estimated Census 2001 rents, the median price for a 1-bedroom unit listed at 117 Victoria Street between 1998 and 2000 was sufficiently aligned with the estimated Potts Point median rental rates to be considered equivalent
- From 2008 onwards, one-bedroom unit rental rates at 117 Victoria Street grew slower than market rates, leading to some properties being rented at 20-30% below market rates
- Studio rental rates are not available in the bonds data prior to 2017

Rental listings data for the property at 117 Victoria Street have been collated from CoreLogic, real estate websites and newspapers on rental rates between 1998 and 2023. 108 listings for one-bedroom units and 38 listings for studios (totalling 146 unique listings) were collected.

The NSW Government’s rental bond data from NSW Fair Trading can be used as a source of comparison against the advertised rates for the property (see Section 2.2). However, the bonds data is only available for the Sydney LGA, not Potts Point, and is only available for one-bedroom listings. As observed in Section 2.4, in 2001, the median of the Potts Point postcode and suburb one-bedroom unit rates were 87% and 88% of the Sydney LGA-wide for one-bedroom units. Accordingly, the bonds data requires adjusting to provide an estimate of new rental listing rates for the Potts Points suburb.

The rental listing data for one-bedroom units at the property is plotted below against the Sydney LGA benchmark and the adjusted benchmark for Potts Point suburb:

Figure 2 One-bedroom property listings against bonds data



Source: Hadron Group analysis and NSW Fair Trading Rental bonds data

Note: Bonds data for Sydney LGA is adjusted to represent Potts Point using the factors in Table 4, interpolated between years and held constant before 2001 and after 2021.

For the period 1998 to 2000, the rental data for 117 Victoria Street, represented by the blue dots, are close enough to the estimated median bonds data for Potts Point—derived as a fixed share of the median bonds data for Sydney LGA—to be considered equivalent for analysis. This assumption is based on the lack of evidence suggesting that the rent trajectory for units in Potts Point should exactly follow that of the broader Sydney LGA trends.

However, Figure 2 clearly shows that the rents at 117 Victoria Street failed to keep pace with the estimated median bonds data for Potts Points from around 2008 leading to many units eventually being listed at 20-30% below the median.

2.6 PROPERTY RENTAL LISTINGS AGAINST CENSUS DATA

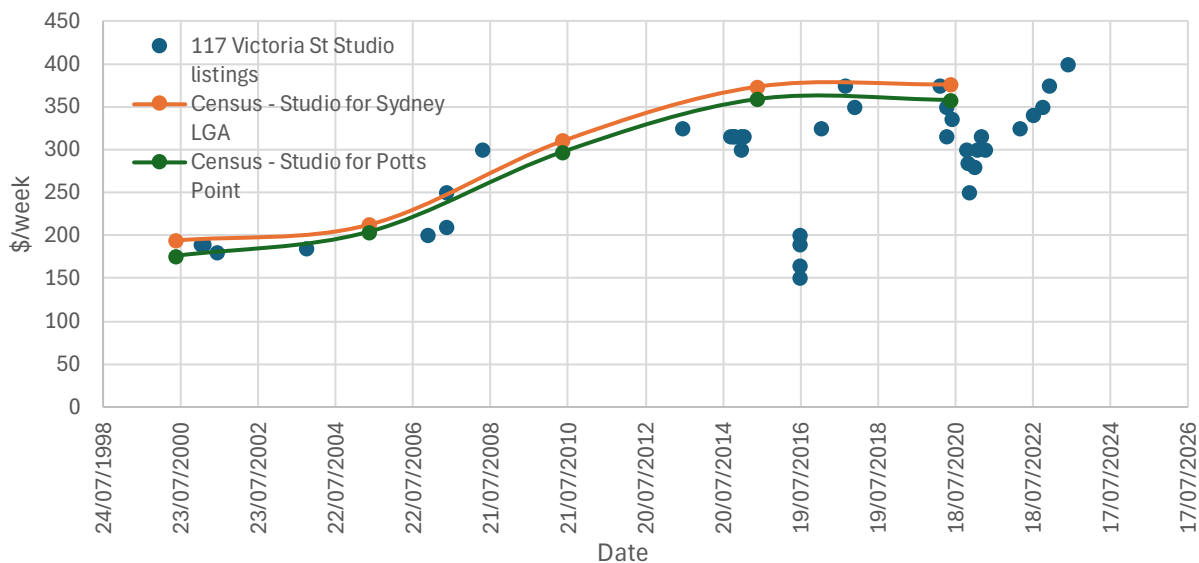
Key findings:

- Based on the Census analysis, the studio units at the property had asking rates which were aligned with the estimated Potts Points median rental rates and those for the Sydney LGA over the first half of the 2000s.
- For one-bedroom units, the asking rates prior to January 28, 2000, were aligned closely enough with the Census data to reasonably suggest they reflected median rent values for Potts Point
- From 2008 onwards, a gap emerges between the typical unit asking rates at the property compared with Potts Point suburb and the Sydney LGA.

The Census provides rental data splits by studios and one-bedroom units specific to the Potts Point suburb. However, it captures all rentals whereas the property rental listings only capture new units coming on to the market. As found in Section 2.2, the Census data at the relevant period has a lag of approximately four quarters compared with the new bond lodgement data. Therefore, to compare the bonds data with the Census data, the Census datapoints are each brought forward by four quarters in the plots below.

The following charts plot the 117 Victoria Street studio and one-bedroom rentals against the respective Census data (adjusted as above) for both the Potts Point suburb and the Sydney LGA:

Figure 3 Studio property listings against adjusted Census data

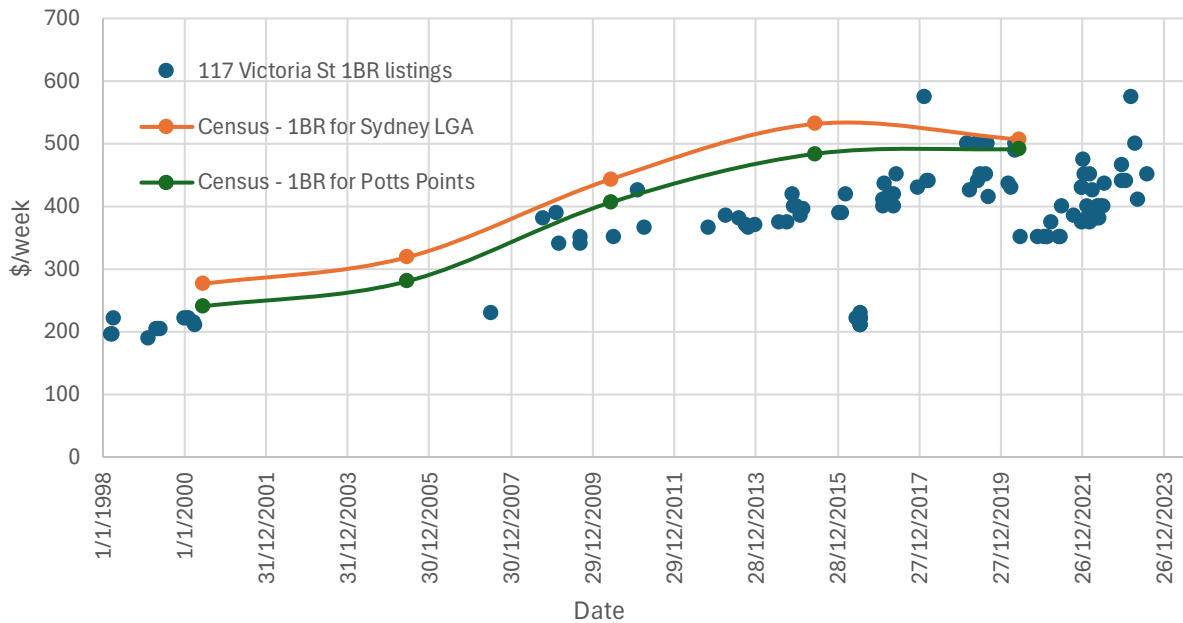


Source: Hadron Group analysis and ABS Census median rental data

Note: Census data is plotted four quarters earlier to account for the lag between new property listings and median rents, as detailed in Section 2.2

Although now listings for the studios at 117 Victoria Street could be found for prior to January 28, 2000, Figure 3 indicates that the rents achieved during the first half of the decade aligned with the median rents for Potts Point, as estimated from the Census data.

Figure 4 One-bedroom property listings against Census data



Source: Hadron Group analysis and ABS Census median rental data

Note: Census data is plotted four quarters earlier to reflect the lag between new property listings and median rents as per Section 2.2.

The one-bedroom listings at 117 Victoria Street from 1998 to 2000 align closely enough with the Census data to reasonably suggest they reflect the median rent values for Potts Point. This alignment is noteworthy considering the methodological constraints involved: the 2001 data point for the Potts Point median is calculated from an average of Census shares from 2006, 2011, and 2016, the trend line has been smoothed using MS Excel, and a four-period lag is presumed between the median for new rents and the Census median. Given these factors, it is feasible that only a slight adjustment to the average used for 2001 would be necessary for the blue dots to align perfectly with the projected median values for the Potts Point suburb.

2.7 COMPARATOR RENTAL LISTINGS AGAINST CENSUS DATA

Another approach to understanding if 117 Victoria Street was a low cost rental prior to 2000 is to consider the performance of the two properties identified in Section 2.3, namely 3 Grantham Street and 19-29 Tusculum Street, which have units listed in December 1999/January 2000 for rents equivalent to those at 117 Victoria Street. The same charts provided in Section 2.6 for 117 Victoria Street are replicated below, where rental listings have similarly been sourced from a mix of CoreLogic, real estate websites and newspapers.

While 117 Victoria Street is in single ownership and always been a rental property, both 3 Grantham Street and 19-29 Tusculum Street are strata properties with a mix of owner-occupiers and renters. There are only 16 units at 3 Grantham Street, but there are 186 units across two properties at 19-29 Tusculum Street.

Figures 5 to 7 illustrate that the units in 3 Grantham Street—both the studios and the one-bedrooms—were aligned with the Potts Point median in December 1999/January 2000 and have remained aligned through to the current day. This suggests that the strata owners have kept up investment in their properties to ensure they remain sought after.

Figure 5 Studio property listings against adjusted Census data – 3 Grantham Street

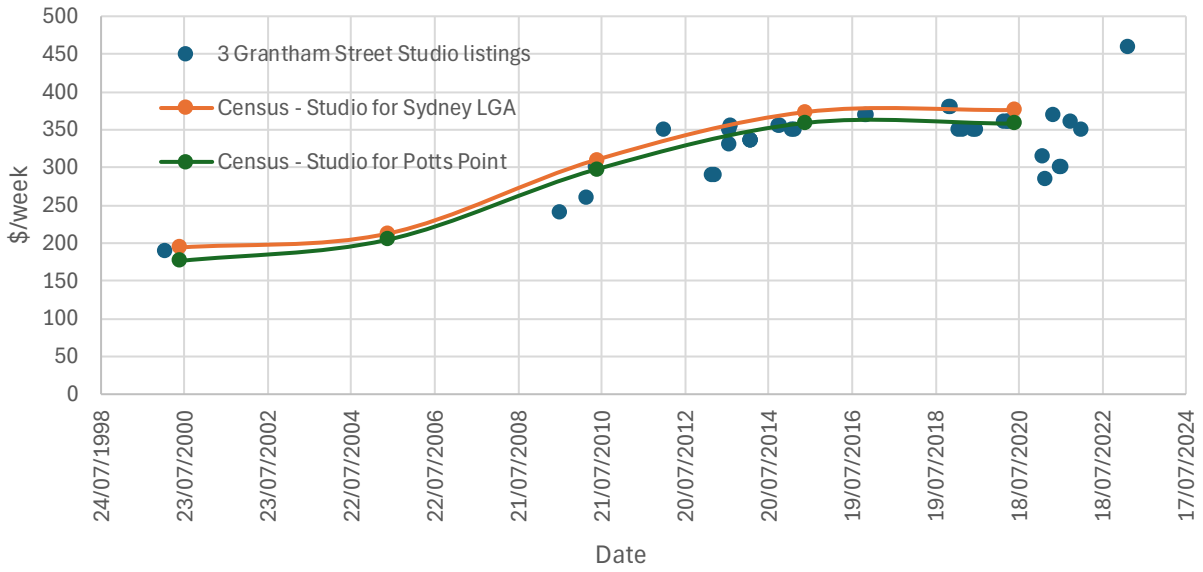


Figure 6 One-bedroom property listings against Census data – 3 Grantham Street

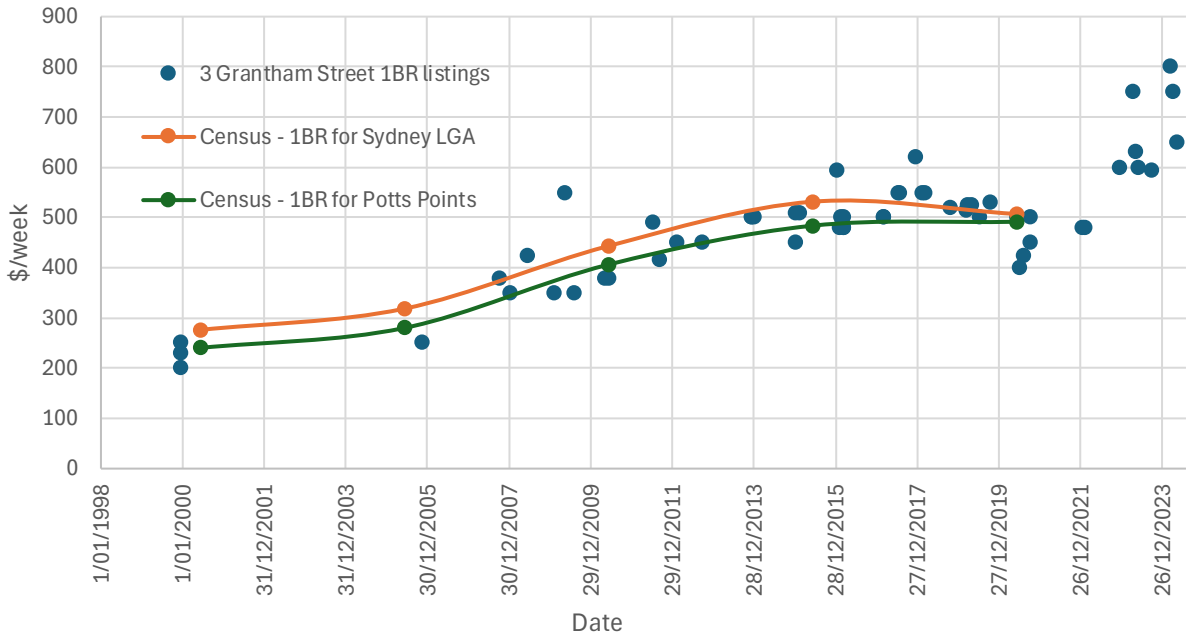
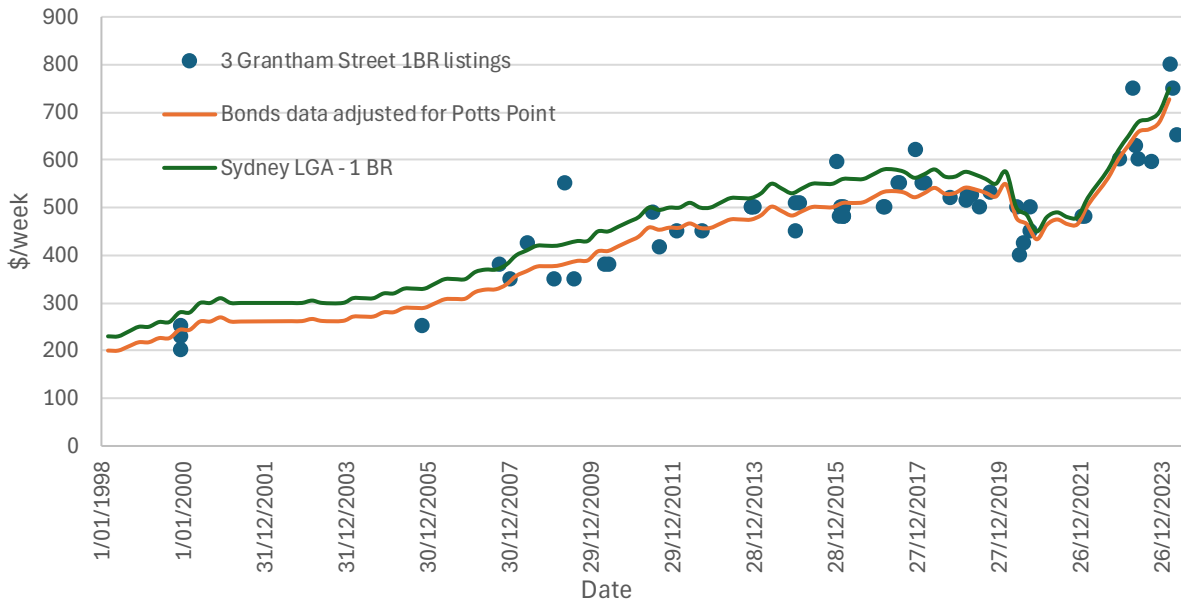


Figure 7 One-bedroom property listings against bonds data – 3 Grantham Street



Figures 8 through 10 show that the growth in the rents for one-bedroom units at 19-29 Tusculum Street have kept pace with growth in the Potts Point median, but there is a significant variation in rents achieved, with rents on average 15% lower than the median. As rents have kept pace with the median rental growth, it's likely that the variation in rents reflects different quality levels based on factors such as the internal floor area, whether the unit has a view and the level of investment by individual strata unit owners.

Figure 8 One-bedroom property listings against Census data – 19-29 Tusculum Street

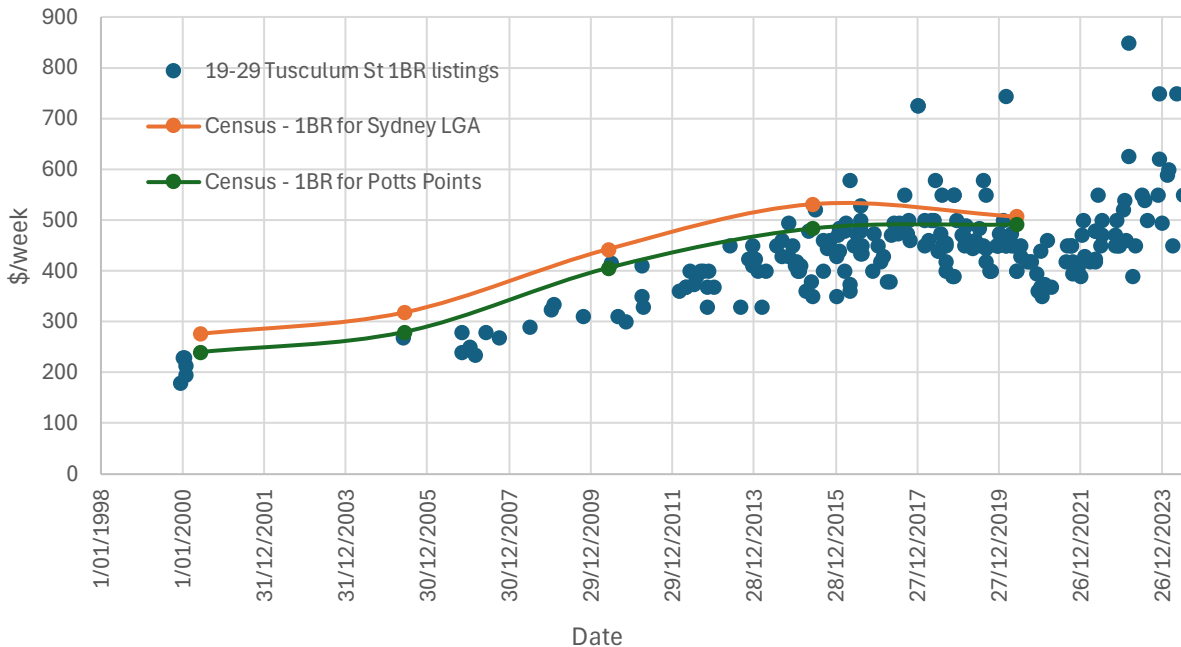
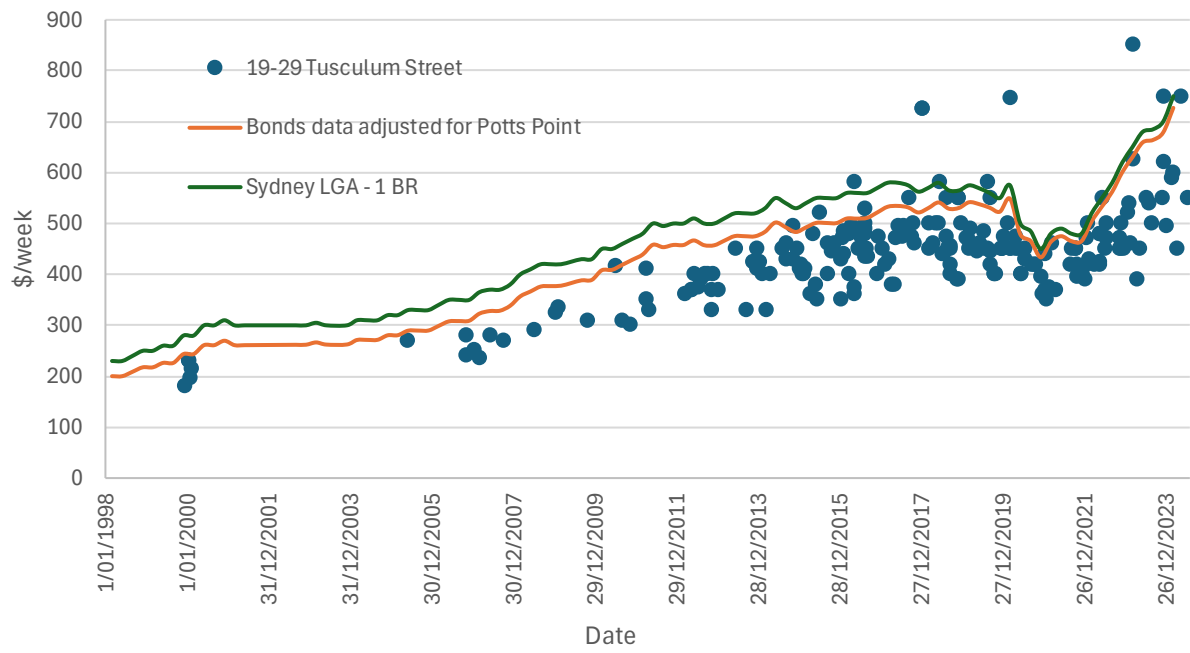


Figure 9 One-bedroom property listings against bonds data – 19-29 Tusculum Street



3 Assessment against the Guidelines

Key findings:

- The development will reduce the supply of affordable rental housing in Potts Point
- The development will lead to a reduction in the number of smaller size units but an increase in the share of larger units
- Potts Point remains one of the most affordable suburbs in the Sydney LGA
- The development is not expected to have significant adverse social impacts because the units are not affordable to households on very low incomes
- Given the high levels of comparatively affordable housing stock in Potts Point, there is an opportunity to regenerate older buildings to diversify the housing supply, particularly by accommodating larger families.

This section of the report provides an assessment for parts a), b), c), e) and g) of Chapter 2, Part 3 Section 47(2) of the Housing SEPP 2021.

3.1 (A) WHETHER THE DEVELOPMENT WILL REDUCE THE AMOUNT OF AFFORDABLE HOUSING IN THE AREA

Table 5 provides the tenure breakdown as at Census 2021 for Potts Point (suburb) and Sydney (LGA) for occupied private dwellings excluding 'Visitor only' and 'Other non-classifiable' households. Both areas share similar tenure profiles. In Potts Point, 33.2% (1,291 dwellings) are owner-occupied and 65.1% (2,534 dwellings) are rented. These rates are similar to the Sydney LGA, where 33.1% (32,408 dwellings) are owner-occupied and 64.1% (62,678 dwellings) are rented.

Table 5 Breakdown of existing tenure details

Area of analysis	Owner occupied	Rental	Other / not stated	Total
Potts Point - Suburb	1,291	2,534	68	3,893
Sydney - LGA	32,408	62,701	2,659	97,768

Source: Hadron Group analysis of 2021 Census - counting dwellings, place of enumeration, TENLLD Tenure and Landlord Type

The proposed development will reduce the amount of affordable rental housing in the area by replacing the existing 45 affordable rental apartments (10 studios, 34 one-bedrooms, 1 two-bedroom) with 20 strata units (4 two-bedrooms, 11 three-bedrooms, 5 four-bedroom) and 5 one-bedroom units provided as affordable housing through a CHP for a period of 15 years.

Based on Table 5, the proportion of flats or apartments in Potts Point suburb which were rented as opposed to owner-occupied as at Census 2021 was 66%. It is therefore estimated that of the 20 units which will be made available to the private market, 13 will be rented and 7 owner occupied. This corresponds to an increase in total owner-occupied dwellings of 0.54% in Potts Point and 0.02% in the Sydney LGA. Conversely, the net decrease of 27 rented dwellings corresponds to a reduction in stock compared to the Census 2021 levels of 1.07% in Potts Point and 0.04% in the Sydney LGA.

Table 6 illustrates the impact of the development on the housing stock as at Census 2021.

Table 6 Breakdown of tenure details post development

Area of analysis	Owner occupied	Rental	Other	Total
Potts Point - Suburb	1,298	2,507	68	3,873
Sydney - LGA	32,415	62,674	2,659	97,748

Source: Hadron Group analysis of 2021 Census - counting dwellings, place of enumeration, TENLLD Tenure and Landlord Type

Table 7 provides a breakdown of beds per rental dwelling in Potts Point as at Census 2021, and then adjusted for the impact of the development. The development would only result in a minor change in the

composition of rented dwellings in the area, increasing the proportion of rented dwellings with 3 or more bedrooms, and decreasing the proportion of rented dwellings with 1 or fewer bedrooms.

Compared to the levels at Census 2021, the number of rental studios will decrease from 455 to an estimated 445, and rental one-bedroom units will decrease from 1,392 to an estimated 1,362. The breakdown is shown in the table below:

Table 7 Breakdown of beds per rental dwelling, Potts Point

Rental dwellings, by no. of beds	Existing	Post-development
Studio	455	445
1 bedroom	1392	1362
2 bedrooms	595	597
3 bedrooms	63	71
4 bedrooms	10	13
5 or more bedrooms	0	0
Not stated or not applicable	19	19
Total	2,534	2,507

Source: Hadron Group analysis of 2021 Census - counting dwellings, place of enumeration, BEDD Number of Bedrooms in Private Dwelling

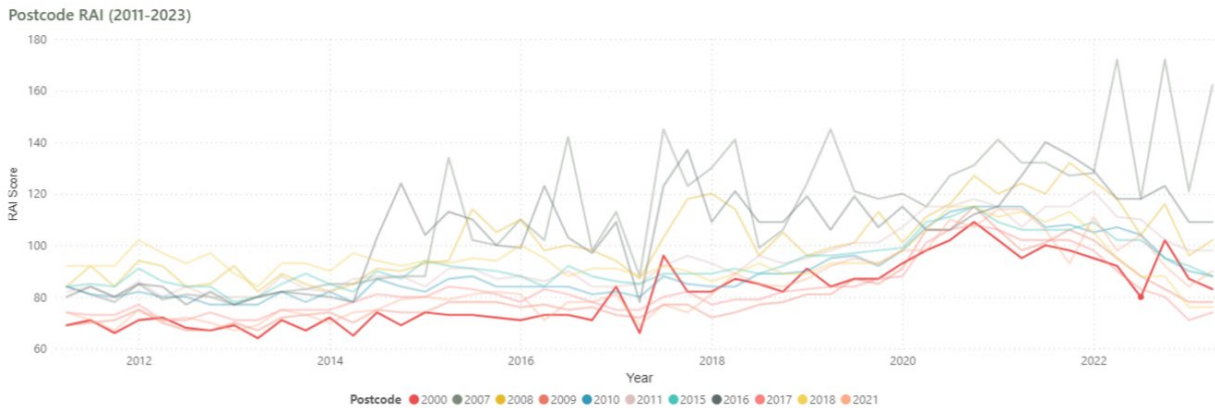
3.2 (B) WHETHER THERE IS AVAILABLE SUFFICIENT COMPARABLE ACCOMMODATION TO SATISFY THE DEMAND FOR THE ACCOMMODATION

The REINSW Vacancy Rate Survey for Sydney for June 2024 was 1.7%. This was an increase on the previous month and vacancy rates for the inner ring of Sydney increased to 2.2%. The Guidelines for Retention of Existing Affordable Rental Housing state no further analysis is required against this assessment criteria if the vacancy rate is below 3%.

However, while housing affordability has been a long running issue in Sydney, the recent deterioration reflects macro-level trends which have impacted on supply. The Local Government Area Housing Toolkit identifies a total of just 2,095 affordable rentals in the Sydney LGA as of June 2023, of which 70.85% were affordable to moderate income households (equivalised household income of between 80% and 120% of the Sydney median), but only 9.46% were affordable to low income households (equivalised household income of less than 50% of the Sydney median).

The Potts Point postcode (2011) remains one of the most affordable areas within the Sydney LGA, alongside Redfern (2016), Chippendale/Darlington (2008), and Broadway/Ultimo (2007). The figure below, taken from the SGS Rental Affordability Dashboard (November 2023), shows the Rental Affordability Index (RAI) for postcodes within the Sydney LGA between 2011 and 2023. The RAI measures the relative affordability of rents. A RAI score of 120 or higher indicates that the median rent in an area is equal to or less than 30% of the median income in Greater Sydney. A lower RAI score signifies that a higher proportion of income is required to cover the median rent, indicating greater unaffordability.

Figure 10 SGS Rental Affordability Index – Sydney LGA postcode comparison



Source: <https://sgsep.com.au/projects/rental-affordability-index>

The analysis of rental affordability and vacancy rates within the Sydney LGA highlights that Potts Point, along with Redfern, Chippendale/Darlington, and Broadway/Ultimo, continues to offer comparatively higher levels of affordable housing. Despite the broader macroeconomic trends that have strained housing supply and affordability across Sydney, these areas have maintained a relative degree of affordability, as evidenced by their Rental Affordability Index (RAI) scores.

With vacancy rates still below the critical 3% threshold, Potts Point remains a stronghold for more affordable rental options within the city. As macroeconomic pressures begin to unwind, it is likely that Potts Point will continue to serve as one of the more accessible areas for moderate-income households, sustaining its status as a comparatively affordable pocket within the Sydney LGA.

Given the high levels of comparatively affordable housing stock in Potts Point, there is an opportunity to regenerate older buildings to diversify the housing supply, particularly by accommodating larger families. This approach would enhance the area’s housing options while maintaining its relative affordability, ensuring a broader range of housing needs is met within the community.

3.3 (C) WHETHER THE DEVELOPMENT IS LIKELY TO RESULT IN ADVERSE SOCIAL AND ECONOMIC EFFECTS ON THE GENERAL COMMUNITY

Table 15 provides an assessment of the potential adverse effects from the loss of low cost rental housing identified in the 2009 Guidelines:

Table 8 Potential adverse effects from the loss of low cost rental housing

Adverse Effects	Assessment
<p>Less housing choice for existing and potential residents contributes to a loss of household diversity (socio-economic, structure, age and ethnicity) and gentrification, increasing the social isolation of remaining low-income residents.</p>	<p>The analysis from Section 3.2 indicates that Potts Point suburb and the rest of Postcode 2011 have a relatively large share of affordable housing compared to most other postcodes within the Sydney LGA and a larger share of studio and 1-bedroom units.</p> <p>Further the existing building is not a boarding house and it is not affordable to households on very low incomes, so the reduction in low cost rental supply will not directly result in a reduction in the share of low-income households in Potts Point suburb.</p> <p>The development will increase housing diversity, via its delivery of 2,3- and 4-bedroom apartments which is expected to attract families. As at Census 2021, only 5% of households in Potts Point suburb were</p>

Adverse Effects	Assessment
	classified as couple with children or lone parent compared to 15% for the broader Sydney LGA.
Increased competition for affordable rental housing can lead to an increase in rents, making housing less affordable for the community generally.	While increased competition for affordable rental housing can lead to a rise in rents, making housing less affordable for the community, it's important to consider the macro-level factors at play. As these pressures start to ease, the area is likely to remain one of the most affordable in Sydney, with a comparatively large supply of smaller affordable rentals. Consequently, the loss of some affordable units is not anticipated to drive a significant increase in rents for smaller units. Moreover, an increased supply of larger units, whether for owner-occupiers or renters, could positively influence affordability for larger households.
Lower income residents may be forced to compromise on their standard of accommodation in order to remain in the area, leading to overcrowding and facilitating the continued provision of substandard or unsafe accommodation.	While concerns about lower-income residents being forced to compromise on their standard of accommodation, potentially leading to overcrowding and substandard living conditions, are valid, it's important to note that the units in question are not affordable to very low income households. The Potts Point suburb and the broader 2011 postcode still offer a comparatively large supply of rentals that are affordable to households with moderate incomes. With sufficient notice of the need to relocate, a significant number of the existing tenants are likely to be able to secure safe housing within the area, minimising the risk of displacement or unsafe living conditions. The Proponent has committed to providing \$1,000 to each tenancy to assist with removalist and/or future rental expenses.
Low-income residents paying more for housing and having less to spend on food and other essentials can have health and safety risks and costs to the general community. The displacement of existing residents who can no longer afford to live in the area causes break down of established social networks, resulting in social dislocation both for displaced residents and the community they are displaced from.	While it's true that low-income residents paying more for housing can lead to reduced spending on essentials, posing health and safety risks, it's important to clarify that the building is not a boarding house and the units are only affordable for moderate-income households. These moderate-income households may include individuals starting out in their careers, essential workers, and those employed in lower-paying industries. There's no evidence to suggest that these individuals are inherently more vulnerable than other households impacted by the deterioration in housing affordability, who may have also faced relocation or had to accept lower standard accommodation. Consequently, the displacement of these households does not necessarily result in a breakdown of social networks or cause significant social dislocation within the community.
Residents moving out of the community can lead to a fall in demand for services and facilities, which may mean that those services are no longer economically viable and cease to be available to all residents of the community.	While residents moving out of the community can potentially reduce demand for services and facilities, threatening their economic viability, it's important to consider that Potts Point and surrounding suburbs still have a relatively large supply of smaller rental units affordable to moderate-income households. Therefore, the loss of these residents is unlikely to significantly impact the demand for services and facilities used by the existing community or compromise their continued commercial viability. Moreover, it's not clear how the demand from new households—likely to have higher incomes and include more families rather than lone-person households or couples without children—would differ from the current residents' demand.
People may become homeless, thereby increasing demand for the limited supply of publicly-funded crisis accommodation and supported accommodation. It may also increase the demand for support and other services provided by the council and other levels of government.	While concerns about increased homelessness leading to higher demand for limited publicly-funded crisis accommodation and support services are valid, it's important to note that these households are not on low or very low incomes. The housing crisis has indeed contributed to a rise in homelessness due to increased rental competition, but there is no indication that these particular households are vulnerable to the extent that they wouldn't be able to secure alternative accommodation. Even if this means accepting a lower standard of housing or relocating to a

Adverse Effects	Assessment
	different area, these households are more likely to adapt without necessarily increasing demand for crisis services.

Source: Hadron Group Analysis of Affordable Rental Housing SEPP, Social and economic effects on the general community: clause 50(2)(c)

3.4 (E) THE EXTENT TO WHICH THE DEVELOPMENT WILL CONTRIBUTE TO A CUMULATIVE LOSS OF AFFORDABLE HOUSING IN THE LOCAL GOVERNMENT AREA

There is no explicit data available on the potential growth of affordable housing provision in the Sydney LGA. However, the City of Sydney’s Local Housing Strategy 2020 establishes a target of 7.5% by 2036.

Across most parts of the state, there has been an acute and sharp increase in rents and unusual macro-economic conditions since the 2021 Census. The figure below highlights this sharp increase in both housing and renting expenditure indices for Sydney, which had been relatively stable from 2018 to 2021:

Figure 11 Growth in housing and rental indices (Mar-2018 base month), Sydney



Source: Hadron Group Analysis of 6401.0 Consumer Price Index, Australia and TABLE 9. CPI: Group, Sub-group and Expenditure Class, Index Numbers by Capital City, Housing and Rent Indices

Further analysis by ABS³ indicates that across Australia and Sydney, there is a tightening rental market since late 2021, with declining vacancy rates and increase advertised rents, with key reasons including:

- COVID-19 pandemic led to a desire for more space and living with fewer people.
- Return of international migration and international students has added to rental property demand in major cities.

As a result of these macroeconomic factors, a much larger proportion of people not only in the area of scope but across Sydney are facing rental stress. However, looking into the longer term, however, looking

³ Australian Bureau of Statistics (2023), New insights into the rental market <https://www.abs.gov.au/statistics/detailed-methodology-information/information-papers/new-insights-rental-market#conclusion> Accessed 7th of August, 2024.

into the long term, NSW Treasury forecasts indicate that the Consumer Price Index (CPI) for Sydney will decrease over the coming years, with the Sydney CPI to decrease from 7.1% in 2022-23 to between 3% and 3.25% in 2024-25, and further to 2.5% in 2027-28.

3.5 (G) WHETHER THE IMPOSITION OF AN AFFORDABLE HOUSING CONDITION REQUIRING THE PAYMENT OF A MONETARY CONTRIBUTION WOULD ADEQUATELY MITIGATE THE REDUCTION OF AFFORDABLE HOUSING RESULTING FROM THE DEVELOPMENT

The monetary contribution required under Section 48 of the SEPP (Housing) to offset the loss of the low cost rental housing at 117 Victoria Street, Potts Point is calculated as 5% of the product of the number of lost low-rental bedrooms and the average of the first quartile of sales of strata properties in the Sydney LGA, as specified in the 4 most recent editions of the Rent and Sales Report. As the DA was lodged on 1 July 2024, the relevant four quarters and their corresponding first quartiles of strata sales are given as:

- December Quarter 2023: \$734,000
- September Quarter 2023: \$755,000
- June Quarter 2023: \$750,000
- March Quarter 2023: \$730,000

The average of these is \$742,250. The existing building has 46 low cost rental bedrooms and the proposed development will have only 5 low cost rental bedrooms. Therefore, there will be a loss of 41 bedrooms requiring a contribution of \$1,521,613.

Given the current constraints on development feasibility, the monetary contribution specified under the SEPP is unlikely to sufficiently mitigate the loss of affordable rental housing within the Sydney LGA. However, the development's provision of medium-density flats for families will contribute to accommodating the LGA's growing population in a more sustainable and balanced way.

4 APPENDIX – NEWSPAPER LISTINGS

Table 9 Sydney Morning Herald 1-bedroom rental listings for December 1999 and January 2000

First date advertised	Weekly rent	Address (if available)	Renovated / modern	Internal /shared laundry (Y/N)	Car spot	Balcony / terrace	Furnished	Pool	Views	Other comments
4/12/1999	\$210									Freshly painted, modern kitchen, with lift
11/12/1999	\$280					Y				Separate lounge, enclosed verandah
4/12/1999	\$340	7/246 William St	Y	Y		Y				Near new, dishwasher, air conditioning, granite kitchen, rooftop
14/12/1999	\$290		Y							Huge, new bathroom, modern kitchen rooftop access
15/12/1999	\$310				Y	Y	Y			
11/12/1999	\$200		Y							
29/12/1999	\$210	1 Tusculum St								
1/12/1999	\$210								Y	Bright, good condition, harbour/bridge views
11/12/1999	\$230	1/3 Grantham St	Y		Y					Modern kitchen/bathroom, storage space
11/12/1999	\$250	4/3 Grantham St	Y		Y					
17/12/1999	\$260		Y	Y		Y		Y		Large, modern kitchen/bathroom
4/12/1999	\$290		Y							Large, modern bathroom, good condition
4/12/1999	\$345		Y							Ultra-modern, fully refurbished, new kitchen/bathroom
18/12/1999	\$170									Older style
18/12/1999	\$220	26/117 Victoria St		N						
18/12/1999	\$290			Y		Y	Y	Y		Sauna
18/12/1999	\$260					Y				
18/12/1999	\$380		Y	Y		Y				Near new, loft style, dishwasher, rooftop and huge balcony
18/12/1999	\$325		Y	Y	Y	Y				
18/12/1999	\$300	53/12 Wyde St	Y	Y		Y			Y	Refurbished building, new gourmet kitchen
11/12/1999	\$180	53/19a Tusculum St		N						Older style
11/12/1999	\$220									
11/12/1999	\$320	Unit 10 & 14/246 William St	Y	Y		Y				Near new, top quality, air conditioning, stainless steel kitchen, large balcony
11/12/1999	\$175	3/3 Ward Ave								Spacious
11/12/1999	\$275		Y						Y	Older style, renovated, freshly painted, fantastic harbour views
11/12/1999	\$185									Large

First date advertised	Weekly rent	Address (if available)	Renovated / modern	Internal /shared laundry (Y/N)	Car spot	Balcony / terrace	Furnished	Pool	Views	Other comments
4/12/1999	\$215		Y	N			Y			Modern kitchen/bathroom
4/12/1999	\$240	401/40 Macleay St	Y						Y	Near new, harbour views
4/12/1999	\$220	20/3 Springfield Ave		N						Art deco, spacious
4/12/1999	\$260						Y			
4/12/1999	\$210									Bright and airy
4/12/1999	\$200	9/3 Grantham St	Y		Y					Modern
4/12/1999	\$255	16/3 McDonald	Y	Y						Ultra-modern
4/12/1999	\$340	21/244 William St	Y	Y		Y				Stunning, modern bathroom with dishwasher, private rooftop area
4/12/1999	\$295		Y					Y		Renovated kitchen/bathroom, glorious harbour views
4/12/1999	\$280		Y							Separate lounge/dining, large, modern kitchen/bathroom
4/12/1999	\$270	207/2 Springfield Ave	Y	Y				Y		separate lounge/dining, large, modern kitchen/bathroom
4/12/1999	\$320	205/115 Macleay St	Y							Art deco, renovated, modern kitchen with dishwasher
8/1/2000	\$430	172 McElhone St			Y		Y			Two-storey, fully furnished and equipped
15/1/2000	\$300	6/10 Hughes St	Y	Y		Y				Immaculate
22/1/2000	\$360	105/40 Macleay St	Y	Y	Y	Y	Y	Y		Private courtyard
8/1/2000	\$210									Top floor
22/1/2000	\$280	11/3 Springfield Ave	Y							Totally refurbished, large lounge/dining
26/1/2000	\$300	15/8 Wylde			Y	Y			Y	Harbour and city views
15/1/2000	\$550	203/145 Victoria St	Y		Y		Y	Y	Y	Perfect views over Sydney harbour, electricity included
22/1/2000	\$340	18/246 William St	Y	Y		Y				Near new. Large balcony and rooftop
8/1/2000	\$230	132/19 Tusculum St								Bright and spacious
5/1/2000	\$310				Y	Y	Y	Y	Y	Fantastic city and bridge views
22/1/2000	\$195	4/19A Tusculum St		N						Large, older style rooftop views
5/1/2000	\$260		Y	Y		Y	Y			
15/1/2000	\$300	32/103 Victoria St						Y	Y	Lounge/dining room, superb views
15/1/2000	\$450	1 McDonald St					Y	Y		
15/1/2000	\$230	162/19 Tusculum St	Y							Art deco, spectacular views, rooftop garden
15/1/2000	\$205						Y			Spa bath, roof deck
15/1/2000	\$190	6/2 Tusculum St								Older style, fresh paint and carpet

First date advertised	Weekly rent	Address (if available)	Renovated / modern	Internal /shared laundry (Y/N)	Car spot	Balcony / terrace	Furnished	Pool	Views	Other comments
15/1/2000	\$250									Large, art deco
15/1/2000	\$250	18/10 Challis Ave								Large bedroom, art deco style, modern kitchen, good bathroom
22/1/2000	\$220	27/117 Victoria St		N						Bright and sunny, good condition
22/1/2000	\$260					Y				Verandah
22/1/2000	\$250	8/20 Springfield Ave	Y							Renovated art deco, excellent condition
22/1/2000	\$550			Y	Y	Y	Y	Y	Y	Harbour views, pool, spa, sauna
22/1/2000	\$210		Y							Older style, new kitchen
22/1/2000	\$270	30/3 Ward Ave	Y				Y			Art deco, large, fully furnished, water included
22/1/2000	\$340	2/246 William St	Y	Y		Y				Near new, large balcony, air conditioning, granite/steel kitchen
22/1/2000	\$220	7/3 Oak Lane	Y							Older style
29/1/2000	\$290								Y	Older style art deco, good kitchen/bathroom, harbour views
29/1/2000	\$300	15/46 Kellet St	Y							Beautifully renovated, new kitchen
29/1/2000	\$260									Nicely presented, rooftop
8/1/2000	\$220	35/4 Ward Ave		N						Older style
8/1/2000	\$280	4/77 Bayswater Rd	Y	Y	Y	Y				Private rooftop garden and balcony, very big
8/1/2000	\$250		Y							Art deco, spacious, modern
8/1/2000	\$325	6G/6 McLeay St	Y	Y	Y	Y			Y	Harbour views
8/1/2000	\$190	6/2 Tusculum St								Older style
8/1/2000	\$220									Older style
8/1/2000	\$240	9/2B Tusculum St								Freshly painted, new polished floors
8/1/2000	\$280			Y		Y	Y	Y		Fully furnished
8/1/2000	\$350		Y	Y		Y				New, modern loft
8/1/2000	\$220									
29/1/2000	\$215	73/19A Tusculum St		N						Rooftop
29/1/2000	\$220	28/117 Victoria St	N	N						Bright and sunny, good condition
29/1/2000	\$215									
29/1/2000	\$210								Y	Harbour glimpses, good condition
12/1/2000	\$300							Y	Y	
5/1/2000	\$155	11/42 Bayswater Rd								

Source: Newspapers.com (Sydney Morning Herald Archives)

Table 10 Sydney Morning Herald studio/bedsitter rental listings for December 1999 and January 2000

First date advertised	Weekly rent	Address	Renovated / modern	Internal /shared laundry (Y/N)	Car spot	Balcony / terrace	Furnished	Pool	Views	Other comments
8/12/1999	\$200		Y	Y						Clean, bright renovated studio
11/12/1999	\$200	18/15 Wyde St			Y					Well maintained kitchen and bathroom
4/12/1999	\$205	24/1 MacDonald St	Y				Y			Partly furnished, large modern apartment, leafy outlook
4/12/1999	\$195	5 Tusculum St	Y		Y					Multiple studios, 'magnificent', new separate kitchen, separate bathroom
4/12/1999	\$350	65/45 Macleay St	Y	N	Y		Y		Y	'Exec style', fantastic harbour views
8/12/1999	\$200		Y	Y						Clean, bright renovated studio
15/12/1999	\$175									Spacious, good size kitchen and full bathroom
8/12/1999	\$175									Spacious
1/12/1999	\$180						Y			Large, modern kitchen
17/12/1999	\$150		Y							Large studio, modern kitchen/bathroom
11/12/1999	\$170									Studio apartment. Unfurnished
18/12/1999	\$210	45/45 Macleay St		N					Y	Well presented
18/12/1999	\$210		Y				Y			Modern, unfurnished
18/12/1999	\$160									Unfurnished, alcove
18/12/1999	\$170									Clean and tidy, separate bathroom/kitchen
18/12/1999	\$170									Art deco
18/12/1999	\$140		Y							1930s, modern kitchen/bathroom, good size
18/12/1999	\$210		Y				Y			Immaculate, partly furnished, full size kitchen and bathroom
15/12/1999	\$150									Cosy, older style
11/12/1999	\$220		Y							Brand new kitchen, freshly painted, smeg appliances
11/12/1999	\$190	505/145 Victoria St			Y					Older style
11/12/1999	\$170	14/4 MacDonald St								Freshly painted, new carpet
11/12/1999	\$225			N			Y			Fully furnished, 3rd floor
8/12/1999	\$200									Spacious, self contained
1/12/1999	\$185						Y			Furnished, 3rd floor, suit couple
4/12/1999	\$150	12/35 Roslyn St	Y							Renovated studio
4/12/1999	\$185	606/40 Macleay St	Y							Modern, executive
4/12/1999	\$190	11/167 Victoria St	Y							Huge, renovated studio
4/12/1999	\$185		Y			Y				Recently refurbished, new paint, carpet and kitchen

First date advertised	Weekly rent	Address	Renovated / modern	Internal /shared laundry (Y/N)	Car spot	Balcony / terrace	Furnished	Pool	Views	Other comments
15/1/2000	\$185		Y							New kitchen, private entry, 2 private courtyards
15/1/2000	\$180									Extra large, good condition, roof deck
22/1/2000	\$200	3 Crick Ave	Y				Y			Big studio, modern kitchen/bathroom
22/1/2000	\$190	3/13-17 Hughes St		Y			Y			
7/1/2000	\$185			N			Y			Furnished, suit couple
15/1/2000	\$190	2/3 Grantham St	Y	N						Spacious, modern, separate kitchen
22/1/2000	\$230	7B/51 Bayswater Rd							Y	City and harbour views
5/1/2000	\$250		Y		Y		Y			
1/1/2000	\$200				Y					Sunny, well maintained kitchen/bathroom
22/1/2000	\$190						Y			Partly furnished, fresh paint, new carpet
8/1/2000	\$195	304/40 Macleay St	Y	N						Near new interior
8/1/2000	\$200	45/45 Macleay St		N					Y	Well presented, views, parking available
22/1/2000	\$170					Y				Art deco, good kitchen/bathroom
15/1/2000	\$160	17/10A Challis Ave								New kitchen, large studio
15/1/2000	\$200		Y							
15/1/2000	\$180									Large studio, full bathroom, separate kitchen
15/1/2000	\$195	12/5 Tusculum St			Y					Magnificent bachelor apartment
15/1/2000	\$195									
15/1/2000	\$190	Hughes St		Y			Y			Rooftop terrace
15/1/2000	\$180									Clean and tidy
15/1/2000	\$210									Spacious, light and bright
22/1/2000	\$400	706/145 Victoria St	Y		Y		Y		Y	Stunning views, includes electricity
22/1/2000	\$210		Y							Refurbished studio, secluded, modern
22/1/2000	\$190	2/36b Macleay St					Y		Y	Neat and tidy. Views of Rushcutters Bay
22/1/2000	\$195	1 McDonald St	Y							'As new', overlooking trees
22/1/2000	\$170									Ground floor, clean
22/1/2000	\$210		Y							Renovated kitchen
22/1/2000	\$190		Y							Renovated, modern, good condition
22/1/2000	\$205		Y							City and harbour views, modern kitchen with microwave and fridge
22/1/2000	\$170						Y			Fully furnished, separate kitchen/bathroom
29/1/2000	\$180	165/40 Bayswater Rd			Y		Y			

First date advertised	Weekly rent	Address	Renovated / modern	Internal /shared laundry (Y/N)	Car spot	Balcony / terrace	Furnished	Pool	Views	Other comments
29/1/2000	\$200									Quiet location
29/1/2000	\$185	34/101 Macleay St	Y							
29/1/2000	\$180	44/117 Macleay St								Art deco, good condition
29/1/2000	\$160		Y							Small, newly renovated
8/1/2000	\$185		Y			Y				Renovated, new kitchen, private courtyard
8/1/2000	\$145			N			Y			Partly furnished
8/1/2000	\$170									Light and bright, with alcove
8/1/2000	\$200						Y			Partly furnished, compact
8/1/2000	\$185	306/28 Macleay St		N			Y	Y		Modern fully furnished
8/1/2000	\$210		Y							Refurbished studio
8/1/2000	\$140		Y							Modern studio kitchenette, microwave, air con
29/1/2000	\$165	7/3 Greenknowe Ave		N						Neat and tidy
29/1/2000	\$230		Y							Bright and spacious
29/1/2000	\$210	67 Macleay St	Y			Y	Y			New, partly furnished, rooftop
29/1/2000	\$185						Y			
29/1/2000	\$190					Y				Private courtyard
29/1/2000	\$200									Large, partitioned, top floor
29/1/2000	\$195									Studio in central location
5/1/2000	\$185			N			Y			
1/1/2000	\$300		Y	Y		Y			Y	Newly renovated, in refurbished building, harbour glimpses

Source: Newspapers.com (Sydney Morning Herald Archives)

HADRON GROUP

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12 August 2024

General Manager
City of Sydney Council
GPO Box 1591,
SYDNEY NSW 2001

Attention: Julia Errington

RE: 117 Victoria Street, Potts Point

Dear Julia,

In accordance with Clause 47(2)(d) of the Housing SEPP, ERD1 Pty Ltd are committed to assisting displaced residents find alternative accommodation when the redevelopment of 117 Victoria Street, Potts Point occurs. ERD1 Pty Ltd will provide \$1,000 as an *ex-gratia* disruption payment to each of the tenancies.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read "Edward Doueih", is written over a light blue circular stamp.

Edward Doueih
Director



BCA Audit Report

117 Victoria Street Potts Point

Regulatory Compliance Report

BCA Assessment

Prepared for: Ceerose

Date: 26 July 2024

Revision: 1.0

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Date	Rev No	No. of Pages	Issue or Description of Amendment	Assessed By	Approved By	Date Approved
19.07.24	1.0	33	Draft – Stakeholder Review	Kurtis Lamaro	Vijay Perumal	26.07.24
29.07.24	1.0	33	Final	Kurtis Lamaro	Vijay Perumal	29.07.24

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1. EXECUTIVE SUMMARY

The existing building located at 117 Victoria Street Potts Point is a 1960's residential flat building. This report is based on a site audit conducting by Certatude to assess the existing building for compliance.

Summary of Compliance

As relevant building surveyors we have conducted a site inspection of the premises on the 16th July 2024 and have reviewed the existing architectural design documents prepared by Henry Haber A.R.A.I.A (refer appendix A) for compliance with the building assessment provisions currently outlined in BCA 2022.

This report has been prepared to assess the existing building against the Building Code of Australia and detail any required upgrades to the building.

Deviations from the Deemed-to-Satisfy Provisions

The onsite inspection and assessment of the existing design documentation have revealed that the following areas deviate from the deemed-to-satisfy provisions of the BCA. These items are to be addressed to ensure compliance is achieved, either through on-site construction amendment (via a Development Application and/or Complying Development Certificate) to achieve compliance with the deemed-to-satisfy provisions, or through a performance solution demonstrating compliance with the Performance Requirements of the BCA:

No.	Description	Relevant DTS Clauses	Performance Requirements
Fire Safety Items			
1	<p>Number of exits</p> <p>As the building exceeds 25m in effective height, all portions of the building are required to be provided with two exits.</p> <p><i>Levels C, D, E & Roof</i></p> <ul style="list-style-type: none"> Only one exit has been provided in lieu of two. 	D2D3	D1P4, E2P2
2	<p>Extended travel distances</p> <p><i>Roof Level</i></p> <ul style="list-style-type: none"> 32m to a single exit in lieu of 20m (excessive). 	D2D5	D1P4, E2P2
3	<p>Dimensions of exits and paths of travel to exits</p> <p>There are currently multiple paths of travel across the building that have reduced widths of less than 1000mm. Please refer to attached markups.</p>	D2D8	D1P4, D1P6, E2P2
4	<p>Travel via fire isolated exits</p> <p><i>Level B & F</i></p> <ul style="list-style-type: none"> Discharge from fire isolated exits will necessitate passing within 6m to the external wall and associated openings. <p><i>Roof Plan</i></p> <ul style="list-style-type: none"> Lift motor room opens directly into the fire isolated stairway. 	D2D12	D1P4, D1P5, E2P2

No.	Description	Relevant DTS Clauses	Performance Requirements
5	<p>Separation of rising and descending stairs The eastern fire stairway currently serves the upper levels and a level lower than a level having access to a road and therefore having a rising and descending stairs departure.</p>	D3D5	D1P4, D1P5, E2P2
6	<p>Swinging Doors <i>Level B</i></p> <ul style="list-style-type: none"> ▪ Gates providing egress to the road currently do not swing in the direction of egress. <p>Where they are not upgraded to swing in the direction of egress, this is to be addressed through a performance solution.</p>	D3D25	D1P2, D1P4, E2P2
7	<p>Spandrel Separation As the building has not been sprinkler protected in accordance AS 2118 Part 1 or Part 4 system. Spandrel separation is required to be provided in accordance with this Clause.</p> <p>For the purposes of C3D7, window or other opening means that part of the external wall of a building that does not have an FRL of 60/60/60 or greater (two-way fire rating).</p> <p>Spandrels are required in accordance with BCA Clause C3D7, which stipulates a 900mm high spandrel; with 600mm of this spandrel being above the finished floor level. Alternatively, an 1100mm horizontal slab may be utilized. The spandrel material is required to be non-combustible and to achieve an FRL of 60/60/60.</p> <p>Where this has not been provided, will need to be captured as a Fire Engineered Solution</p>	C3D7	C1P1, C1P2, C1P8
8	<p>Height of exits, paths of travel to exits and doorways / Widths of doorways <i>Level F</i></p> <ul style="list-style-type: none"> ▪ Due to the location of the existing services, the height in portions of the carpark area is reduced to 1970mm in lieu of 2100mm. ▪ Height in the fire isolated stairway is reduced to 1930mm in lieu of the required 2000mm. <p><i>Switch room</i></p> <ul style="list-style-type: none"> ▪ The doorway into the switchroom is currently reduced to 650mm in lieu of 750mm. 	D2D7, D2D9	D1P4, D1P6, E2P2
9	<p>Going and Risers <i>Level B & F</i></p>	D3D14	D1P2, D1P4

No.	Description	Relevant DTS Clauses	Performance Requirements
	<ul style="list-style-type: none"> There is currently a single step provided at the discharge point of the fire isolated stairs on level B. Clause D3D14 does not permit the provision of a single step. There is currently a single step from the residential area to the carpark level. 		
10	<p>Separation of external walls and associated openings in different fire compartments</p> <p><i>Level F</i></p> <ul style="list-style-type: none"> Openings in the class 2 and class 7a portions are located within 6m. <p>Where protection is not provided in accordance with C4D5, a performance solution is provided.</p>	C4D4, C4D5	C1P2, C1P8
11	<p>Openings in fire-isolated exits</p> <p>Fire stairs serving the residential levels are currently provided with openings to the northern boundary. These windows are currently located within 6m to windows and other openings in the same building.</p> <p>Where protection is not afforded with C4D5, this will need to be addressed through a performance solution.</p>	C4D9	C1P2, C1P8, D1P4
12	<p>Hydrant Booster Location</p> <p>Multiple departures with this booster location:</p> <ul style="list-style-type: none"> As the building has multiple entrances, the booster will not be located within sight of the main entrance. Booster is currently located perpendicular to the street and access to the booster is not a level surface (i.e accessed via steep driveway) 	E1D3, AS2419	E1P3, E1P4
Miscellaneous Items			
13	<p>Weatherproofing of External Walls</p> <p>As the external walls are proposed to be constructed of a material not nominated in F3D5, a performance solution is to be provided by the façade engineer/registered architect demonstrating that the external walls comply with the requirements of Performance Requirement F3P1 (previously FP1.4).</p>	F3D5	F3P1 (previously FP1.4).

The feasibility and any additional requirements that will apply as a result of performance solution/s will need to be confirmed by the professional preparing the performance solution/s. Any performance solution/s will need to be prepared by a suitably qualified/accredited professional.

Any fire engineered solutions will need to be approved after consultation with the NSW Fire Brigade as part of the Construction Certificate process via a Section 26 and 27 submission

2. REQUIRED UPGRADE WORKS

In some instances a building or part of a building may be required to be brought into total or partial conformity with the BCA. Below is a summary of the key triggers where this may occur:

- Section 19 of the Environmental Planning and Assessment (Development Certification & Fire Safety) Regulations 2021
- Section 64 of the Environmental Planning and Assessment Regulations 2021

Compliance with Development Consent and Building Code of Australia – Section 19

- The new works must comply with the current provisions of the BCA and this can be achieved by DTS or performance means,
- Where works can be completed in isolation to the current code the remainder of the building would not need to be upgraded,
- In cases where a system cannot be upgraded in isolation or be addressed via a performance solution, the element would need to be upgraded. The extent of the upgrade would be dependent on the specific measure,

Consent Authority may Require Upgrade of Buildings – Section 64

- As part of the Development Application process the Consent Authority may choose to impose an upgrade Condition of Consent which requires the building or part to be brought into total or partial conformity with the BCA,
- This may apply to existing buildings which:
 - A. involves an application for rebuilding or alterations,
 - B. the measures contained in the building are inadequate to (protect persons using the building, facilities safe egress, restrict the spread of fire).

These items are to be addressed to ensure compliance is achieved, either through design amendment to achieve compliance with the deemed-to-satisfy provisions, or through a performance solution demonstrating compliance with the Performance Requirements of the BCA.

In order to bring the building into compliance with BCA 2022, the below items must be upgraded as part of the required upgrade works:

No.	Description	Relevant DTS Clauses	Performance Requirements
Fire Safety Items			
1	Structural Adequacy Refer to structural engineering report prepared by M+G Consulting for structural observations and recommendations.	B1	B1P1
2	Fire Resistance The building is to be upgraded to achieve the required fire rating levels in accordance with Type A construction and the relevant classifications in specification 5.	Part C	Multiple
3	Bounding Construction The walls and doorways into the laundry rooms on the residential levels have not been provided with a fire rating as required for bounding construction. Doorways are to be upgraded to achieve a fire rating of -/60/30 and be self closing. A performance solution will be required to address the FRL of the walls bounding the public corridor from the laundries.	C4D12	C1P2, C1P8

No.	Description	Relevant DTS Clauses	Performance Requirements
4	<p>Fire hazard properties</p> <p>All Internal floor wall and ceilings linings are to be upgraded to comply with specification C2D11.</p>	C2D11	C1P2, C1P4
5	<p>Openings for service penetrations</p> <p>All existing services proposed to remain within the building that currently penetrate any fire rated elements within the building, is required to be upgraded to a system complying with C4D13, C4D15 of the BCA. It is recommended that a fire stopping specialist be engaged, to confirm design parameters prior to proceeding.</p>	C4D13, C4D15	C1P2, C1P8
6	<p>Discharge from exits</p> <p>There are currently multiple paths of travel from exit discharge points to the road that are blocked with locked gates. An unrestricted path of travel is to be provided from all exits to the road.</p>	D2D15	E1P3, E1P4
7	<p>Fire-isolated stairways and ramps</p> <p>There are currently multiple combustible materials located in the fire isolated stairways (floor linings, nosings, handrails and attachments) due to the stairways currently being used as circulation stairs.</p>	D3D3	D1P5, C1P2, C1P4
8	<p>Stairs / Landings / Thresholds / Balustrades/ Handrails / Protection of openable windows</p> <p>All existing stairs, handrails, balustrades, landings, thresholds and windows within the building are to be upgraded to comply with today's codes and specifications.</p>	D3D14, D3D15, D3D16, D3D17, D3D18, D3D19, D3D20, D3D22, D3D29	D1P2
9	<p>Fire Hydrants</p> <p>Fire Hydrants are to be provided to the building in accordance with E1D2 and AS 2419.1 – 2021.</p> <p>The provision of hydrants in the fire isolated stairways will reduce the path of travel in the fire stairs to around 650mm in lieu of 1000mm.</p> <p>It is noted that the building will require a hydrant pump room, booster and a fire ring main as part of the fire hydrant system.</p>	E1D2	E1P3
10	<p>Fire Hose Reels</p> <p>Fire Hose Reels are to be provided within the carpark portions of the building in accordance with E1D3 of the BCA and AS 2441-2005.</p>	E1D3	E1P1
11	<p>Automatic Fire Suppression System</p> <p>An Automatic Fire Suppression System is to be provided to the building complying with E1D5 and specification 17.</p>	E1D5, Spec 17	E1P4

No.	Description	Relevant DTS Clauses	Performance Requirements
	It is noted that the building will require a sprinkler pump room, booster and a fire ring main as part of the sprinkler system.		
12	Fire Control Centres A fire control centre is required to be provided complying with E1D15 and specification 19.	E1D15, Spec 19	E1P6
13	Stair Pressurisation Stair pressurisation is to be provided to the fire isolated stairways complying with E2D4. The provision of the stair pressurisation system will further reduce the clearances in the fire stairs and therefore the existing fire stair dimensions would not be sufficient. This cannot be addressed through a performance solution.	E2D4	E2P2
14	Automatic Smoke Detection and Alarm System An automatic smoke detection and alarm system complying with E2D5 and Specification 20 clause 4 is to be provided.	E2D5, Spec 40	E2P2
15	Emergency Lifts An emergency lift is to be provided complying with E3D5 to all storeys of the building. It is noted that the current lift dimensions would not be sufficient for the installation of an emergency lift and there are currently multiple areas not afforded with access to an emergency lift.	E3D5	E3P2
16	Emergency Lighting Exit and Emergency lighting are to be provided within the building in accordance with Part E4 of the BCA and AS 2293.1 - 2018	Part E4	E4P1, E4P2
17	Emergency warning and intercom systems An EWIS system is to be provided complying with E4D9.	E4D9	E4P3

Further Assessment

The assessment of the design documentation has also revealed that the following additional information is required in order to complete the assessment, and/or the following areas need to be further reviewed.

No.	Further Information / Review Required
1.	Existing FRL's are to be confirmed by a structural engineer for assessment
2.	Clear site plan to be provided which outlines the location of all site boundaries

Documentation to enable assessment and demonstrate compliance will be required to address the above items prior to approval.

The application for Construction Certificate shall be assessed under the relevant provisions of the Environmental Planning & Assessment Act 1979 (As Amended) and the Environmental Planning & Assessment (Development Certification and Fire Safety) Regulation 2021.

3. INTRODUCTION

The existing building located at 117 Victoria Street Potts Point is a 1960's residential flat building. This report is based on a site audit conducting by Certatude to assess the existing building for compliance.

This report is based upon a site inspection of the premises on the 16th July 2024 and have reviewed the existing architectural design documents prepared by Henry Haber A.R.A.I.A (refer appendix A) for compliance with the building assessment provisions currently outlined in BCA 2022..

The report is intended as an overview of the relevant provisions of the Building Code of Australia for assistance only. Detailed drawings and associated review will still be required as the final design is developed.

The applicable legislation governing the design of buildings is the Environmental Planning and Assessment Act 1979. Section 19 of the of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulations 2021 requires all new building works to comply with the current BCA.

The BCA applicable to the development is the version that is in force at the time of a valid Construction Certificate application which includes the entrance floor. For the purposes of this Report, BCA 2022 has been utilised.

4. COMPLIANCE WITH THE BCA

The Building Code of Australia is a performance based document, whereby compliance is achieved by complying with the Governing Requirements and the Performance Requirements.

Performance Requirements are satisfied by one of the following:

- 1) A Performance Solution
- 2) A Deemed-to-Satisfy Solution
- 3) A combination of (1) and (2)

5. DOCUMENTATION OF PERFORMANCE SOLUTIONS

A Performance Solution must demonstrate compliance with all relevant Performance Requirements, or the solution must be at least equivalent to the Deemed-to-Satisfy provisions.

Compliance with the Performance Requirements is to be demonstrated through one or a combination of the following:

- a) Evidence of suitability in accordance with Part A5 of the BCA that shows the use of a material, product, plumbing and drainage product, form of construction or design meets the relevant Performance Requirements.
- b) A Verification Method including the following:
 - i. The Verification Methods provided in the NCC.
 - ii. Other Verification Methods, accepted by the appropriate authority that show compliance with the relevant Performance Requirements
- c) Expert Judgement
- d) Comparison with the Deemed-to-Satisfy Provisions

Where a Performance Solution is proposed as the method to achieve compliance, the following steps must be undertaken:

- a) Prepare a performance-based design brief in consultation with relevant stakeholders,
- b) Carry out analysis, using one or more of the assessment methods nominated above, as proposed by the performance-based design brief,
- c) Evaluate results from (b) against the acceptance criteria in the performance-based design brief,
- d) Prepare a final report that includes:
 - i. All Performance Requirements and/or Deemed-to-Satisfy Provisions identified as applicable,
 - ii. Identification of all assessment methods used,
 - iii. Details of required steps above,
 - iv. Confirmation that the Performance Requirement has been met; and
 - v. Details of conditions or limitations, if an exist, regarding the Performance Solution.

6. PRELIMINARIES

6.1. BUILDING ASSESSMENT DATA

Summary of Construction Determination:

Part of Project	Building 1
Classification	2, 7a
Number of Storeys	12
Rise In Storeys	12
Type of Construction	A
Effective Height (m)	>25m

Note:

- *The effective height of the project includes all stories included in the rise in stories of the project,*
- *The effective height has been assessed as more than 25m due to the number of storeys. RL levels are to be confirmed to confirm the effective height*

7. STRUCTURE

7.1. STRUCTURAL PROVISIONS (BCA B1)

New structural works are to comply with the applicable requirements of BCA Part B1, including AS/NZS 1170.0-2002, AS/NZS 1170-1-2002, AS/NZS 1170.2-2021 and AS 1170.4-2007.

Depending on the importance level of the building as determined by AS/NZS 1170.0-2002, the non structural elements of the building, including partitions (and non-structural fire walls), ceilings, services and racking/shelving may be required to comply with the seismic restraint requirements of AS 1170.4-2007. Where this is required, certification will be required confirming that the design of the seismic restraints comply with AS 1170.4-2007. This may be provided by a specialist seismic consultant or by the architect and services design engineers.

It is noted that Verification Method, B1V2 (previously BV2) is a pathway available to verify compliance with BCA Performance Requirement B1P1 (1)(c) (previously BP1.1(a)(iii)).

Glazing is to comply with AS1288-2021, and AS2047-2014.

Refer to structural engineering report prepared by M+G Consulting for structural observations and recommendations.

8. FIRE PROTECTION

8.1. FIRE COMPARTMENTATION (BCA C2D2 (PREVIOUSLY C1.1))

The BCA stipulates three levels of fire resistant construction, which is based upon the rise in storeys and classification of the building. Each of these types of construction has maximum floor area and volume limitations as per BCA Table C3D3 (previously C2.2).

Based upon the rise in storeys and use of the building, it is required to be constructed in accordance with the requirements of Type A Construction, in accordance with Tables S5C11a-g of Specification 5 (previously Table 3 & 3.9 of Specification C1.1) of the Building Code of Australia 2022.

The maximum floor area and volume limitations of a fire compartment as nominated in the deemed to satisfy provisions are as follows:

Classification		Type of Construction		
		A	B	C
7a (Carpark)	max floor area—	5 000 m ²	3 500 m ²	2 000 m ²
	max volume—	30 000 m ³	21 000 m ³	12 000 m ³

The carpark portions do not exceed the above limitations.

8.2. FIRE RESISTANCE (BCA C2D2 (PREVIOUSLY C1.1))

The building should be constructed generally in accordance with the relevant provisions of Specification 5 (previously Specification C1.1) of the BCA applicable to Type A Construction, Please refer to Appendix C which outlines the required fire rating to be achieved by the development.

Other passive fire protection issues that will need to be addressed in detailed documentation phase include:

- Lift Motor Rooms,

The above areas are to be separated from the remainder of the building by construction achieving a minimum fire resistance level of 120/120/120 and have -/120/30 self-closing fire doors.

Please note that with regards to fire separation, the provisions and required FRL's that apply to the building also apply to an occupiable outdoor space associated with the building.

The building is to be upgraded to achieve the required fire rating levels in accordance with Type A construction and the relevant classifications in specification 5.

The walls and doorways into the laundry rooms on the residential levels have not been provided with a fire rating as required for bounding construction.

Doorways are to be upgraded to achieve a fire rating of -/60/30 and be self closing. A performance solution will be required to address the FRL of the walls bounding the public corridor from the laundries.



8.3. FIRE HAZARD PROPERTIES (BCA C2D10 AND C2D11 (PREVIOUSLY C1.10 AND BCA C1.9))

External Wall Cladding

Since the building is of Type A construction, the following components are required to be completely non-combustible:

- External walls and common walls, including façade coverings, framing, insulation;
- Flooring and floor framing of lift pits;
- Non-loadbearing internal walls required to have an FRL;
- All non-loadbearing shafts;
- All loadbearing internal walls and loadbearing fire walls, including those that are part of loadbearing shafts.

Please provide product specifications and test reports to AS 1530.1-1994 for all materials to demonstrate compliance.

For materials and assemblies that are required to be non-combustible, the material or system must be not deemed combustible when tested in accordance with AS 1530.1-1994.

The above noted requirements do not apply to the following:

- a) Gaskets,

- b) Caulking,
- c) Sealants,
- d) Termite management systems,
- e) Glass, including laminated glass, and associated adhesives, including tapes,
- f) Thermal breaks associated with—
 - i. glazing systems; or
 - ii. external wall systems, where the thermal breaks—
 - A. are no larger than necessary to achieve thermal objectives; and
 - B. do not extend beyond one storey; and
 - C. do not extend beyond one fire compartment.
- g) Damp-proof courses,
- h) Compressible fillers and backing materials, including those associated with articulation joints, closing gaps not wider than 50 mm,
- i) Isolated—
 - i. construction packers and shims; or
 - ii. blocking for fixing fixtures; or
 - iii. fixings, including fixing accessories; or
 - iv. acoustic mounts.
- j) Waterproofing materials applied to the external face, used below ground level and up to 250 mm above ground level,
- k) Joint trims and joint reinforcing tape and mesh of a width not greater than 50 mm,
- l) Weather sealing materials, applied to gaps not wider than 50 mm, used within and between concrete elements,
- m) Wall ties and other masonry components complying with AS 2699 Part 1 and Part 3 as appropriate, and associated with masonry wall construction,
- n) Reinforcing bars and associated minor elements that are wholly or predominately encased in concrete or grout,
- o) A paint, lacquer or a similar finish or coating,
- p) Adhesives, including tapes, associated with stiffeners for cladding systems,
- q) Fire-protective materials and components required for the protection of penetrations.

Combustible Materials

The following materials, though combustible or containing combustible fibres, may be used wherever a non-combustible material is required:

- a) Plasterboard.
- b) Perforated gypsum lath with a normal paper finish.
- c) Fibrous-plaster sheet.
- d) Fibre-reinforced cement sheeting.
- e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0.
- f) Sarking type materials that do not exceed 1mm in thickness and have a Flammability Index not greater than 5.
- g) Bonded laminated materials where -
 - (i) each laminate is non-combustible; and
 - (ii) each adhesive layer does not exceed 1 mm in thickness; and
 - (iii) the total thickness of the adhesive layers does not exceed 2 mm; and
 - (iv) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole does not exceed 0 and 3 respectively.

It is recommended that once material selections are made, copies of the fire test certificates/reports be provided for review and approval.

BCA 2022 introduced a number of additional clarifications and considers the following materials, when entirely composed of itself, are non-combustible and may be used wherever a non-combustible material is required:

- a) Concrete.
- b) Steel, including metallic coated steel,
- c) Masonry, including mortar,
- d) Aluminium, including aluminium alloy,
- e) Autoclaved aerated concrete, including mortar,
- f) Iron,
- g) Terracotta,
- h) Porcelain,
- i) Ceramic,
- j) Natural stone,
- k) Copper,
- l) Zinc,
- m) Lead,
- n) Bronze,
- o) Brass.

Any Aluminium Composite Panels must be labelled in accordance with SA TS 5344.

The BCA does nominate that ancillary elements may not be fixed to an external wall that is required to be non-combustible unless they comprise of the following:

- a) An ancillary element that is non-combustible.
- b) A gutter, downpipe or other plumbing fixture or fitting.
- c) A flashing.
- d) A grate or grille not more than 2 m² in area associated with a building service.
- e) An electrical switch, socket-outlet, cover plate or the like.
- f) A light fitting.
- g) A required sign.
- h) A sign other than one provided under (a) or (g) that—
 - i) achieves a group number of 1 or 2; and
 - ii) does not extend beyond one storey; and
 - iii) does not extend beyond one fire compartment; and
 - iv) is separated vertically from other signs permitted under (h) by at least 2 storeys.
- i) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that—
 - i) meets the relevant requirements of Table S7C7 as for an internal element; and
 - ii) serves a storey—
 - A. at ground level; or
 - B. immediately above a storey at ground level; and
 - iii) does not serve an exit, where it would render the exit unusable in a fire.
- j) A part of a security, intercom or announcement system.
- k) Wiring.
- l) Waterproofing material installed in accordance with AS 4654.2 and applied to an adjacent floor surface, including vertical upturn, or a roof surface.
- m) Collars, sleeves and insulation associated with service installations.
- n) Screens applied to vents, weepholes and gaps complying with AS 3959.
- o) Wiper and brush seals associated with doors, windows or other openings.
- p) A gasket, caulking, sealant or adhesive directly associated with (a) to (o)

Please provide fire hazard properties reports for any proposed signs and confirm their extent i.e. not spanning more than one storey or fire compartment:

Interior Linings

The fire hazard properties of fixed surface linings and mechanical ductwork will also need to be addressed within the detailed documentation phase pursuant to Specification 7 (previously Specification C1.10) of the Building Code of Australia. The following requirements apply:

Sprinkler Protected Areas

- a) Floor Coverings – Critical radiant Flux not less than 1.2 kW/m²
- b) Wall and Ceiling Linings – Material Group No. 1,2,3
- c) Other Materials – Spread of Flame Index not exceeding 9 and Smoke Developed Index not exceeding 8.

Rigid and flexible air handling ductwork must comply with AS4254 Parts 1 & 2 2012.

Floor linings and floor coverings used in lift cars must have a critical radiant flux not less than 2.2, and wall and ceiling linings must be a Material Group No. 1 or 2.

All Internal floor wall and ceilings linings are to be upgraded to comply with specification C2D11.

8.4. SEPARATION OF EQUIPMENT (C3D13 (PREVIOUSLY C2.12))

Equipment listed below must be separated from the remainder of the building providing a FRL as required by Specification 5 (previously Spec C1.1) but not less than 120/120/120 with a self-closing fire door with an FRL or not less than -/120/30. When separating a lift shaft and life motor room, an FRL of not less than 120/-/- is required.

- a) Lift motors and lift control panels

8.5. VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALLS (BCA C3D7 (PREVIOUSLY C2.6))

A building of Type A construction must be provided with spandrel separation between openings on different storeys unless the building is protected with a sprinkler system (other than a FPAA101D or FPAA101H system) throughout in accordance with Specification 17 (previously Specification E1.5). It is noted where the building sprinkler system is subject to performance solution, the concession noted above would need to be addressed on a performance basis.

For the purposes of C3D7 (previously C2.6), window or other opening means that part of the external wall of a building that does not have an FRL of 60/60/60 or greater.

Spandrels are required in accordance with BCA Clause C3D7 (previously C2.6), which stipulates a 900mm high spandrel; with 600mm of this spandrel being above the finished floor level. Alternatively, an 1100mm horizontal slab may be utilized. The spandrel material is required to be non-combustible and to achieve an FRL of 60/60/60.

It is noted that any penetrations in the spandrel construction e.g. for drainage, overflow etc. are to be protected.

Detailed elevations will be required to enable a full check and assessment to be undertaken of the spandrels proposed. Due to the building not being provided with a sprinkler system not complying with specification 17, the concession cannot be applied.

8.6. PUBLIC CORRIDORS: CLASS 2 AND 3 BUILDINGS (BCA C3D15 (PREVIOUSLY C2.14))

Public corridors exceeding 40m in length to be divided into intervals of not more than 40m by smoke proof walls complying with Clause 2 of BCA Specification 11 (previously Specification C2.5).

Public corridors do not exceed 40m, however detailed plans are to be provided to confirm assessment.

8.7. PROTECTION OF OPENINGS IN EXTERNAL WALLS (BCA C4D3, C4D4, C4D5, C4D9 (PREVIOUSLY C3.2 / C3.3 / C3.4))

The prescriptive provisions of the BCA stipulate that any external opening within 3m of the boundary, within 6m of the far boundary of a road, river, lake or the like that adjoins the allotment, or within 6m of another building on the allotment requires protection by -/60/- fire rated construction, or externally located wall wetting sprinklers.

Where a building is separated into fire compartments, the distance between parts of external walls and openings within them must be not less than the table below unless those parts of each external wall has an FRL not less than 60/60/60 and openings are protected.

Angle Between Walls	Minimum Distance
0° (walls opposite)	6m
More than 0° to 45°	5m
More than 45° to 90°	4m
More than 90° to 135°	3m
More than 135° to 180°	2m
More than 180°	Nil

Based on the plans and the site inspection conducted, there appears to be no openings located within 3m to the boundary. Detailed site plans are required to confirm proximity of openings to fire source features.

The following departures are noted:

- Openings in the class 2 and class 7a portions are located within 6m.
- Fire stairs serving the residential levels are currently provided with openings to the northern boundary. These windows are currently located within 6m to windows and other openings in the same building.



Fire source feature is defined as;

- a) *The far boundary of a road, river, lake or the like adjoining an allotment,*

- b) *The side or rear boundary of the allotment,*
- c) *The external wall of another building on the allotment which is not a class 10 building.*

8.8. PROTECTION OF OPENINGS FIRE RATED BUILDING ELEMENTS (BCA C4D6, C4D11 (PREVIOUSLY C3.5 AND BCA C3.10))

The prescriptive provisions of the BCA stipulate that openings within building elements required to have an FRL shall be protected as follows:

- a) Penetrations through fire rated floors to be protected either by a tested prototype (e.g. fire collar, fire damper, etc) or be installed within a fire rated shaft achieving an FRL the same as the FRL of the floor it is passing through;
- b) Any penetration through a wall or room required to have an FRL (e.g. substation, boiler room, apartment separating wall etc) is to be protected either by a tested prototype (e.g. fire collar, fire damper, etc) or be installed within a shaft achieving an FRL the same as the FRL of the floor it is passing through;;
- c) Self-closing -/60/30 fire doors to the doors opening to the fire isolated stairs (note that this also includes the access doors to the condenser units on the plant platforms).

Note that where fire dampers, fire collars, etc are utilised, allowance needs to be made for access hatches to be provided within the walls / ceilings to ensure that maintenance access is provided.

As the design develops, details will need to be included in relation to sealing of penetrations / construction of fire rated shafts.

All existing services proposed to remain within the building that currently penetrate any fire rated elements within the building, is required to be upgraded to a system complying with C4D13, C4D15 of the BCA. It is recommended that a fire stopping specialist be engaged, to confirm design parameters prior to proceeding.

9. ACCESS AND EGRESS

9.1. PROVISION FOR ESCAPE (BCA D2 (PREVIOUSLY D1))

The egress provisions for the proposed building are provided by the following:

- Fire isolated stairways,
- Non-fire isolated stairs,
- External doors,

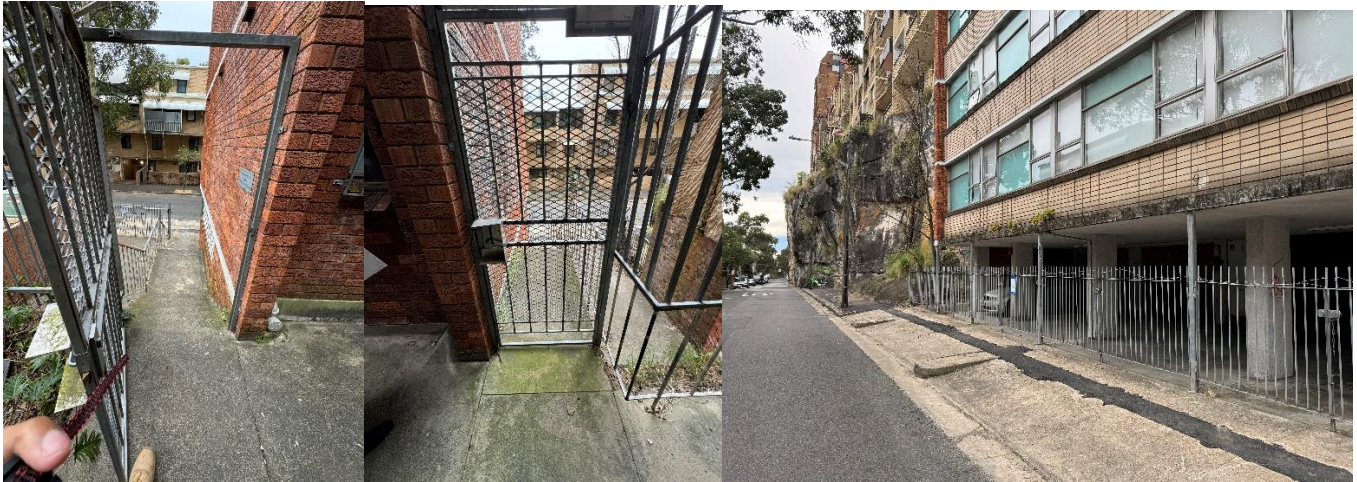
The egress provisions that apply to the building also apply to any occupiable outdoor areas.

Detailing issues that will need to be addressed as the design develops include:

- Door hardware,
- Exit door operation,
- Stair construction,
- Handrail and balustrade construction,
- Discharge from fire isolated exits,
- Details of the egress provisions to the road,
- Door swings

The following departures are noted:

- There are currently multiple paths of travel from exit discharge points to the road that are blocked with locked gates. An unrestricted path of travel is to be provided from all exits to the road.
- Only one exit has been provided in lieu of two on levels C, D, E & Roof.
- Gates providing egress to the road currently do not swing in the direction of egress.



9.2. REQUIRED FIRE ISOLATION OF EXITS (BCA CLAUSE D2D5 (PREVIOUSLY D1.3))

Class 2

Stairs are required to be fire isolated unless they connect, pass through or pass by not more than 3 storeys in a Class 2 building.

An additional storey of any classification may be added if:

- i) It is only for the accommodation of motor vehicles or for other ancillary purposes; or
- ii) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or
- iii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having—
 - A. an FRL of –/60/60, if non-loadbearing; and
 - B. an FRL of 90/90/90, if loadbearing; and
 - C. no opening that could permit the passage of fire or smoke.

Class 7a

Stairs utilised as required exits must be fire isolated where they connect, pass through or pass by more than 2 consecutive storeys and, an extra storey may be added if the building has a sprinkler system (other than a FPAA101D system) installed throughout.

Alternatively, where the stair does not provide access to or egress from the third storey, and is separated from that storey by construction achieving and FRL of 60 minutes or, in a Type A building where the construction is loadbearing, 90 minutes, the exit is also not required to be fire isolated.

The proposed exits are required to be fire isolated.

9.3. TRAVEL VIA FIRE ISOLATED EXITS (BCA D2D12 (PREVIOUSLY D1.7))

The BCA requires each fire isolated stairway to provide independent egress from each storey served and discharge directly, or by way of its own fire isolated passageway to:

- A road or open space; or
- To a point in a storey within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least 2/3 of its perimeter, and an unimpeded path of travel not more than 20m to a road or open space; or
- A covered area that adjoins a road or open space, is open for at least 1/3 of its perimeter, has an unobstructed clear height throughout of not less than 3m, and provides an unimpeded path of travel to a road or open space of not less than 6m.

Additionally, where the path of travel from the point of discharge requires occupants to pass within 6m of any part of the external wall of the same building (measured horizontally), that external wall must have a 60/60/60 FRL and have any openings protected internally for a distance of 3m above or below the path of travel.

The following departures are noted:

Level B & F

- Discharge from fire isolated exits will necessitate passing within 6m to the external wall and associated openings.

Roof Plan

- Lift motor room opens directly into the fire isolated stairway.

All levels

- There are currently multiple combustible materials located in the fire isolated stairways, due to the stairways currently being used as circulation stairs.

9.4. EXIT TRAVEL DISTANCES (BCA D2D5, D2D6 (PREVIOUSLY D1.4, D1.5))

The locations of the proposed exits would appear to indicate that the deemed to satisfy requirements in terms of travel distances, distances between alternative exits and egress widths would be satisfied/deviate from the DTS provisions as outlined below

The travel distances to exits should not exceed:

Class 5 to 9

- no point on the floor must be more than 20m to a single exit or point of choice and where two exits are provided, a maximum of 40m to one of those exits; and
- exits shall be located to not be more than 60m apart and not closer than 9m

Class 2 & 3

- 6m from an exit or from a point of choice from the entrance doorway of a sole occupancy unit
- 20m from a single exit at the level of egress to a road or open space
- Alternate exits not more than 45m apart

The above indicates that the deemed to satisfy requirements in terms of travel distances would be satisfied, with the exception of the following areas:

Roof Level

- 32m to a single exit in lieu of 20m (excessive).

The extended travel distances and distance between the exit stairs will need to be addressed to comply with the requirements of the deemed to satisfy provisions noted above, or be assessed as performance solutions by the Fire Safety Engineer using BCA Performance Requirements D1P4 and E2P2 (previously DP4 & EP2.2)

9.5. DIMENSIONS OF EXITS (BCA D2D7, D2D8, D2D9, D2D10, D2D11 (PREVIOUSLY D1.6))

Minimum dimensions of 1000mm and 2000mm height to be provided within exits, with the paths of travel should provide a minimum width of 1000mm (note that all maintenance access, cat walks, etc may comply with AS1657-2018 in which case a 600mm clear width is required).

The following table summarises the exit widths required by BCA Clause D2D7, D2D8, D2D9, D2D10, D2D11 (previously D1.6):

Storey	Number of people	Exit Width Required	Exit Width Provided
Level A	3	2m	2m
Levels C, D & E	4	2m	1m
Level B	4	2m	1m
Level F	9	2m	2m
Level G	14	2m	2m
Level H	14	2m	2m
Levels I, J & K	12	2m	2m
Roof	1	2m	1m

Doorways are permitted to contain a clear opening width of the required width of the exit minus 250mm, with a height of 1980mm as part of egress requirements. Access for persons with disabilities however requires a clear doorway opening width of 850mm (i.e. minimum 920 mm doors).

The following departures are noted:

- There are currently multiple paths of travel across the buildings that have reduced widths of less than 1000mm.
- Due to the location of the existing services, the height in portions of the carpark area is reduced to 1970mm in lieu of 2100mm.
- Height in the fire isolated stairway is reduced to 1930mm in lieu of the required 2000mm.
- The doorway into the switchroom is currently reduced to 650mm in lieu of 750mm.



9.6. BALUSTRADES AND HANDRAILS (BCA D3D17, D3D18, D3D19, D3D20, D3D22, D3D29 (PREVIOUSLY D2.16 / BCA D2.17 / D2.24))

Generally

Balustrading to a minimum height of 1000mm with a maximum opening of 124mm in any direction should be provided adjacent to balconies, landings, corridors etc where located adjacent to a change in level exceeding 1000mm, or where it is possible to fall through an openable window located more than 4m above the surface beneath.

Where it is possible to fall more than 4m to the surface below, the balustrade shall not contain any horizontal or near horizontal members that facilitate climbing between 150 – 760mm above the floor. It is noted that these provisions also apply to any building elements, including AC covers and the like, that are within 1m of the required balustrade.

Where a required barrier is fixed to the vertical face forming an edge of a landing, balcony, deck, stairway or the like, the opening formed between the barrier and the face must not exceed 40 mm.

Handrails should generally be provided at a minimum height of 865mm alongside of all ramps and stairs.

The public stairs and ramps located along an accessible path of travel should be designed in accordance with the requirements of AS1428.1 for persons with disabilities. This requires a handrail on each side of the stair and ramp and for the handrail to extend approximately 550mm – 600mm past the last tread / end of ramp.

Strength and rigidity of all balustrades to play spaces are to comply with AS 1926.1.

Openable Windows in Bedrooms

In bedrooms of Class 2 buildings where the distance from the floor level to the level below exceeds 2m, window openings shall be provided with protection in accordance with BCA Clause D3D29.

Where the lowest part of the window opening is less than 1.7m above a floor, the window opening must be:

- a) Fitted with a device to restrict the opening; or
- b) Fitted with a screen with secure fittings

The device or screen required must –

- a) Not permit a 125mm sphere to pass through it; and
- b) Resist an outward horizontal action of 250N; and
- c) Have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden

The following departures are noted:

- All existing stairs, handrails, balustrades, landings, thresholds and windows within the building are to be upgraded to comply with today's codes and specifications.
- There is currently a single step provided at the discharge point of the fire isolated stairs on level B. Clause D3D14 does not permit the provision of a single step.
- There is currently a single step from the residential area to the carpark level.



9.7. SLIP RESISTANCE (BCA D3D15 (PREVIOUSLY D2.14))

The slip resistance requirements for ramps and stairs are outlined below:

Table D3D15 (prev. Table D2.14) SLIP-RESISTANCE CLASSIFICATION

Application	Surface conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

10. SERVICES AND EQUIPMENT

The following section of this report describes the essential fire safety measures and the minimum performance requirements of those measures. A draft essential fire safety schedule can be found in Appendix B.

It is noted that the provisions below also apply to occupiable outdoor areas.

10.1. FIRE HYDRANTS (BCA E1D2 (PREVIOUSLY E1.3))

A Fire Hydrant system is required to be provided in accordance with BCA Clause E1D2 (prev. E1.3) and AS2419.1-2021.

All fire hydrants shall have the centre line of the fire hydrant valve or outlet not less than 750mm and not more than 1200mm above the ground, finished floor level or platform as outlined in AS2419.1-2021.

Pressure and flow information will be required to confirm the required pressures and flow to the system, depending on the type of hydrant to be utilized;

The fire services/hydraulic engineer is to confirm the required flow rates for the development.

The building is required to be provided with a booster assembly as part of the fire hydrant requirements. The booster is required to be located at the main entry. If remote from the building, the booster is to be located at the main vehicle entry or with sight of the main entry of the building within 20m of a hardstand area.

The booster protection requirements apply to any booster which is located within 10m of the building it serves unless provided with a DTS sprinkler system. The protection requirements are summarised below:

- i. Wall behind the booster which achieves a minimum FRL of 90/90/90 must be achieved from a DTS perspective
- ii. This must extend not less than 2m from each side of the centre line of the fire hydrant riser and,
- iii. Extend to a height not less than 3m above ground level

A fire ring main is required.

The provision of hydrants in the fire isolated stairways will reduce the path of travel in the fire stairs to around 650mm in lieu of 1000mm.

The following departures are noted:

- As the building has multiple entrances, the booster will not be located within sight of the main entrance.
- Booster is currently located perpendicular to the street and access to the booster is not a level surface (i.e accessed via steep driveway)



10.2. FIRE HOSE REELS (BCA E1D3 (PREVIOUSLY E1.4))

A Fire Hose Reel System is required to BCA Clause E1D3 (previously E1.4) and AS2441-2005.

Fire hose reel assemblies shall be suitably mounted at a spindle height of between 1400mm and 2400mm above floor level as outlined in AS2441-2005.

The system is required to provide coverage to the class 7a zones only.

Fire hose reels are to be located within 4m of exits and provide coverage within the building based on a 36m hose length and 4m of water spray. Where required, additional fire hose reels shall be located internally as required to provide coverage. These hose reels are to be located adjacent to internal hydrants.

Fire hose reel cupboards must not contain any other services such as water meters, etc., and doors to fire hose reel cupboards are not to impede the path of egress unless a performance solution is developed under BCA Performance Requirement E1P1 (previously EP1.1).

Fire Hose reel are not to extend through Fire and Smoke Walls.

10.3. FIRE EXTINGUISHERS (BCA E1D14 (PREVIOUSLY E1.6))

The provision of portable fire extinguishers is required to BCA Clause E1D14 (previously E1.6) and AS2444 - 2001 to provide coverage to the following zones.

Portable fire extinguishers must be located not more than 1200mm from the finished floor and not less than 100mm as outlined in AS2444-2001.

E1D14 details when portable fire extinguishers are required:

Occupancy Class	Risk Class (as defined in AS 2444)
General provisions – Class 2 to 9 buildings (except within sole-occupancy units of a Class 9c building)	a) To cover Class AE or E fire risks associated with emergency services switchboards. (Note 1) b) To cover Class F fire risks involving cooking oils and fats in kitchens. c) To cover Class B fire risks in locations where flammable liquids in excess of 50 litres are stored or used (not excluding that held in fuel tanks of vehicles). d) To cover Class A fire risks in normally occupied fire compartments less than 500m ² not provided with fire hose reels (excluding open deck carparks). e) To cover Class A fire risks in classrooms and associated schools not provided with fire hose reels. f) To cover Class A fire risks associated with Class 2 or 3 building or class 4 part of building.

In addition, extinguishers are to be provided to the class 2 portions of the building in accordance with the below:

- an ABE type fire extinguisher is to be installed with a minimum size of 2.5 kg; and
- extinguishers are to be distributed outside a sole-occupancy unit:
 - a) to serve only the storey at which they are located; and

- b) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m.

Fire extinguishers are to be located in accordance with AS 2444 - 2001, often collocated with fire hydrants and/or fire hose reels.

10.4. AUTOMATIC SPRINKLER PROTECTION (BCA E1D4 – E1D13 (PREVIOUSLY E1.5))

Automatic sprinkler protection is required to Specification 17 (previously Spec. E1.5) and AS2118.1-2017 to the following areas:

- Throughout the entire building where the effective height exceeds 25m,

The sprinkler system shall be connected to and activate an occupant warning system complying with BCA Specification 20 (prev. Spec E2.2a).

Details of the proposed sprinkler system design will need to be reviewed as the design develops.

An occupant warning system should be provided in accordance with BCA Specification 17 (previously Spec E1.5).

10.5. SPECIAL HAZARDS (BCA E1D17 (PREVIOUSLY E1.10))

Any special hazard is to be included in the project FEBQ for comment by FRNSW. A list of some special hazards that may require FRNSW and fire engineering involvement are as following:

- i. EV charging stations,
- ii. Alternative electrical generation (solar, tri-gen),
- iii. Car lifts/stackers,
- iv. Podium type buildings,
- v. Combustible external cladding,
- vi. Green walls,
- vii. An atrium,
- viii. Insulated sandwich panels,
- ix. Automatic storage and retrieval systems

10.6. SMOKE HAZARD MANAGEMENT (BCA E2D3 – E2D20 (PREVIOUSLY E2.2))

Smoke hazard management shall be provided throughout the building by means of the following systems:

- Automatic Smoke Detection System complying with BCA Specification 20 Clause 4 (previously E2.2a) and AS 1670.1-2018
- Building Occupant Warning System activated by the smoke alarm/detection in accordance with BCA Specification 20 Clause 7 (previously Spec E2.2a) and Clause 3.22 of AS 1670.1-2018
- Automatic Pressurisation to Fire Isolated Exits in accordance with the requirements of AS/NZS 1668.1-2015 Amendment 1. It is noted that this is to be provided to the entire exit.
- Carpark ventilation systems must comply with Clause 5.5 of AS/NZS1668.1-2015 Amendment 1

A fire indicator panel is required as part of the detection system. This panel is to be located within 4m of the main entry and should be incorporated within the fire control room. Any variation to the prescriptive provisions will require the consent of the fire brigade and should form part of the fire safety engineering report to verify the performance requirements of the BCA.

It is noted that the provision of the stair pressurisation system will further reduce the clearances in the fire stairs.

10.7. LIFT SERVICES (BCA E3D3, E3D4, E3D5, E3D9, E3D10, E3D11 E3.4 AND BCA E3.6)

The passenger lifts to be installed are to be:-

- Fitted with warning signs, fire service controls in accordance with Clauses E3D4, Figure E3D4, E3D9, E3D11, and E3D12 (previously E3.3, Figure E3.3, E3.7, E3.9 and E3.10) of the BCA.
- Stretcher facilities are to be provided within the lifts with minimum dimensions of 600mm wide, 2000mm long and 1400mm high;
- At least two emergency lifts with stretcher facilities in accordance with Clause E3D5 (previously Part E3.4) of the BCA. The two emergency lifts shall be located in separate shafts. These lifts are to serve all storeys that are served by passenger lifts.
- Be provided with the following in order to satisfy accessibility requirements:
 - A handrail in accordance with AS1735.12-1999,
 - Minimum internal floor dimensions of 1400 x 1600mm for lifts which travel more than 12m, or 1100 x 1400mm for lifts which travel not more than 12m,
 - Fitted with a series of door opening sensory devices which will detect a 75mm diameter or across the door opening between 50mm and 1550mm above floor level,
 - Have a set of buttons for operating the lift located at heights above level complying with AS1735.12 - 1999
 - For lifts serving more than 2 levels, automatic audible information within the lift car identifying the level each time the car stops, and audible and visual indication at each lift landing to indicate the arrival of a car

It is noted that the current lift dimensions would not be sufficient for the installation of an emergency lift and there are currently multiple areas not afforded with access to an emergency lift.



10.8. EXIT SIGNS AND EMERGENCY LIGHTING (BCA E4D2, E4D4, E4D5, E4D6 AND E4D8 (PREVIOUSLY E4.2 E4.5, E4.6, E4.8))

Emergency Lighting and Exit Signs indicating exit location paths of travel to exits to be provided in accordance with BCA Part E4 and AS/NZS 2293.1-2018, including the potential use of photo luminescent exit signs.

Where exit signs are proposed to be above 2.7m to avoid potential damage by forklifts in the warehousing areas, this will need to be documented as a performance solution by an accredited fire safety engineer. This would need to be assessed to BCA Performance Requirement E4P2 (previously EP4.2).

Details are required to be provided for review.

10.9. EMERGENCY WARNING AND INTERCOM SYSTEMS (BCA E4D9 (PREVIOUSLY E4.9))

An Emergency warning and intercom systems is required in accordance with AS1670.4-2018 and BCA Clause E4D9 (previously E4.9).

Details are to be provided for our review.

10.10. FIRE CONTROL CENTRE (BCA E1D15 (PREVIOUSLY E1.8))

As the building has an effective height of greater than 25m, a fire control centre is required. Where the effective height of the building exceeds 50m, the fire control centre must be located within a dedicated, fire rated room in accordance with the requirements of BCA Specification 19 (previously Spec E1.8)

A fire control centre is to be provided in accordance with this clause.

10.11. FIRE PRECAUTIONS DURING CONSTRUCTION (BCA E1D16 (PREVIOUSLY E1.9))

After the building has reached an effective height of 12m, the following fire services are required to be operational:

- Required fire hydrants and fire hose reels on every storey covered by the roof/floor structure (except the 2 uppermost storeys); and
- Booster connections installed.

Due to the height of the building this will need to be considered and implemented during construction.

11. APPENDIX A – REFERENCE DOCUMENTATION

The following documentation was used in the assessment and preparation of this report:

Drawing No.	Title	Revision	Date	Prepared By
26316	Front Elevation	-	3.9.63	Henry A.R.A.I.A Haber
96/3	West & Easy elevations	3	20.3.1963	Henry A.R.A.I.A Haber
97/3	North Elevation	3	20.3.63	Henry A.R.A.I.A Haber
99	Typical Flats	-	May 1960	Henry A.R.A.I.A Haber
92	Levels A-F	-	May 1960	Henry A.R.A.I.A Haber
94	Levels I - Roof	-	May 1960	Henry A.R.A.I.A Haber
93	Levels G and H	-	May 1960	Henry A.R.A.I.A Haber

12. APPENDIX B – DRAFT FIRE SAFETY SCHEDULE

No.	Measure	Standard of Performance	Status
Statutory Fire Safety Measures			
1.	Automatic Fail Safe Devices	BCA 2022 Clause D3D24 & D3D26	
2.	Automatic Fire Detection and Alarm System	BCA 2022 Clause E2D5, Spec 20 Clause S20C4, AS 1670.1 – 2018.	
3.	Automatic Fire Suppression System	BCA 2022 Clause E1D5, Spec 17 & AS 2118.1 – 2017 Amdt 1 & 2,	
4.	Emergency Lifts	BCA 2022 Clause E3D5 & AS 1735.1 – 2016	
5.	Emergency Lighting	BCA 2022 Clause E4D2, E4D4 & AS/NZS 2293.1 – 2018	
6.	EWIS (Sound Systems and Intercom Systems for Emergency Purpose)	BCA 2022 Clause E4D9 & AS 1670.4 - 2018	
7.	Exit Signs	BCA 2022 Clauses E4D5, E4D6 & E4D8 and AS/NZS 2293.1 – 2018	
8.	Fire Control Centres	BCA 2022 Spec. 19	
9.	Fire Doors	BCA 2022 Clause C4D3, C4D5, C4D6, C4D7, C4D8 & C4D9 and AS 1905.1 – 2015	
10.	Fire Hose Reels	BCA 2022 Clause E1D3 & AS 2441 – 2005 Amdt 1	
11.	Fire Hydrant System	BCA 2022 Clause C3D13, E1D2, Spec 18, I3D9 & AS 2419.1 – 2021	
12.	Fire Seals, Collars (electrical, hydraulic, mechanical, fire)	BCA 2022 Clause C4D15, C4D16, Spec 13, Spec 14, & AS 1530.4 –2014	
13.	Lightweight Construction	BCA 2022 Clause C2D9, Spec 6	
14.	Mechanical Air Handling System (stair pressurisation)	BCA 2022 Clause E2D4, AS/NZS 1668.1 – 2015	
15.	Portable Fire Extinguishers	BCA 2022 Clause E1D14 & I3D11, AS 2444 – 2001	
16.	Smoke alarms and heat alarms	BCA 2022 Spec 20 & AS 3786 - 2014	
17.	Smoke Detectors and Heat Detectors	BCA 2022 Clause E2D3, AS/NZS 1668.1 – 2015	
18.	Warning and Operational Signs	EP&A (Development Certification and Fire Safety) Regulation 2021 Clause 108, BCA 2022 Clause C4D7, D3D28, E3D4, NSW I4D14 & AS 1905.1 –2015	

Other Fire Safety Measures			
19.	Emergency Evacuation Plan	AS 3745 – 2010	
20.	Paths of Travel	EP&A (Development Certification & Fire Safety) Reg 2021 Section 108, 109	
21.	Required Exit Doors (power operated)	BCA 2022 Clause E3D24 (3)	

13. APPENDIX C – FIRE RESISTANCE LEVELS

The table below represents the Fire resistance levels required in accordance with BCA 2022:

Type A Construction

Table S5C11a: Type A Construction: FRL of loadbearing parts of external walls

Distance from a fire source feature	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3m	90/60/30	120/90/90	180/180/120	240/240/180
3m or more	90/60/30	120/60/30	180/120/90	240/180/90

Table S5C11b: Type A Construction: FRL of non-loadbearing parts of external walls

Distance from a fire source feature	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	-/90/90	-/120/120	-/180/180	-/240/240
1.5 to less than 3m	-/60/60	-/90/90	-/180/120	-/240/180
3m or more	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11c: Type A Construction: FRL of external columns non incorporated in an external wall

Column type	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing	90/-/-	120/-/-	180/-/-	240/-/-
Non-loadbearing	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11d: Type A Construction: FRL of common walls and fire walls

Wall type	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing or non-loadbearing	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C11e: Type A Construction: FRL of loadbearing internal walls

Location	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8

Fire-resisting lift and stair shafts	90/90/90	120/120/120	180/120/120	240/120/120
Bounding public corridors, public lobbies and the like	90/90/90	120/-/-	180/-/-	240/-/-
Between or bounding sole-occupancy units	90/90/90	120/-/-	180/-/-	240/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	90/90/90	120/90/90	180/120/120	240/120/120

Table S5C11f: Type A Construction: FRL of non-loadbearing internal walls

Location	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	-/90/90	-/120/120	-/120/120	-/120/120
Bounding public corridors, public lobbies and the like	-/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units	-/60/60	-/-/-	-/-/-	-/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	-/90/90	-/90/90	-/120/120	-/120/120

Table S5C11g: Type A Construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Location	FRL (in minutes): Structural Adequacy/ Integrity/ Insulation			
	Class 2,3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Other loadbearing internal walls, internal beams, trusses and columns	90/-/-	120/-/-	180/-/-	240/-/-
Floors	90/90/90	120/120/120	180/180/180	240/240/240
Roofs	90/60/30	120/60/30	180/60/30	240/90/60

(3) Carparks

For building elements in a carpark as described in (1) and (2), the following minimum FRLs are applicable:

a) External wall:

- i. Less than 3 m from a fire-source feature to which it is exposed:
 - A. Loadbearing: 60/60/60.
 - B. Non-loadbearing: -/60/60.
- ii. 3 m or more from a fire-source feature to which it is exposed: -/-/-.

b) Internal wall:

- i. Loadbearing, other than one supporting only the roof (not used for carparking): 60/-/-.
 - ii. Supporting only the roof (not used for carparking): -/-/-.
 - iii. Non-loadbearing: -/-/-.
- c) Fire wall:
- i. From the direction used as a carpark: 60/60/60.
 - ii. From the direction not used as a carpark: as required by Tables S5C11a to S5C11g.
- d) Columns:
- i. Supporting only the roof (not used for carparking) and 3 m or more from a fire-source feature to which it is exposed: -/-/-.
 - ii. Steel column, other than one covered by (i) and one that does not support a part of a building that is not used as a carpark—
 - A. 60/-/-; or
 - B. an ESA/M of not greater than 26m²/tonne.
 - iii. Any other column not covered by (i) or (ii): 60/-/-.
- e) Beams:
- i. Steel floor beam in continuous contact with a concrete floor slab
 - A. 60/-/-; or
 - B. an ESA/M of not greater than 30m²/tonne.
 - ii. Any other beam: 60/-/-.
- f) Fire-resisting lift and stair shaft (within the carpark only): 60/60/60.
- g) Floor slab and vehicle ramp: 60/60/60.
- h) Roof (not used for carparking): -/-/-.
- (4) For the purposes of subclause (3):
- a) ESA/M means the ratio of exposed surface area to mass per unit length.
 - b) Refer to Specification 17 for special requirements for a sprinkler system in a carpark complying with (3) and (b) located within a multi-classified building.



Residential Development
117 Victoria Street, Potts Point

Fire Safety Assessment Report

Prepared for: **Ceerose Pty Ltd**
Report No. **23257-R01**
Issue No. **1**
Issue Date: **01 August 2024**



QUALITY SYSTEM

Report Register

Reference	Issue No.	Remarks	Date	Prepared By
23257-R01	1	Initial issue	01-08-2024	BH

Authorised by



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1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

This Report has been prepared by Innova Services Australia Pty Ltd for Ceerose Pty Ltd, and presents a Fire Safety Assessment for the existing building located at 117 Victoria Street, Potts Point.

The purpose of this report is to:

1. Review of those areas of non-conformance identified as major deficiencies within the fire and life safety prescriptive provisions of the National Construction Code (NCC) Volume 1 Building Code of Australia (BCA - Sections C, D, & E) as identified by Council's Fire Safety Order; and
2. For each major deficiency observed make suitable recommendations through which the impact of the non-conformance may be remedied.
3. These recommendations may incorporate options for prescriptive solutions or performance-based solutions – though no performance solution(s) are included herein.

Please note that performance-based solutions may require the undertaking of a formal fire safety engineered assessment of the proposed works to ensure that compliance to the NCC has been achieved.

In all instances, the recommendations are designed to facilitate the upgrade of the premises to meet generally meet the applicable Objectives and Performance Requirements of the NCC.

1.2 BASIS OF REPORT

The content of this Report is based on the following Legislation:

- NCC 2022 Volume One – Building Code of Australia Class 2 to 9 Buildings (NCC).
- NSW Environmental Planning & Assessment Act 1979.
- NSW Environmental Planning & Assessment Regulation 2021.
- NSW Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

The content of this Report is based on the following texts and references:

- Australian Fire Engineering Guidelines (AFEG), 2021 Edition.
- Guide to the BCA 2022, ABCB.

The content of this Report is based on the following Documentation:

- BCA Audit Report for the subject existing development prepared by Certatude Pty Ltd, Rev 1.0 dated 19/07/2024 assessing the existing building against the National Construction Code Building Code of Australia Volume 1 (NCC).

1.3 EXCLUSIONS

This Report does NOT cover the following:

- A detailed NCC assessment of the subject development.
- Access for people with disabilities (Part D4 of the NCC).
- System or engineering design of any part of the subject development.
- Operational checks of fire safety equipment, verification of construction techniques, fire resistance levels or the witnessing of fire drills.
- Compliance or conformance audit for any fire safety system inside the subject development.
- Arson (other than as a source of initial ignition), multiple ignition sources, acts of terrorism.
- Protection of property (other than adjoining property).
- Business interruption or losses or personal or moral obligations of the owner / occupier.

- Occupational Health and Safety, and Work Cover Authority Regulations.
- Fire Safety Study, dangerous goods storage, or emergency planning for the subject development

1.4 REGULATORY FRAMEWORK

Compliance with the NCC is achieved by satisfying the Performance Requirements. Clause A2G1 of the NCC states that the Performance Requirements can be satisfied by:

1. *Performance Solution; or*
2. *Deemed-to-Satisfy Solution; or*
3. *a combination of (1) and (2).*

Clause A2G2(1) of the NCC states that a Performance Solution is achieved by demonstrating:

- (a) *compliance with all relevant Performance Requirements; or*
- (b) *the solution is at least equivalent to the Deemed-to-Satisfy Provisions,*

Clause A2G2(2) of the NCC states that a Performance Solution must be shown to comply with the relevant Performance Requirements through one or a combination of the following Assessment Methods:

- (a) *Evidence of suitability in accordance with Part A5 that shows the use of a material, product, plumbing and drainage product, form of construction or design meets the relevant Performance Requirements.*
- (b) *A Verification Method including the following -*
 - (i) *the Verification Methods in the NCC; or*
 - (ii) *Other Verification Methods, accepted by the appropriate authority that show compliance with the relevant Performance Requirements.*
- (c) *Expert judgment.*
- (d) *Comparison with the Deemed-to-Satisfy Provisions.*

Clause A2G2(3) of the NCC states Where a Performance Requirement is satisfied entirely by a Performance Solution, in order to comply with (1) the following method must be used to determine the Performance Requirement or Performance Requirements:

- (a) *Identify the relevant Performance Requirements from the Section or Part to which the Performance Solution applies.*
- (b) *Identify Performance Requirements from other Sections or Parts that are relevant to any aspects of the Performance Solution proposed or that are affected by the application of the Performance Solution.*

Clause A2G2(4) of the NCC states Where a Performance Solution is proposed to be satisfied by a Performance Solution, the following steps must be undertaken:

- (a) *Prepare a performance-based design brief in consultation with relevant stakeholders.*
- (b) *Carry out analysis, using one or more of the Assessment Methods listed in (2), as proposed by the performance-based design brief.*
- (c) *Evaluate results from (b) against the acceptance criteria in the performance-based design brief.*
- (d) *Prepare a final report that includes-*
 - (i) *All Performance Requirements and/or Deemed-to-Satisfy Provisions identified through A2G2(3) or A2G4(3) as applicable; and*
 - (ii) *Identification of all Assessment Methods used; and*
 - (iii) *Details of step (a) to (c); and*
 - (iv) *Confirmation that the Performance Requirement has been met; and*
 - (v) *Details of conditions or limitations, if any exist regarding the Performance Solution.*

2.0 DEVELOPMENT DESCRIPTION

2.1 GENERAL LAYOUT AND CONSTRUCTION

General

The existing building located at 117 Victoria Street Potts Point comprises a residential Class 2 building constructed circa 1960. The building comprises:

- Level A – Undercroft parking – Brougham Street
- Level B – residential entry from Brougham Street, residential SOUs
- Level C to E – residential SOUs (Brougham Street)
- Level F – undercroft parking (Victoria Street), residential SOUs, plant/ancillary spaces
- Level G – residential SOUs
- Level H – residential entry from Victoria Street, residential SOUs
- Level I – K – residential SOUs
- Level L – Roof – plant room, lift overrun

The site is bounded by existing residential developments to the north and south, Victoria Street to the east, and Brougham Street to the west.

2.2 NCC ASSESSMENT DATA

The relevant NCC Assessment Data for the subject development is summarised in Table 1.

Table 1: Relevant NCC Assessment Data

NCC Reference	NCC Assessment
Classification	Class 2 (residential units) Class 7a (car parking)
Rise in Storeys	12
No. of Levels Contained	12
Required Type of Construction Required	Type A
Effective Height	Greater than 25m

2.3 EXISTING FIRE SAFETY SYSTEMS

With reference to the current Fire Safety Schedule, the following fire safety systems are installed within the subject building:

- Automatic fire detection and alarm system: AS 1670.1-1986
- Building Occupant Warning System: BCA – Specification E2.2a (Clause 6) – no date or installation standard referenced.
- Emergency lighting: AS 2293.1-1998
- Exit signs: AS 2293.1-1998
- Fire alarm communication link: AS 4428.6-1997
- Fire hydrant system: Ordinance 71 & CA 17
- Fire hose reels: Ordinance 70 Part 27.2 Ministerial Spec 10 AS 2441-1981
- Portable fire extinguishers: AS 2444-2001
- Smoke alarms: AS 3786-1993

3.0 NCC COMPLIANCE MATTERS

3.1 GENERAL

The following is a summary of the major compliance items identified for the existing building against the following Sections of the NCC.

- Section C – Fire Resistance
- Section D – Egress
- Section E – Services and Equipment

3.2 NCC SECTION C – FIRE RESISTANCE

NCC Clause C2D2, Specification 5 – Fire-Resisting Construction

The building is noted to generally not comply with the required fire resistance levels in accordance with Type A construction and the relevant classifications under NCC Specification 5.

NCC Clause C2D12 – Bounding Construction

The walls and doorways into the laundry rooms on the residential levels have not been provided with a fire rating as required for bounding construction.

NCC Clause C2D11 – Fire Hazard Properties

The fire hazard properties of the following internal linings, materials and assemblies within the building must comply with Specification 7 of the NCC.

- Floor linings and floor coverings.
- Wall linings and ceiling linings.

It is unlikely that all lining materials within the building will achieve compliance with the relevant provisions contained within Specification 7 of the NCC.

NCC Clause C4D13, C4D15 – Openings for Service Installations

The existing service penetration protection is observed to be in disrepair and it is expected that the required FRLs will not be achieved, or will be unable to be determined.

3.3 NCC SECTION D – EGRESS

NCC Clauses D2D15 – Discharge from Exits

Multiple paths of travel from exit discharge points to the road that are blocked with locked gates. An unrestricted path of travel is required to be provided from all exits to the road.

NCC Clause D2D3 – Number of Exits

Single exits serve multiple areas of the building, noting that a building exceeding 25m effective height must be provided with not less than 2 exits throughout. Levels C to E and rooftop plant are provided with single exits.

NCC Clause D2D8, D2D4, D2D12, D3D5, C4D9 – Fire-Isolated Exits

The following compliance issues were observed in relation to the fire-isolated exits

- The fire-isolated exits are used for occupant circulation and comprised of stored materials within the stair core.
- There are currently multiple combustible materials located in the fire isolated stairways (floor linings, nosings, handrails and attachments) due to the stairways currently being used as circulation stairs.
- The fire-isolated exits contain openings (windows) on each storey that are directly exposed to openings in external walls of SOUs, which are not permitted within 3m, and must be protected when located within 6m. Openings are within 3m and no protection is provided.

- Egress widths are noted to currently achieve not less than 1m, however future provision for fire service risers (hydrants and sprinklers) as well as infrastructure (hydrant outlets and sprinkler control assemblies) will result in egress widths reduced to less than 1m.
- Due to the sloping nature of the site egress requires occupants to either travel to the road via steep driveway ramps or via connected rising and descending stairs discharging to Victoria Street Level. The rising and descending portions of the stairs are not appropriately separated.
- Fire-isolated discharge locations and paths of travel to road or open space do not comply with NCC Clause D2D12 and require occupants to travel past multiple unprotected openings in the external walls of the building, including SOU windows and openings to the undercroft car parks.
- The discharge of the western fire-isolated stair either discharges to the northern driveway, with the path of travel impeded by a steep ramp and locked gate, or discharges internally to the Victoria Street entry lobby. Both discharge locations do not comply.
- The lift motor room opens directly into a fire-isolated stair, in lieu of via an airlock. The door from the lift motor room encroaches into the clear width of the exit, rendering the exit blocked.

3.4 NCC SECTION E – SERVICES AND EQUIPMENT

NCC Clause E1D2 – Fire Hydrants

A fire hydrant system is required to be provided to serve a building having a total floor area greater than 500 m².

It was noted that the building is currently served by an Ordinance 71 hydrant system.

As the building has multiple entrances, the existing booster is not located within sight of the main entrance.

The fire hydrant booster is currently located perpendicular to the street and access to the booster is not a level surface (i.e. accessed via steep driveway). This does not meet the requirement of AS 2419.1-2021, or the operational requirements of Fire and Rescue NSW.

NCC Clause E1D5 – Automatic Sprinklers

The subject building exceeds an effective height of 25m and is not provided with an automatic sprinkler system. A sprinkler system in accordance with AS 2118.1-2017 or AS 2118.6-2012 is required to be installed throughout the building. Additional infrastructure including (but not limited to) fire service pumps, sprinkler alarm valves and fire bridge booster assembly are required to be installed.

NCC Clause E2D4 – Smoke Hazard Management (Stair Pressurisation)

Multiple fire-isolated stairs within the building serve a storey with effective height greater than 25m and are not provided with a stair pressurisation system in accordance with AS 1668.1. It is noted that the stairs open to external balcony areas, however these are observed to not strictly comply with NCC Clause D3D6 to grant a concession.

NCC Clause E2D5 – Smoke Hazard Management (Smoke Detection)

An automatic fire detection and alarm system is currently installed within the building, however noted to be to a superseded Standard. The system does not comply with current NCC and Australian Standard requirements.

It was noted during inspection that the existing system does not satisfy the current provisions of the NCC. Further, it is assumed that the existing air handling systems within the building do not shutdown upon activation of a smoke detection system.

Clause E3D5 – Emergency Lifts

The subject building, having an effective height exceeding 25m, is required to be provided with emergency lifts in accordance with Part E3 of the NCC. It is noted that no emergency lifts are provided. It is further noted that the current lift and shaft are undersized and will not meet the current requirements of the NCC.

Clause E4D9 – Emergency Warning and Intercom Systems

The subject building, having an effective height exceeding 25m, is required to be provided with an Emergency Warning and Intercom System in accordance with AS 1670.4-2018. The existing building occupant warning system does not meet the requirements of the NCC and AS 1670.

4.0 RECOMMENDATIONS

The below table is a summary of the above listed compliance issues and recommendations to achieve compliance.

Compliance Issue	Recommendation
NCC Clause C2D2, Specification 5 – Fire-Resisting Construction	It is recommended that the building be upgraded to comply with NCC Specification 5 and achieve the required FRLs. The existing building FRLs cannot be justified by Performance Solution.
NCC Clause C2D12 – Bounding Construction	It is recommended that the bounding construction be upgraded to comply with NCC Clause C2D12. The existing bounding construction cannot be justified by Performance Solution.
NCC Clause C2D11 – Fire Hazard Properties	<p>It is recommended that the existing linings be either:</p> <ol style="list-style-type: none"> 1. Tested to demonstrate compliance with NCC Clause C2D11 and Specification 7 2. Replaced with linings that comply with NCC Clause C2D11 and Specification 7 <p>It is expected that the existing linings will not comply. The existing linings cannot be justified by Performance Solution.</p>
NCC Clause C4D13, C4D15 – Openings for Service Installations	It is recommended that a passive fire consultant be engaged to assess the existing service penetration protections, however it is expected that the existing protection measures will not comply and require upgrade/replacement. Note also that all services will be required to be upgraded and as such new protection measures required to be installed. The existing protection measures cannot be justified by Performance Solution.
NCC Clauses D2D15 – Discharge from Exits	It is recommended that all paths of travel to the road be unimpeded by locked gates.
NCC Clause D2D3 – Number of Exits	A performance solution can be documented to permit the provision of a single exit from Levels C to E discharging to Brougham Street, subject to the fire-isolated exits achieving compliance (refer to below). Egress from the rooftop plant room can be addressed via Performance Solution.
NCC Clause D2D8, D2D4, D2D12, D3D5, C4D9 – Fire-Isolated Exits	The exiting fire-isolated exits are recommended to be upgraded to comply with the NCC. The existing discharge locations and exposure to unprotected openings (within the shaft and along the path of travel) cannot be justified by Performance Solution. The reduced egress width expected to be circa 650mm following installation of fire services infrastructure cannot be justified by Performance Solution. It is recommended that the existing stair cores be increased in size to accommodate services and achieve compliant egress widths.

Compliance Issue	Recommendation
NCC Clause E1D2 – Fire Hydrants	<p>The existing fire hydrant system must be upgraded to comply with AS 2419.1-2021.</p> <p>Refer to Fire and Rescue NSW position statement that states:</p> <p><i>“When the consent authority (e.g. Council) is assessing the adequacy of an existing fire hydrant system installed in accordance with the provisions of Ordinance 70 and Ministerial Specification 10 (or earlier), FRNSW recommend that the system be upgraded to meet the requirements of the current Australian Standard AS 2419.1 to facilitate the operational needs of FRNSW.”</i></p>
NCC Clause E1D5 – Automatic Sprinklers	<p>An automatic sprinkler system in accordance with AS 2118.1 or AS 2118.6 must be installed throughout the building. Omission of sprinklers from a residential building exceeding 25m effective height cannot be justified by Performance Solution, noting that NCC Clause E1D6 requires Class 2 buildings rise in storeys of 4 or more to be sprinkler-protected throughout.</p>
NCC Clause E2D4 – Smoke Hazard Management (Stair Pressurisation)	<p>A stair pressurisation system is recommended to be installed within all fire-isolated exits serving a storey with effective height exceeding 25m.</p>
NCC Clause E2D5 – Smoke Hazard Management (Smoke Detection)	<p>The smoke detection and alarm system is recommended to be upgraded to comply with AS 1670.1-2018 and AS 3786-2014</p>
Clause E3D5 – Emergency Lifts	<p>It is recommended that emergency lift(s) be installed to serve the building. The retention of the existing lift to serve as the required emergency lift cannot be supported by Performance Solution.</p>
Clause E4D9 – Emergency Warning and Intercom Systems	<p>It is recommended that the existing building occupant warning system be replaced or upgraded to comply with NCC Clause E4D9 and AS 1670.4-2018.</p>

5.0 CONCLUSION

As outlined in this Report, the existing building comprises significant fire safety deficiencies that do not comply with the current National Construction Code Building Code of Australia Volume 1 (NCC) or the applicable referenced Australian Standards. The above listed deficiencies largely cannot be assessed to comply with the NCC via a Performance Solution and it is recommended that the building and installed fire safety systems be upgraded and/or replaced as per the recommendations in Section 4.0 of this Report.

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19 July 2024

Mitchell Favaloro
Ceerose Pty Ltd

By email:
<Mitchell.Favaloro@ceerose.com.au>

Dear Mitchell,

Re. 117 Victoria St Potts Point – Structural Engineering Report
Our Ref. 5805

INTRODUCTION

M+G Consulting was engaged by Ceerose (the developer of No. 117 Victoria St) to inspect and provide a structural assessment of the existing building. The brief provided was to assess the possibility of retaining the existing structure and fabric of the building as part of refurbishing it, as an alternative to demolishing and constructing a new building.

This report is based on the available information provided (some original architectural drawings and a number of photographs received/taken), and our visual inspections which occurred over the period October 2023 – May 2024.

Our observations revealed a number of problems associated with the existing structure, which are described and discussed further below.

BUILDING DESCRIPTION, OBSERVATIONS AND COMMENTS

The site is of rectangular shape, oriented in the east-west direction, fronting Victoria St at the east, and Brougham St at the west. A significant fall, of more than 15m, is present from Victoria St side (east) to Brougham St side (west), which follows the geological rock profile. The site is currently occupied with an existing multistorey building, of brick and concrete construction, which is the subject of this report.

The building was constructed in 1960s. The floor plate is of an usual configuration, resembling an I - beam, with wider wings (flanges) along the east and west boundaries, and a narrow strip (stem) connecting them. The stair shafts and the lift shaft are located at

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the junction between the flanges with the stem, at both ends. This significantly weakens the diaphragm strength of the floor plate, as the stem is “necked” at the junction. As a consequence, the ability of the building shear walls to support the flange portions of the building is compromised, the east end and the west end would have “soft” lateral restraint, and the building would perform poorly in case of a significant seismic or wind event.

The western wing, against Brougham St, is particularly exposed to lateral movements, due to its height (11 storeys) and lack of twist restraint. A number of external short concrete struts against rock were observed along the north boundary. In case the original design intent was to provide some lateral support to this portion of the building, in our view these are more likely to have a detrimental rather than beneficial effect in an earthquake event. This support would have to rely on the rock mass being present beyond the boundary, which is an unsafe assumption.

The loadbearing system generally comprises concrete columns. However, numerous brick walls also appear to be loadbearing generally, which creates a hybrid system for the building. This old-style detailing typically results in cracking (which indeed is evident, throughout) due to incompatible materials and, more importantly (and contrary to the design intent), they impose substantial stiffness in the undesirable locations and directions. For example, although the stem portion, between the stair shafts, is adequately restrained laterally (as opposed to the flanges), the significant portion of the brick walls in the east-west direction in the stem portion of the building are terminated one level above the on-ground carpark level, which creates a soft storey in seismic terms.

The small size of the columns and the small thickness of slabs indicate that both are likely insufficient for the present-day requirements of the relevant structural standard for strength and fire resistance. In some places, where slab thickness is exposed, this is evident.

Probably the largest problem associated with the structure of the building is its durability. There is widespread cracking visible (and likely much more out of sight) throughout the building. Some of the cracking appears to be caused by incompatible materials and lack of articulation (brick swelling and concrete shrinking), but majority of the cracking and spalling of concrete is due to the reinforcement rusting (concrete cancer). This is present in all parts of the building, even in some internal areas. It would appear that some previous investigation (or more than one) was attempted in order to determine the extent of this problem, as reinforcing bars are exposed in many locations. All this reinforcement is substantially corroded.

It is known that the buildings of this age have low strength/quality, high permeability concrete, which offers low protection to embedded reinforcing steel. Additionally, concrete covers to the reinforcement from that period were inadequate in terms of protecting the reinforcement. All these problems typical for a building of this age are very prominent for this building.

It is sometimes possible to undertake some repairs to rectify the problems with concrete cancer, which are localized or not extensive. Any larger area affected by concrete cancer typically needs to be demolished and rebuilt.

For this building structure, considering the size of the building and the presence of spalling and cracking in practically every section of the building, such repairs would simply be impractical.

The typical design life of 50 years for this building is well and truly exceeded and, due to the widespread problems with the materials, no further significant life can be expected from the building structure. This will inevitably lead to safety issues in future and to gradual replacement or shutting down parts of the building. In fact, this is already under way in some places.

It is our view that, from the structural perspective, this building is practically beyond repair and, whilst not yet at the point where it is unsafe, it is entering that stage at present.

Notwithstanding significant durability problems with the structure, its original design and under-proportioned columns and slabs coupled with poor seismic robustness make it practically impossible to bring the building close to the present-day standards structural requirements.

Our recommendation is that the building be demolished, as it is well past both its design and repair time.

CONCLUSIONS

It is our opinion that:

- The existing building is in a very dilapidated condition, which is present in all areas of the building.
- The structural design and performance of the building is significantly below the present-day standards.
- It is not practically possible to implement repairs to the structure which would significantly improve its current condition.
- The building should be demolished, as it will gradually become a safety problem to its occupants and the community.

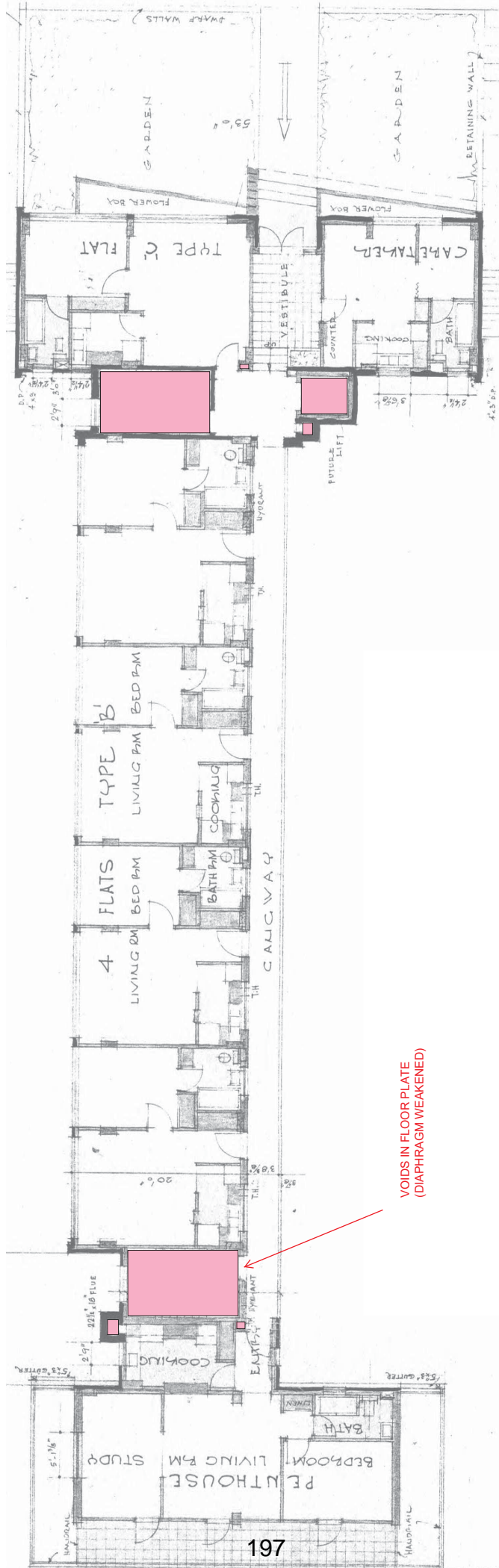
We trust this report sufficiently responds to the brief, and please do not hesitate to contact the undersigned should you have any questions in relation to this report.

Yours faithfully
M+G Consulting

Zlatko Gashi
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APPENDIX 1

TYPICAL FLOOR PLATE



VOIDS IN FLOOR PLATE
(DIAPHRAGM WEAKENED)

APPENDIX 2

SELECTED SITE PHOTOGRAPHS









































