



**TOWER 2, LEVEL 23  
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SYDNEY NSW 2000**

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21 November 2017

The General Manager  
City of Ryde  
Locked Bag 2069  
North Ryde NSW 1670

Attention: Tony Collier, Acting Senior Coordinator Major Developments Assessment  
Sent via email: [TCollier@ryde.nsw.gov.au](mailto:TCollier@ryde.nsw.gov.au)

Dear Tony,

## **LDA/2016/0395 – 25-27 EPPING ROAD, MACQUARIE PARK**

### **1. INTRODUCTION**

We write on behalf of Greenland (Sydney) Lachlan's Line Macquarie Park Development Pty Ltd (Applicant) in response to your correspondence via email dated 6 November 2017, with your preliminary assessment of the amended development application. The preliminary assessment of the proposed amendments to the development application DA in response to the SNPP Reasons for Deferral, and the submissions received to date, advised the Applicant that:

*"Following a review of the amendments, supporting documentation and the 25 submissions received at the end of the public exhibition period, Council is of the opinion that it cannot recommend approval of the amended scheme to the SNPP in its Supplementary Report.*

*The resulting impacts of the amended development (from the additional building height and gross floor area/floor space ratio) upon the residential land to the south (across Epping Road) and Bundara Reserve are considered to outweigh the minor net benefits gained in increasing the solar access to apartments (i.e. 0.7%) and open space areas (i.e. +/-5%) within the development as detailed in the tables below".*

In conclusion, your advice to the Applicant states that:

*"Council considers that a recommendation be made to the Panel that the amended scheme is not supported and that the scheme presented to the Panel at its previous meeting be approved".*

In response to these matters, we have prepared supplementary information to address the concerns of Council and the SNPP Reasons for Deferral, as follows:

- Further amended architectural drawings for two options, including floor plans and elevations and sections, which improve solar access to apartments and communal open space (Refer Attachment A);
- Solar Access Report, prepared by Steve King (Refer Attachment B);
- Design Statement by Turner Studio (Attachment C); and
- Responses to issues raised in the public submissions on the amended DA.

We also had the opportunity to meet with the SNPP members and Kim Holt, SNPP Secretariat on Wednesday, 15 November as we were concerned with the timing and sought to clarify information requested by the SNPP regarding the redesign options. The SNPP agreed to accept supplementary information from the Applicant and requested additional information be provided regarding approved gross floor area (GFA) under the concept approval SSD\_5093 issued by the Minister for Planning.

Council officers have indicated in the 6 November 2017 correspondence to the Applicant that it prefers the original DA due to: *"impacts of the amended development (from the additional building height and gross floor area/floor space ratio) upon the residential land to the south (across Epping Road) and Bundara Reserve"*.

The Applicant has prepared two options for the SNPP to consider, both which improve solar access to apartments and communal open space. The reason for providing amendments to the original DA and the amended DA is present two options, which address the concerns of the Council and the SNPP. The amended DA results in some minimal additional overshadowing of residential properties and public open spaces outside of the North Ryde Station Precinct, whilst the original DA does not have those external impacts.

The amendments are referred to as:

- Option 1 – Amendments to original DA; and
- Option 2 – Further Amendments to amended DA

Note: The solar access report at Attachment B prepared by Steve King refers to the amended DA as Option F, which is a reference from the to the earlier Solar Access Sensitivity Report, prepared in response to the SNPP Reasons for Deferral of 27 September 2017.

#### **Option 1 – Amendments to original DA**

The follow amendments to the original DA are proposed to improve solar access to residential units and communal open space:

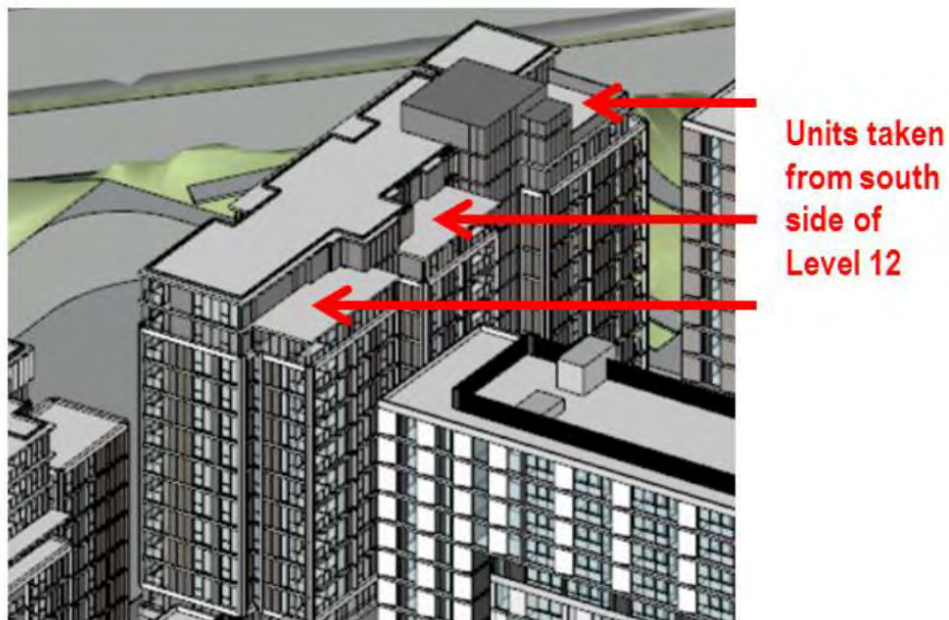
- Amend the layouts of 66 units in Building K Lot 105; and
- No change to the heights of buildings.

## Option 2 – Further amendments to amended DA

In addition to the changes proposed in the amended DA with the deletion of two floors from building J and K and additional of two floors to Buildings L3 and M, the following additional amendments are proposed to improve solar access to residential units and communal open space:

- Deletion of 3 units on the southern side of top level of Building K Lot 105 (refer Figure 1); and
- Amend the layouts of 66 units in Building K Lot 105.

Figure 1 – Amendments to top level of Building K Lot 105



The new stepped section of Building K as a result of deleting the 3 units on the top level of Building K reduces overshadowing of some apartments in Building M and Building L3, and increases solar access availability for communal open space.

The layout of a significant number of units in Building K, have been re-planned which has allowed those apartments to qualify for over two hours of sun on June 21. The layout changes involve reconfiguring the living rooms, balconies and bedrooms to provide more glazing along the building façade of Building K, which has had the effect of optimising solar access to living rooms and private open spaces to those units.

## 2. SOLAR ACCESS TO APARTMENTS AND COMMUNAL OPEN SPACE

### 2.1. INTRODUCTION

In response to concerns raised in relation to the performance of the amended DA against the solar access requirements in the Apartment Design Guide (ADG), the above amendments to the two options were analysed in terms of solar access to apartments and communal open space.

### 2.2. PREVIOUS SOLAR ACCESS SENSITIVITY STUDY 10 OCTOBER 2017

The SNPP Reasons for Deferral at the meeting of the 27 September 2017 stated that amended plans are required which optimise solar access both mid-winter and equinox to both units and the major communal open spaces.

In response to the SNPP Deferral Notice, Steve King provided a baseline analysis of a range of options for amendments to the heights of buildings to examine the sensitivity of the likely overall solar access performance to apartments/balconies and major communal open space. The solar access sensitivity study, dated 17 October 2017 was submitted with the amended DA.

The analysis concentrated on a range of options for redistributing building massing, consistent with constraints imposed by the existing lot subdivision. The choice of options analysed was further narrowed by preliminary inferences from the current full 3D digital model, as to the likely benefit of varying different building heights.

The options considered in the solar access sensitivity analysis are described in the following table:

|                 | <b>Building M</b> | <b>Building J</b> | <b>Building K</b> |
|-----------------|-------------------|-------------------|-------------------|
| <b>Option A</b> | Added 2 levels    | Delete 1 level    | Delete 2 level    |
| <b>Option B</b> | Added 3 levels    | Delete 2 levels   | Delete 2 level    |
| <b>Option C</b> | Added 4 levels    | Delete 2 levels   | Delete 3 levels   |
| <b>Option D</b> | Added 6 levels    | Delete 2 levels   | Delete 5 levels   |

Based on this initial comparison of four options, the redistribution of GFA between buildings was further considered, having regard to the overshadowing impacts on public open space and residential properties outside of the precinct.

After discussions with Council officers, the Amended DA (Option F) was prepared as the preferred as this option minimized off-site overshadowing impacts on public open spaces and residential dwellings outside the precinct from the additional height of Building M and L3.

|                 | <b>Building M</b> | <b>Building L3</b> | <b>Building J</b> | <b>Building K</b> |
|-----------------|-------------------|--------------------|-------------------|-------------------|
| <b>Option F</b> | Added 2 Levels    | Added 2 Levels     | Deleted 2 Levels  | Deleted 2 Levels  |



The outcomes of the detailed solar compliance analysis for apartments/balconies and communal open space of the above options and preferred option by Steve King is summarised below:

#### Apartment solar access

The sensitivity study demonstrated that building massing variations for the overall site produce small improvement of overall apartment solar access.

Steve King found that with the significant changes in the heights of Buildings M, J and K as the options progress from A to D, there is approximately a 2% change in the overall baseline compliance with the ADG. Solar access requirements for apartments. When the range of additional heights for Building M was further constrained to limit 'off site' overshadowing impacts, the available improvement in solar access for apartments was effectively no more than 1% (i.e. Amended DA based on Option F).

#### Communal open space

Steve King also provided the following observations with respect to the impact on winter sun (21 June) in the communal open spaces for the options considered:

- Reduction in height of Building J, makes little difference to sun in the 'western' courtyard, and has no influence on other major common open spaces; and
- Reduction in height of Building K, makes significant difference to sun in the 'eastern' courtyard, and introduces sun between 11:30am and 1:30pm into THE southern portion of plaza between Buildings L3 and M. Options A and D, progressively increase the amount of solar access to those communal open spaces.

## 2.3. IMPROVEMENTS IN SOLAR ACCESS TO APARTMENTS

In response to Council officer concerns with the adequacy of the improvements to solar access to apartments and communal open space, amendments described in Section 2 to both the original DA scheme and the Amended DA scheme have been made result in improvements to solar access to apartment living rooms and private open space at midwinter (21 June) and at the Equinox (21 March and 21 September). **Table 1** provides a summary of the results.

**Table 1 – 21 June and Equinox solar access**

|                       | DA Scheme    |              | Preferred Option F |                  |
|-----------------------|--------------|--------------|--------------------|------------------|
|                       | Previous     | Improved     | Previous           | Further improved |
| <b>Winter June 21</b> | <b>47.0%</b> | <b>54.4%</b> | <b>47.4%</b>       | <b>56.8%</b>     |
| Equinox Sep 21        | 15.4%        | 24.3%        | 11.9%              | 20.0%            |

## 2.4. IMPROVEMENTS IN SOLAR ACCESS TO COMMUNAL OPEN SPACE

The amendments described in Section 2 to both the original DA scheme and the Amended DA scheme, will result in improvements to solar access to areas of major communal open space at midwinter (21 June) and at the Equinox (21 March and 21 September).

The tables provide two (2) columns “A” and “B” for both options, which represent solar access to the following communal open spaces:

- A: Conventional communal open space, potentially securable; and
- B: Publicly accessible communal open space.

These areas of communal open space are shown in Figure 2 in the Solar Access Report at Attachment B.

### 2.4.1. Mid-winter

The Amended DA scheme presents further small but key improvements in solar access to communal open space, when compared to the current DA scheme. Steve King’s analysis of the design amendments identifies that the introduction of a stepped section at the top of Building K further increases the sunny area which transits the front of the cafes/shops at the base of Building M in the publicly accessible Plaza.

**Table 2** summarizes the winter solar access for communal open spaces for the ‘Current DA’ and ‘further improved Option F’ (Amended DA) schemes.

**Table 2 – Summary of winter solar access for Current DA and Option F (Amended DA)**

|      | WINTER     |       |                              |        |
|------|------------|-------|------------------------------|--------|
|      | CURRENT DA |       | FURTHER IMPROVED<br>OPTION F |        |
|      | A          | B     | A                            | B      |
| 0900 | 10%        | 65%*  | 10%                          | 65%*   |
| 0930 | <10%       | 75%   | <10%                         | 75%    |
| 1000 | <10%       | 75%   | <10%                         | 75%    |
| 1030 | 15%        | 60%   | <25%                         | 60%    |
| 1100 | 25%        | 30%   | 35%                          | 30%    |
| 1130 | >35%       | 25%   | >35%                         | 25%**  |
| 1200 | 20%        | 15%   | 20%                          | 15%**  |
| 1230 | 15%        | <15%  | 15%                          | <15%** |
| 1300 | 15%        | <10%  | 15%                          | <10%** |
| 1330 | <10%       | <5%   | <10%                         | <5%**  |
| 1400 |            | <5%   |                              | <10%** |
| 1430 |            | <5%** |                              | 10%**  |
| 1500 |            | <5%** |                              | <5%**  |

\* Plaza area >90%

\*\* Moving patch of additional sun to two shopfronts on south edge of plaza

## 2.4.2. Equinox

The higher sun angles at the Equinox assure that communal open space is subject to much less shadowing by the buildings, for extended periods in the morning and the middle of the day. Steve King's analysis at the Equinox shows that all the communal open spaces are exposed to direct sun for periods well in excess of 2 hours, and for well in excess of 50% of their area. Differences between the Current DA and further improved Option F (amended DA) schemes are minor and almost negligible. **Table 3** records the proportion of the sunlit ground plane of the communal open spaces at the Equinox.

**Table 3 – Equinox sun exposure at ground plane of communal open spaces**

|      | EQUINOX    |      |                   |      |
|------|------------|------|-------------------|------|
|      | CURRENT DA |      | IMPROVED OPTION F |      |
|      | A          | B    | A                 | B    |
| 900  | 60%        | 65%* | 70%               | 65%* |
| 930  | 70%        | 65%* | 75%               | 65%* |
| 1000 | 75%        | 80%* | 80%               | 80%* |
| 1030 | 85%        | 90%* | 90%               | 90%* |
| 1100 | 85%        | 85%  | 90%               | 85%  |
| 1130 | 75%        | 75%  | 75%               | 70%  |
| 1200 | 60%        | 55%  | 60%               | 50%  |
| 1230 | 35%        | 30%  | 35%               | 25%  |
| 1300 | <10%       | <10% | <10%              | <10% |
| 1330 | <5%        | <5%  | <5%               | <5%  |
| 1400 |            |      |                   |      |
| 1430 |            |      |                   |      |
| 1500 |            |      |                   |      |

\* Plaza area >90%

### **3. DEVELOPMENT CONSENT HISTORY**

#### **3.1. SSD\_5093 – STAGED DEVELOPMENT APPLICATION**

A State Significant Development Application (SSD\_5093) for the staged development under Section 83B of the EP&A Act 1979, of the North Ryde Station Precinct - M2 Site was approved by the Delegate of the Minister for Planning in March 2015. The approval comprises a concept approval for:

- Subdivision of the site into 12 development lots, 5 public open space lots and 2 public road lots;
- Allocation of a maximum gross floor area to each of the development lots (total of 238,919m<sup>2</sup> across the site plus an additional 2,500m<sup>2</sup> to Lot 104 for a community facility); and
- Infrastructure, civil works and landscaping.

As well as Stage 1 development works in the following phases:

- Phase 1 - Site preparation works including demolition, remediation and rehabilitation, bulk earth works;
- Phase 2A – Super-lot subdivision to create 4 public roads and a future public road lot; five public reserve lots; three future development lots and two super-lots;
- Phase 2B -Civil and public domain works including road and intersection construction; open space establishment and embellishment, pedestrian pathways and cycle-ways, drainage, public domain works and services infrastructure
- Phase 3 - Subdivision to create 8 development lots; and
- Phase 4 - Construction of a pedestrian bridge over Delhi Road.

Condition A8 limits the maximum GFA for future developments on the site to be consistent with the Concept Proposal, as follows:

#### MAXIMUM GROSS FLOOR AREA (GFA)

A8. The maximum GFA for future developments on the site shall be consistent with the Concept Proposal for each development allotment as detailed below:

| Development Lot | Maximum GFA   |
|-----------------|---|
| Lot 104:        | 49,384m <sup>2</sup> +2,500m <sup>2</sup> community GFA |
| Lot 105:        | 24,136m <sup>2</sup>                                    |
| Lot 107:        | 4,332m <sup>2</sup>                                     |
| Lot 201:        | 42,949m <sup>2</sup>                                    |
| Lot 202:        | 25,626m <sup>2</sup>                                    |
| Lot 203:        | 28,468m <sup>2</sup>                                    |
| Lot 204:        | 15,764m <sup>2</sup>                                    |
| Lot 205:        | 29,210m <sup>2</sup>                                    |
| Lot 206:        | 5,413m <sup>2</sup>                                     |
| Lot 207:        | 6883m <sup>2</sup>                                      |
| Lot 208:        | 6,754m <sup>2</sup>                                     |

The following GFA allocation was approved for Lots 104 and 105:

- Lot 104: 49,384m<sup>2</sup> +2500m<sup>2</sup> community GFA
- Lot 105: 24,136m<sup>2</sup>

A redistribution of GFA is proposed in the amended DA in response to the SNPP Reasons for Deferral following the SNPP meeting of 27 September 2017, as follows:

- Reduction in the height of Building J Lot 105 by 2 full levels, with the deletion of Levels 13 and 15;
- Reduction in the height of Building Lot 105 by 2 full levels, with the deletion of Levels 12 and 13;
- Deletion of three (3) apartments form the top level of Building K Lot 105;
- Increase in the height of Building M Lot 104 by 2 full levels; and
- Increase in the height of Building L3 Lot 104 by 2 full levels.

The GFA calculations prepared by Turner Studio Architects are included in Table 4 and Table 5.

The redistribution of floor space from Lot 105 to 104 is intended to improve solar access to apartments and communal open space on Lot 104, whilst maintaining the architectural intent of the building floor plates and for buildability and construction efficiency.

**Table 4 – GFA comparison between original DA, amended DA and further amended DA**

|                | A – SSD_5093 (sqm) | B - Original DA (sqm) | C - Amended DA (sqm)        | Difference (sqm) (B-C) |
|----------------|--------------------|-----------------------|-----------------------------|------------------------|
| <b>Lot 104</b> |                    |                       |                             |                        |
| Retail         | 49,384             | 5200                  | 5200                        |                        |
| Residential    |                    | 44,184                | 47,346                      | 3162                   |
| Community      | 2,500              | 2,500                 | 2500                        |                        |
| <b>Lot 105</b> |                    |                       |                             |                        |
| Retail         | 24,136             | 766                   | 766                         |                        |
| Residential    |                    | 23,368                | 20,206                      | -3162                  |
| <b>Total</b>   | <b>76,020</b>      | <b>77,962</b>         | <b>76018 + 1944 = 77962</b> | <b>0</b>               |

Note: Excess parking (1,944m<sup>2</sup>) is added to the DA GFA as supported by City of Ryde Council in the original Assessment Report.

**Table 5 – Comparison between SSD\_5093, Original DA and Amended DA GFA**

|              | A – SSD Approval | B – Original DA | C – Amended DA | Difference (B - C) |
|--------------|------------------|-----------------|----------------|--------------------|
| Lot 104      | 51,884           | 53,828          | 56990          | 3162               |
| Lot 105      | 24,136           | 24,134          | 20972          | -3162              |
| <b>Total</b> | <b>76,020</b>    | <b>77,962</b>   | <b>77,962</b>  | <b>0</b>           |

In redistributing of GFA from Lot 105 to Lot 104 to improve solar access to apartments and communal open space on Lot 104, no additional floor space across both development lots is proposed, when compared to the total GFA allocation for both lots in the staged development consent SSD\_5093.

The excessive parking (1,944m<sup>2</sup>) was supported by City of Ryde Council in the original Assessment Report. The Clause 4.6 Request for the original DA remains part of the development application for both options presented in this supplementary information.

## **4. RESPONSE TO SUBMISSIONS**

### **4.1. INTRODUCTION**

A total of 25 public submissions, many of which form letters were received by Council during the notification period for the amended DA. Issues raised in the submissions were, as follows:

- Overshadowing of residential properties
- Loss of privacy
- Wind tunnel effects

Each of these matters are addressed in detail below:

### **4.2. OVERSHADOWING OF RESIDENTIAL PROPERTIES IN MORSHEAD STREET**

Some of the submissions received by Council from properties in Morshead Street raised concerns generally with additional overshadowing and some raised concerns specifically in relation to overshadowing the roofs of dwelling houses affecting the cost effectiveness of new or additional solar panels.

The additional floor space and height proposed in the amended DA for Buildings L3 and M results in minor additional overshadowing of the rear of some of the properties in Morshead Street between 9am and 9.30am in the morning. Shadow diagrams provided with this submission at Appendix A shows overshadowing of the rear private open space of the properties at 37, 39, 47 and 49 Morshead Street between 9.00am and 9.08am.

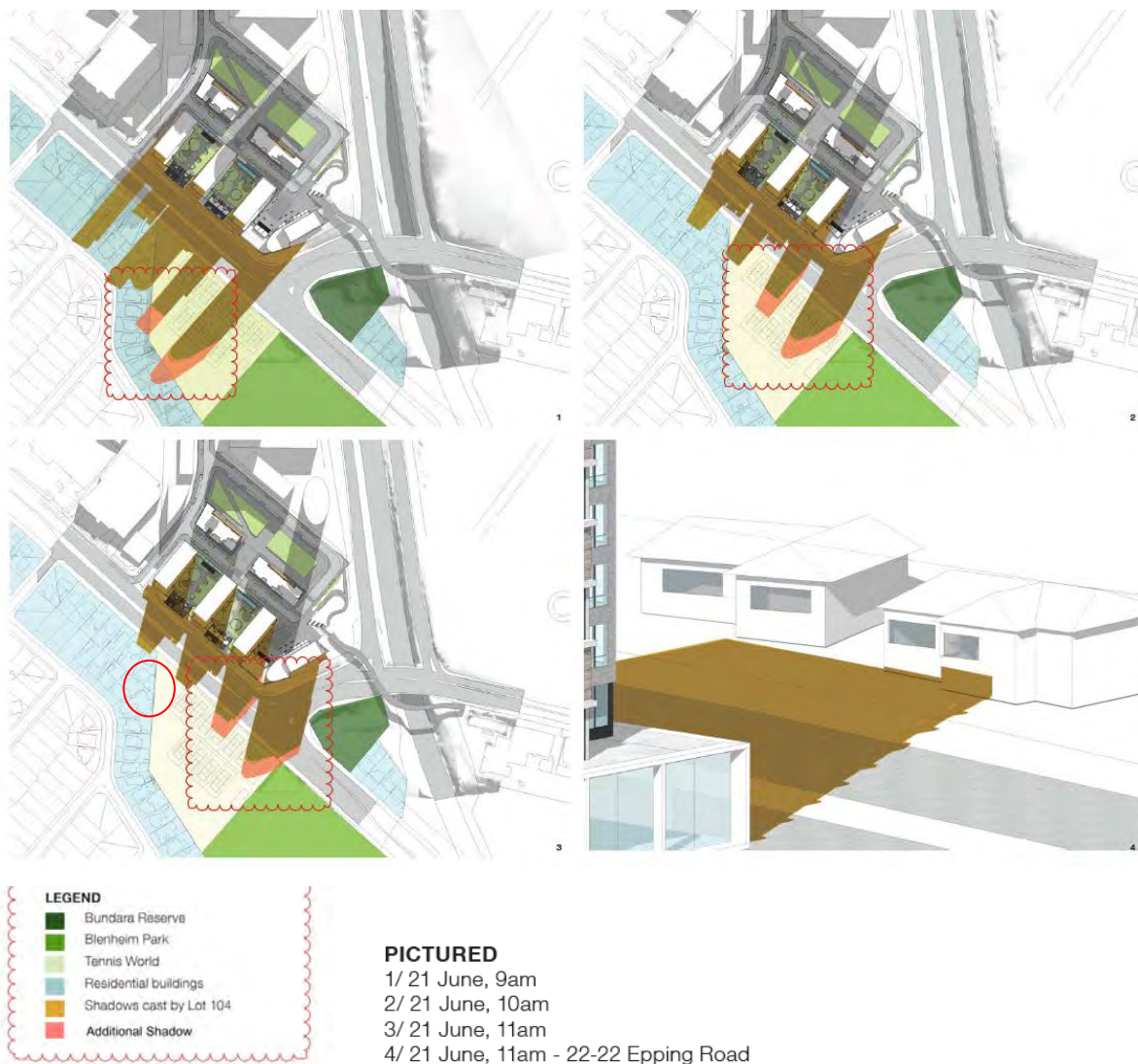
The North Ryde Station Precinct Development Control Plan provides controls for overshadowing of residential properties outside of the North Ryde Station Precinct, as follows:

*5.6(5). No overshadowing of residential lots outside of the Precinct is to occur after 11 am on June 21.*

Figure 2 provides shadow diagrams of the amended DA between 9am and 11am, 21 June.



**Figure 2 – Shadow diagrams June 21 9pm, 10am, 11am, Turner Studio**



The residential properties in Morshead Road, which are overshadowed are as follows:

| Time in shadow, June 21 | Morsehead Street Properties with additional shadow, June 21 |        |        |        |
|-------------------------|---|--------|--------|--------|
|                         | No. 37  | No. 39 | No. 47 | No. 49 |
| 9.00 am                 | Yes   | Yes    | Yes    | Yes    |
| 9.05 am                 | Yes   | Yes    | No     | Yes    |
| 9.08 am                 | Yes   | No     | No     | No     |

The detailed shadow diagrams show that the additional shadows between 9.00am and 9.08am, occurs in the rear private open space of these properties and does not impact the roofs of the dwellings. The additional shadows between 9.00a and 9.08am, 21 June do not take into account any of the substantial trees all along the boundary line between the houses and Tennis World. In addition, the shadows cast are based on 1.8m high fences when in reality the fences of a number of houses are 2.3m high with taller hedges behind.

Some of the submissions raised concerns with overshadowing of Tennis World. The North Ryde Station Precinct DCP does not specifically control overshadowing of the Tennis World Site. Notwithstanding this, the shadows cast by the proposed development and additional overshadowing for the amended DA, show that shadows cast over the Tennis World occur between 9am and approximately 12.00am, 21 June. After approximately 12.00am, the proposed shadows move to Epping Road.

**Figure 4 – Shadow diagram 9.00am, 21 June**



Figure 5 - Shadow diagram 9.05am, 21 June



Figure 3 - Shadow diagram 9.08am, 21 June





### 4.3. LOSS OF PRIVACY

Concerns were raised in some of the submissions received by Council in relation to loss of privacy as a result of the additional height and floor space in Buildings L3 and M in the amended DA.

The properties in Morshead Road are located between 80 metres and 150 metres from Bulling's L3 and M, and separated by the Epping Road and Tennis World. Dense vegetation and tall trees are located along the boundary line of these dwellings with Tennis World. High boundaries fences and hedges existing on some of the dwelling house properties.

The additional height and dwellings for Buildings L3 and M will not have a significant adverse impact on the privacy of those dwellings in Morshead Street, North Ryde. The separation distances, and existing vegetation, fencing and screen landscaping mitigates overlooking opportunities from the proposed additional dwellings in Buildings L3 and M.

**Figure 3 – Vegetation along the boundary line of Tennis World and the residential properties fronting Morshead Road**



#### **4.4. WIND ENVIRONMENT IMPACTS AS A RESULT OF INCREASED HEIGHT OF BUILDINGS M AND L3**

A number of the submissions received on the amended development application from properties in Morshead Street raise concerns with the potential wind tunnel effects on residents living between Buildings L3 and M on Lot 104. The wind impacts as a result of the additional levels to buildings L3 and M and have been taken into consideration by Windtech in preparing desktop wind environment studies for Lots 104 and 105 developments and a wind tunnel study and provided to Council on 6 November 2017.

The results of the Wind Tunnel Study indicate that treatments are required for certain locations to achieve the desired wind speed criteria for the pedestrian comfort and safety. The recommended treatments to be included to the proposed development are summarised as follows:

- Retention of the proposed tree planting scheme on Ground Level along Lots 104, 105 and the future park outlined in the latest architectural drawings.
- Additional densely foliating trees capable of growing to a height of at least 4m with a canopy width of at least 4m on Ground Level along Lots 104 and 105. If immature trees are initially planted, the inclusion of porous screens around these tree plantings is recommended to provide some wind mitigation while the trees develop and also provide some protection as the trees establish.
- The inclusion of portable screening along the north-eastern corner of Block L3 of Lot 104. This treatment will only be required if this space is to be used as a seating area.
- The inclusion of densely foliating trees capable of growing to a height of at least 4m with a canopy width of at least 4m on Level 1 of Lot 104.
- The inclusion of strategic hedge planting on the north-eastern corner of the Level 1 communal area between Blocks L1 and L2 of Lot 104. These should be densely foliating and be capable of growing to a height of 1.5m.
- The inclusion of full height impermeable screens or operable louvres on the north-western corner balconies of Building J of Lot 105.
- The inclusion of impermeable balustrades on the north-western corner balconies of Building K of Lot 105.

The Wind Tunnel Study concludes that: *“With the inclusion of these suggested treatments, it is expected that wind conditions for all outdoor trafficable areas within and around the development will be suitable for their intended uses”.*

## **4.5. NON-COMPLIANCE WITH HEIGHT OF BUILDING STANDARD**

Submissions received on the amended DA raise concerns with the non-compliance of Building M at 63.2 metres, which is above the maximum 57 metre height of building standard.

A Clause 4.6 submission for the exception to the 57 metre height of building standard was submitted with the amended development application. The Clause 4.6 Request provides an assessment of the exception against the relevant provisions of the Ryde LEP. In summary, the exception to the standard is well founded, as the amendments to the heights of buildings have been as a result of redistribution of floor space from Lot 105 to Lot 104 buildings, to improve solar access to apartments and communal open space.

## **5. CONCLUSION**

The supplementary information provided in this letter and attachments is provided to Council and the SNPP in response to correspondence received from Council officers on 6 November 2017, which indicated a preference for the original DA, over the amended DA. Council officers consider the external impacts as a result of the increased heights of Buildings M and L3 Lot 104 introduced in the amended DA, are not outweighed by the improvements to the solar access to apartment and communal open space.

We have also provided a response to the issues raised in submissions received by Council on the amended DA in relation to overshadowing, loss of privacy, height of buildings, and wind impacts.

Two options have been prepared for this supplementary information, which include further amendments to improve solar access to apartments and communal open space, which are described as follows:

### **Option 1 – Amendments to Original DA**

The following amendments to the original DA are proposed to improve solar access to residential units and communal open space:

- Amend the layouts of 66 units in Building K Lot 105; and
- No change to the heights of buildings.

The effect of the unit layout improvements described above is now assessed by Steve King to achieve 54.4%, an improvement of 7.4% of the total overall units proposed. An improved result also occurs at the Equinox, from 15.4% to 24.3%.

Minor improvements to solar access to communal open space will occur as a result of the amendments to apartment layouts for the original DA option, which does not address the SNPP Reason for Deferral of 27 September 2017.



## Option 2 – Further amendments to Amended DA

In addition to the changes proposed in the amended DA with the deletion of two floors from building J and K and additional of two floors to Buildings L3 and M, the following additional amendments are proposed to improve solar access to residential units and communal open space:

- Deletion of 3 units on the southern side of top level of Building K Lot 105; and
- Amend the layouts of 66 units in Building K, Lot 105.

The cumulative effect of the massing changes and unit layout improvements described above is now assessed by Steve King to achieve 56.8%, an improvement of 9.4% of the total overall units proposed. An improved result also occurs at the Equinox, from 11.9% to 20.0%.

The further amended proposal would deliver a more positive solar access outcome to communal open spaces than the option of amending the original DA, due to the deletion of two levels from Buildings J and K Lot 105.

The further improvements to solar access to apartments and communal open space are considered to outweigh the minor external overshadowing of residential properties and public open spaces, privacy and wind impacts as a result of the additional heights. The exception to the Height of Buildings under Clause 4.3 of the Ryde LEP is considered to be acceptable.

We request that Council officers consider the supplementary information provided in this letter and attachments, and provide a further supplementary assessment to the SNPP, addressing the improvements to the solar access to apartments and communal open space, and responses to concerns raised in public submissions.

If you have any questions or require any further information please do not hesitate to contact me on 8233 9953.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Murray Donaldson".

Murray Donaldson, Director

Enc.

Attachment A – Amended Architectural Drawings for Option A – Amendments to Original DA and Option B – Further Amendments to Amended DA

Attachment B – Solar Access Report prepared by Dr Steve King

Attachment B – Design Statement, prepared by Turner Studio





## **ATTACHMENT A – AMENDED ARCHITECTURAL DRAWINGS**

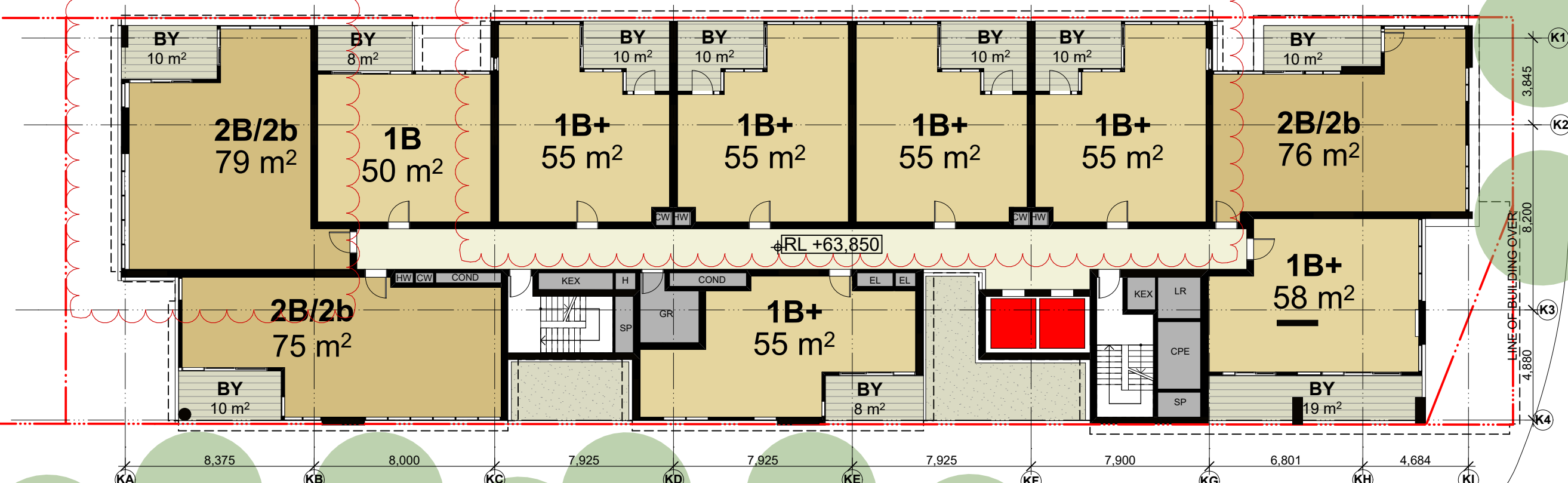


## **OPTION A – AMENDMENTS TO ORIGINAL DA**

BUILDING J



BUILDING K



LOT 104

NOTES  
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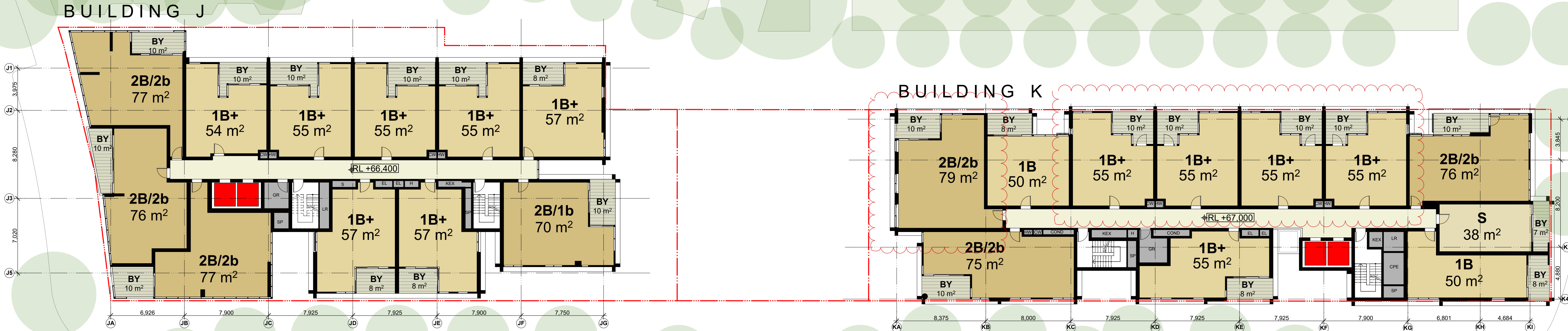
| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |  |  |  |  |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**  
Drawing Title  
**Block Plans**

| Rev. | Date     | By | Approved | Revision Notes            | Project No.        | 15039      | Drawn by | North |
|------|----------|----|----------|---------------------------|--------------------|------------|----------|-------|
| J    | 20.11.17 | KD |          | APARTMENT LAYOUTS AMENDED |                    |            | SM       |       |
|      |          |    |          | Scale                     | 1:200 @A1, 50% @A3 |            |          |       |
|      |          |    |          | Status                    | For Information    | DA-110-001 | Rev      | J     |

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Level 02 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans  
Level 02 Block Plan**

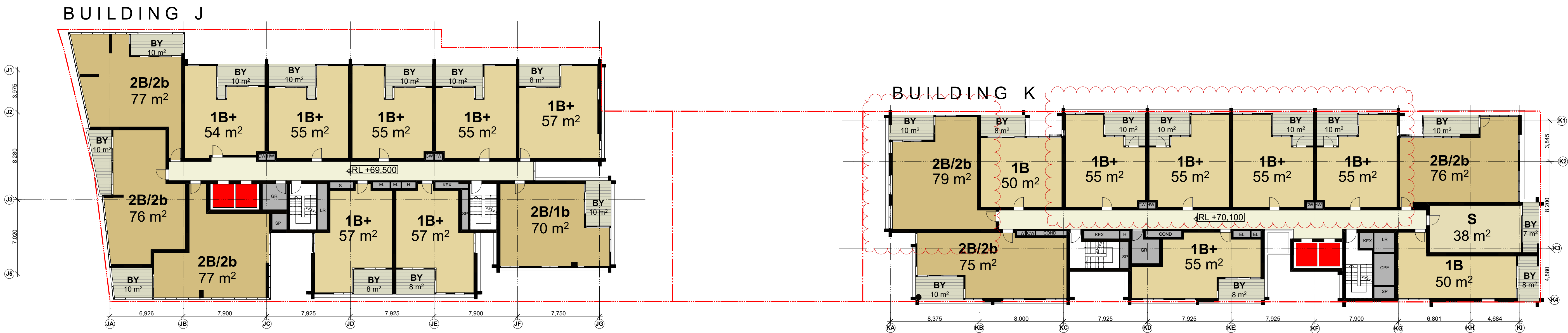
| Rev.                        | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|-----------------------------|----------|----|-------|---------------------------|-------------|----------|-------|
| J                           | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | North |
| Scale<br>1:200 @A1, 50% @A3 |          |    |       |                           | Dwg No.     | Rev      |       |
| Status<br>For Information   |          |    |       |                           | DA-110-002  | J        |       |

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# Level 03 Block Plan




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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

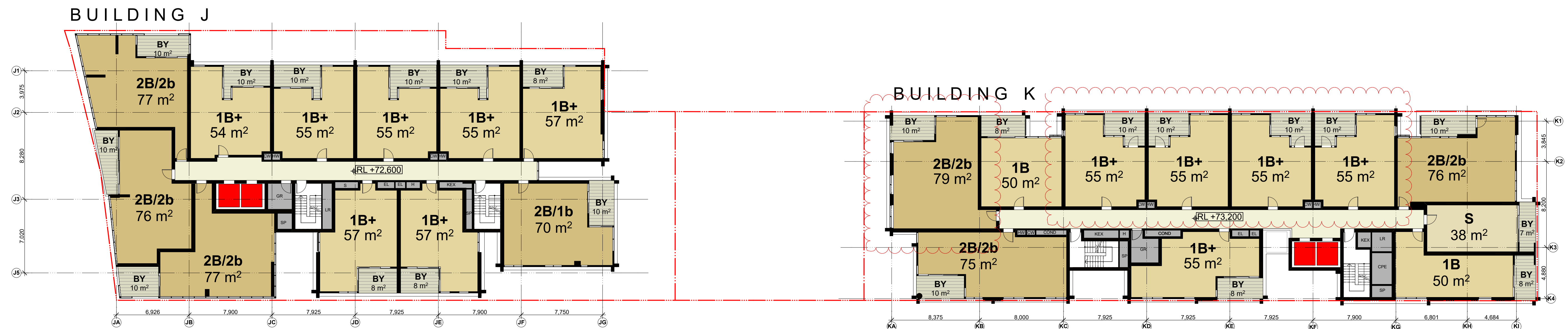
Drawing Title  
**Block Plans  
Level 03 Block Plan**

|                    |          |             |                           |  |          |  |   |
|--------------------|----------|-------------|---------------------------|--|----------|--|---|
| J                  | 20.11.17 | KD          | APARTMENT LAYOUTS AMENDED |  |          |  |   |
| Rev.               | Date     | Approved by | Revision Notes            |  |          |  |   |
| Scale              |          |             | Project No.               |  | Drawn by |  | North   |
| 1:200 @A1, 50% @A3 |          |             | 15039                     |  | SM       |  |  |
| Status             |          |             | Dwg No.                   |  | Rev      |  |   |
| For Information    |          |             | DA-110-003                |  | J        |  |   |

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# Level 04 Block Plan



LOT 104

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| LEGEND            |                  |           |                     |            |                    |           |           |            |                      |
|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

Project Title  
**LACHLAN'S LINE**  
NORTH RYDE

Drawing Title

**Block Plans**

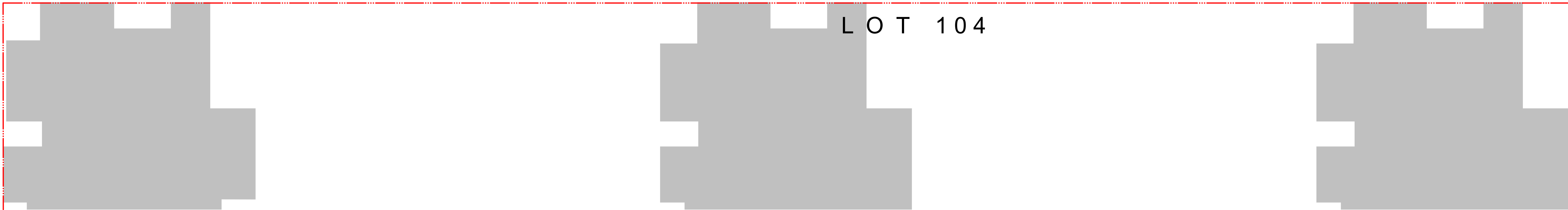
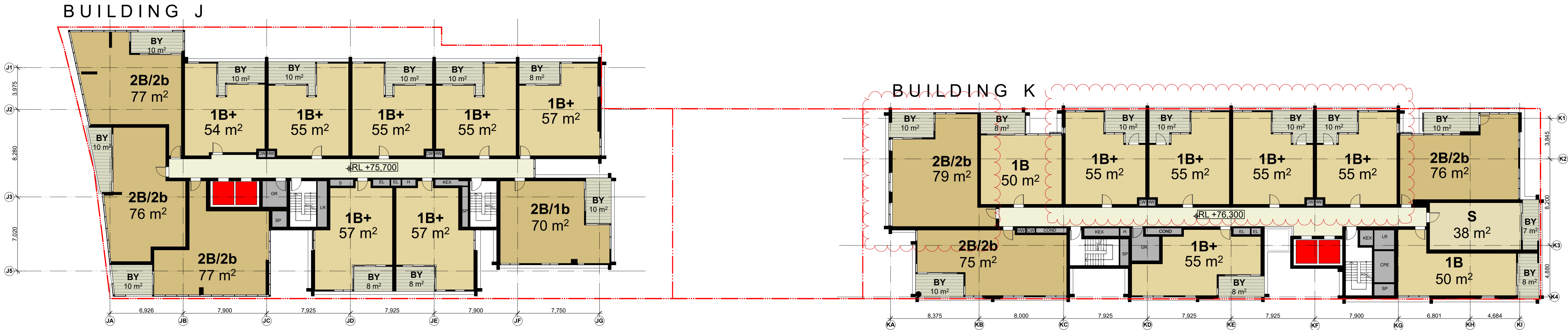
**Level 04 Block Plan**

| J<br>Rev.          | 20.11.17<br>Date | KD<br>Approved by | APARTMENT LAYOUTS AMENDED<br>Revision Notes |            | Drawn by | North   |
|--------------------|------------------|-------------------|---|------------|----------|---|
| Scale              |                  |                   | Project No.                                 | 15039      | SM       |  |
| 1:200 @A1, 50% @A3 |                  |                   | Dwg No.                                     | DA-110-004 | Rev      |   |
| Status             |                  |                   |   |            | J        |   |

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Level 05 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans  
Level 05 Block Plan**

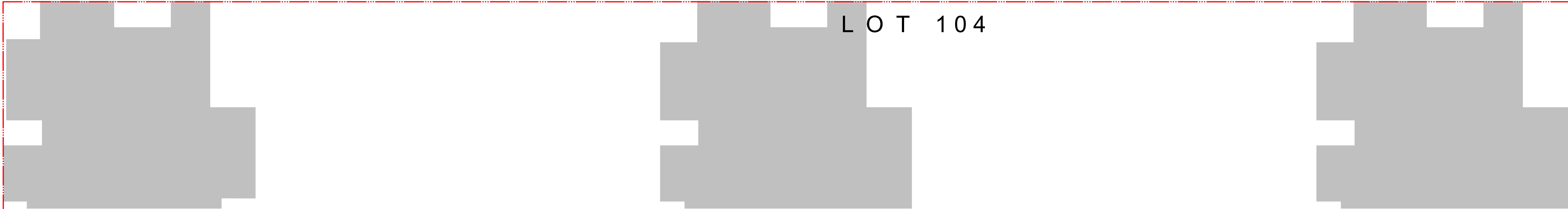
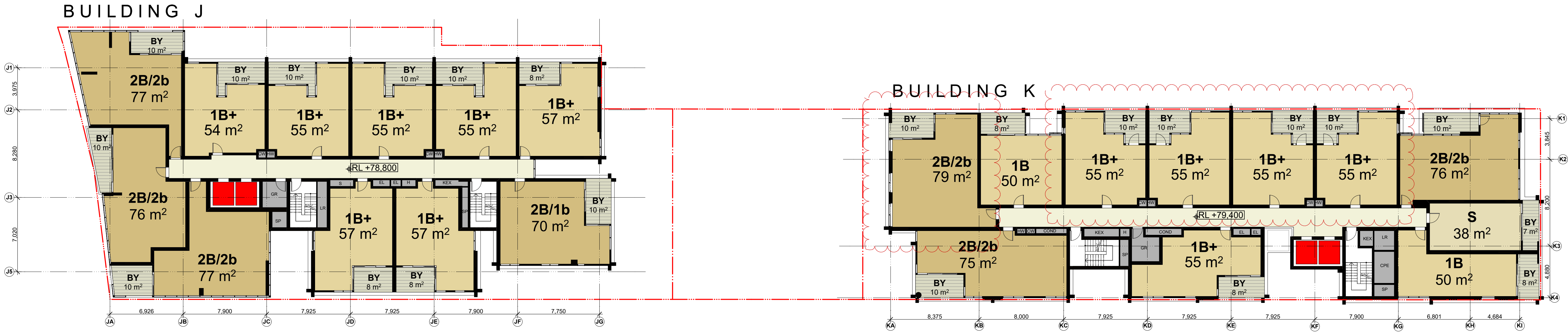
| Rev.   | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|--------|----------|----|-------|---------------------------|-------------|----------|-------|
| J      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | North |
| Scale  |          |    |       | 1:200 @A1, 50% @A3        | Dwg No.     | Rev      | J     |
| Status |          |    |       | For Information           | DA-110-005  |          |       |

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Level 06 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

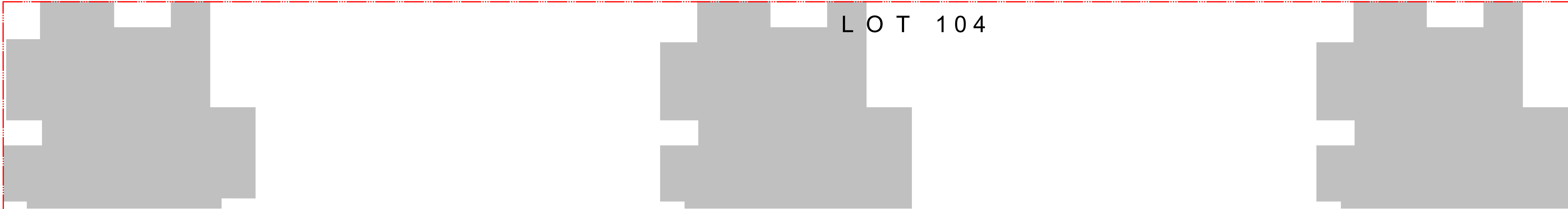
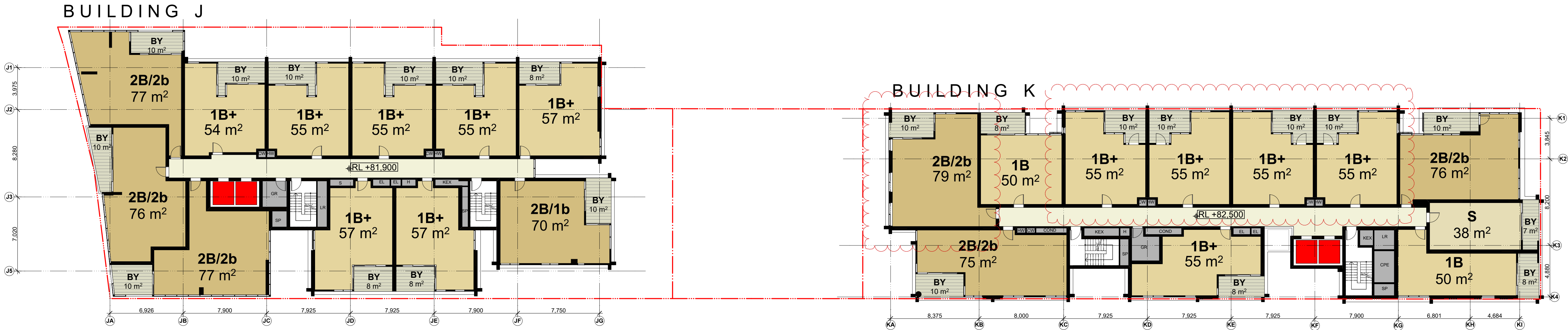
Drawing Title  
**Block Plans  
Level 06 Block Plan**

| Rev.   | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|--------|----------|----|-------|---------------------------|-------------|----------|-------|
| J      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | North |
| Scale  |          |    |       | 1:200 @A1, 50% @A3        | Dwg No.     | Rev      |       |
| Status |          |    |       | For Information           | DA-110-006  | J        |       |

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# Level 07 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

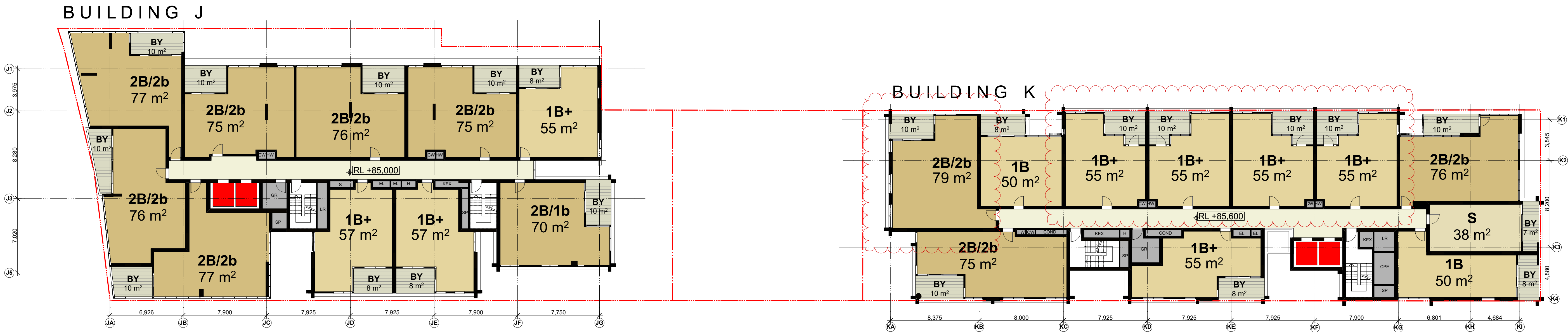
Drawing Title  
**Block Plans  
Level 07 Block Plan**

| Rev.   | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|--------|----------|----|-------|---------------------------|-------------|----------|-------|
| J      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | North |
| Scale  |          |    |       | 1:200 @A1, 50%@A3         | Dwg No.     | Rev      |       |
| Status |          |    |       | For Information           | DA-110-007  | J        |       |

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# Level 08 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

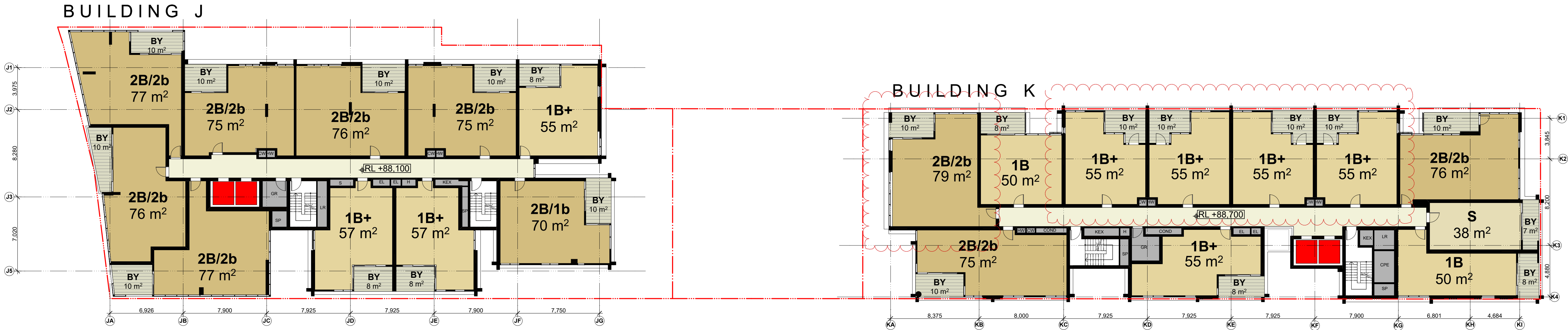
Drawing Title  
**Block Plans  
Level 08 Block Plan**

| Rev.   | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|--------|----------|----|-------|---------------------------|-------------|----------|-------|
| J      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | ↗     |
| Scale  |          |    |       | 1:200 @A1, 50%@A3         |             |          |       |
| Status |          |    |       | For Information           | DA-110-008  | Rev      | J     |

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# Level 09 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans  
Level 09 Block Plan**

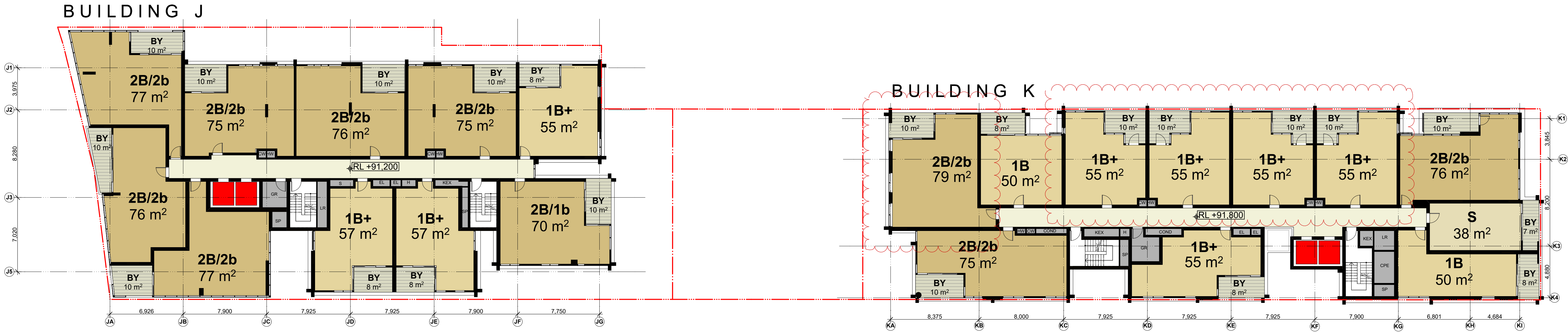
| Rev.   | Date     | By | Appr. | Notes                     | Project No.        | Drawn by | North |
|--------|----------|----|-------|---------------------------|--------------------|----------|-------|
| J      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039              | SM       | North |
| Scale  |          |    |       | 1:200 @A1, 50% @A3        |                    |          |       |
| Status |          |    |       | For Information           | Dwg No. DA-110-009 | Rev. J   |       |

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Level 10 Block Plan



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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |  |  |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

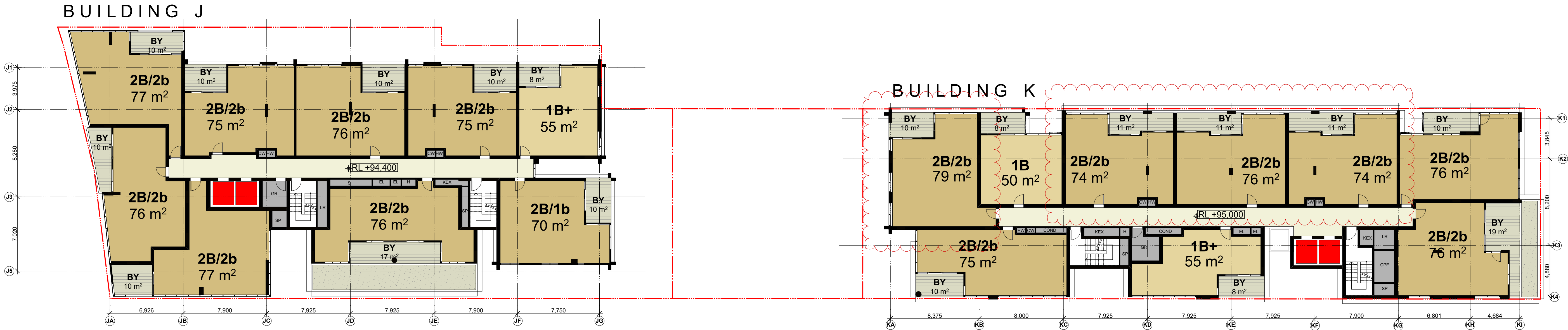
Drawing Title  
**Block Plans  
Level 10 Block Plan**

| Rev.   | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|--------|----------|----|-------|---------------------------|-------------|----------|-------|
| J      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | ↗     |
| Scale  |          |    |       | 1:200 @A1, 50% @A3        |             |          |       |
| Status |          |    |       | For Information           | DA-110-010  | Rev      | J     |

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# Level 11 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | O   | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

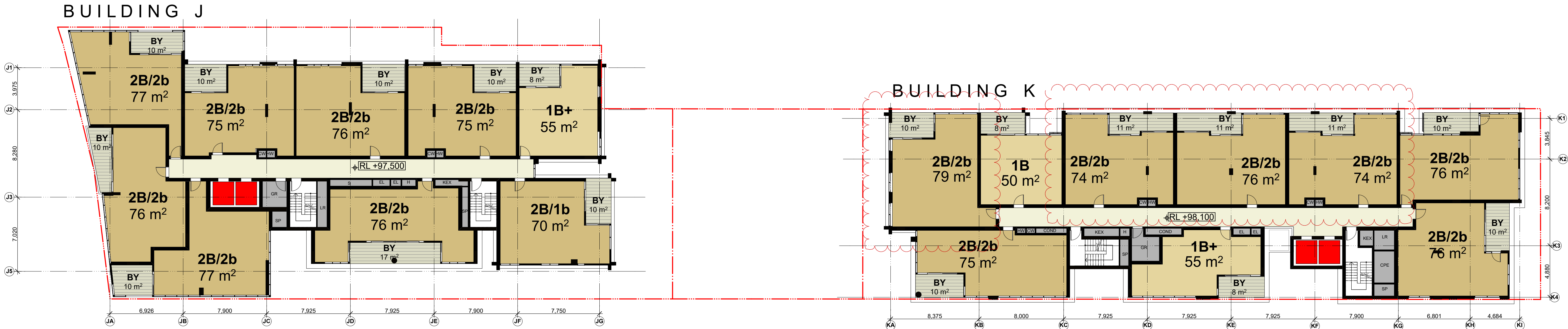
Drawing Title  
**Block Plans  
Level 11 Block Plan**

| Rev.   | Date     | By | Appr. | Notes                     | Project No. | Drawn by | North |
|--------|----------|----|-------|---------------------------|-------------|----------|-------|
| L      | 20.11.17 | KD |       | APARTMENT LAYOUTS AMENDED | 15039       | SM       | ↗     |
| Scale  |          |    |       | 1:200 @A1, 50% @A3        |             |          |       |
| Status |          |    |       | For Information           | DA-110-011  | Rev      | L     |

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# Level 12 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans  
Level 12 Block Plan**

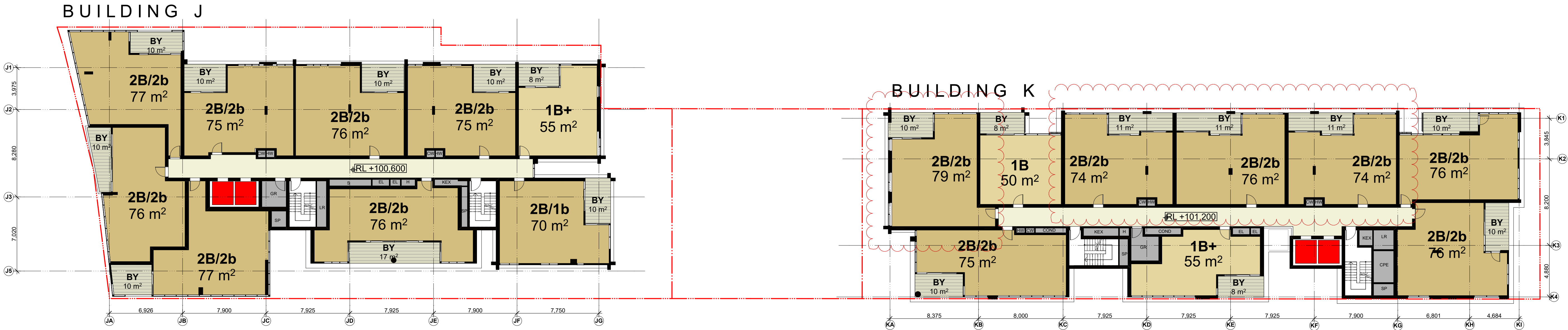
| Rev.            | Date               | Approved by | Revision Notes            | Project No. | 15039 | Drawn by | SM | North |
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| K               | 20.11.17           | KD          | APARTMENT LAYOUTS AMENDED |             |       |          |    |       |
| Scale           | 1:200 @A1, 50% @A3 |             |                           |             |       |          |    |       |
| Status          |                    |             |                           |             |       |          |    |       |
| For Information |                    |             |                           |             |       |          |    |       |
| Dwg No.         | DA-110-012         |             |                           |             |       |          |    |       |
| Rev             | K                  |             |                           |             |       |          |    |       |

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Level 13 Block Plan



LOT 104

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|------------|------------------|----|---------------------|----|--------------------|----|-----------|-----|----------------------|
| LEGEND     |                  |    |                     |    |                    |    |           |     |                      |
| B          | Bedroom          | D  | Dining              | H  | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | O  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | P  | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L  | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans  
Level 13 Block Plan**

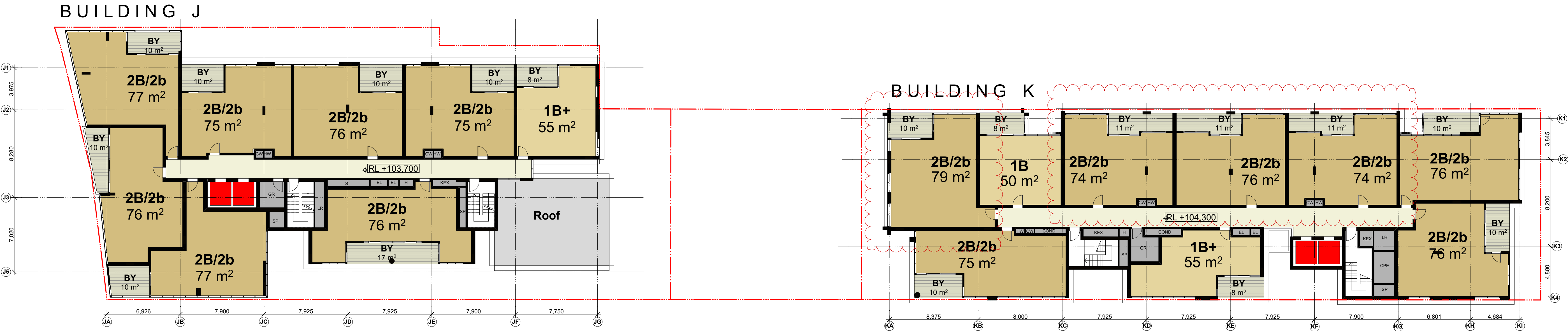
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|-----------------|-------------------|-------------|---------------------------|
| K               | 20.11.17          | KD          | APARTMENT LAYOUTS AMENDED |
| Rev.            | Date              | Approved by | Revision Notes            |
| Scale           | 1:200 @A1, 50%@A3 | Project No. | 15039                     |
| Status          |                   | Dwg No.     | DA-110-013                |
| For Information |                   | Rev         | K                         |

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Level 14 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans  
Level 14 Block Plan**

| Rev.            | Date              | Approved by | Revision Notes            | Project No. | Drawn by | North |
|-----------------|-------------------|-------------|---------------------------|-------------|----------|-------|
| K               | 20.11.17          | KD          | APARTMENT LAYOUTS AMENDED | 15039       | SM       | ↗     |
| Scale           | 1:200 @A1, 50%@A3 |             |                           |             |          |       |
| Status          |                   |             |                           |             |          |       |
| For Information |                   |             |                           | DA-110-014  | Rev      | K     |

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# Level 01 Floor Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 01**

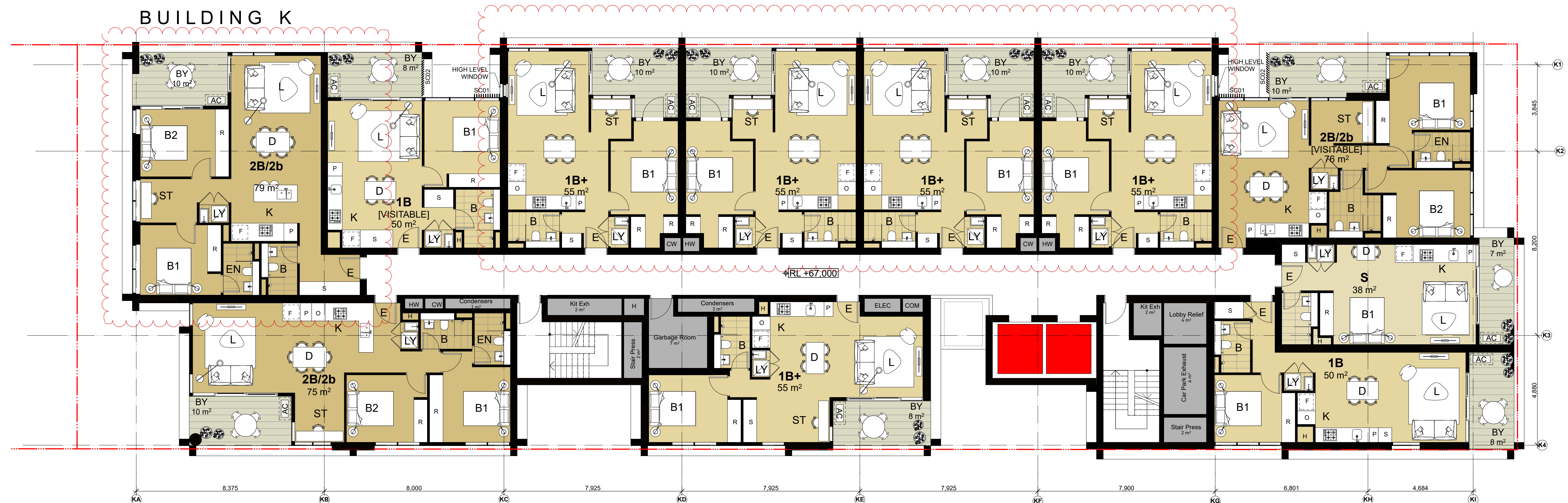
L 20.11.17 KD APARTMENT LAYOUTS AMENDED  
Rev. Date Approved by Revision Notes  
Scale Project No. 15039 Drawn by SM North  
1:100 @A1, 50% @A3  
Status Dwg No. DA-113-001 Rev L

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# Level 02 Floor Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 02**

J Rev. 20.11.17 KD Approved by APARTMENT LAYOUTS AMENDED  
 Scale Project No. 15039 Drawn by SM North  
 1:100 @A1, 50% @A3  
 Status Dwg No. DA-113-002 Rev J

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# Level 03 Floor Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Building K Floor Plan  
Level 03**

| J      |                    | 20.11.17    |                | KD          |                | APARTMENT LAYOUTS AMENDED |       |
|--------|--------------------|-------------|----------------|-------------|----------------|---------------------------|-------|
| Rev.   | Date               | Approved by | Revision Notes | Project No. | Revision Notes | Drawn by                  | North |
| Scale  | 1:100 @A1, 50% @A3 |             |                | 15039       |                | SM                        |       |
| Status | For Information    |             |                | DA-113-003  |                | J                         |       |

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# Level 04 Floor Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Building K Floor Plan  
Level 04**

| J      |                    | 20.11.17    |                | KD          |                | APARTMENT LAYOUTS AMENDED |       |
|--------|--------------------|-------------|----------------|-------------|----------------|---------------------------|-------|
| Rev.   | Date               | Approved by | Revision Notes | Project No. | Revision Notes | Drawn by                  | North |
| Scale  | 1:100 @A1, 50% @A3 |             |                | 15039       |                | SM                        |       |
| Status | For Information    |             |                | DA-113-004  |                | J                         |       |

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## Level 05 Floor Plan



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|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

Project Title  
**LACHLAN'S LINE**  
NORTH RYDE

Drawing Title

**Building K Floor Plan  
Level 05**

J 20.11.17 KD APARTMENT LAYOUTS AMENDED  
 Rev. Date Approved by Revision Notes  
 Scale Project No. 15039 Drawn by SM North  
 1:100 @A1, 50% @A3  
 Status Dwg No. DA-113-005 Rev J

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## Level 06 Floor Plan



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|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 06**

J 20.11.17 KD APARTMENT LAYOUTS AMENDED  
 Rev. Date Approved by Revision Notes  
 Scale Project No. 15039 Drawn by SM North  
 1:100 @A1, 50% @A3  
 Status Dag No. DA-113-006 Rev J

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## Level 07 Floor Plan



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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan**  
**Level 07**

|                    |                  |                   |   |       |                |
|--------------------|------------------|-------------------|---|-------|----------------|
| J<br>Rev.          | 20.11.17<br>Date | KD<br>Approved by | APARTMENT LAYOUTS AMENDED<br>Revision Notes |       |                |
| Scale              |                  |                   | Project No.                                 | 15039 | Drawn by North |
| 1:100 @A1, 50% @A3 |                  |                   |   |       | SM             |
| Status             |                  |                   | Dwg No.                                     | Rev   | J              |
| For Information    |                  |                   | DA-113-007                                  |       |                |

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# Level 08 Floor Plan



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|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

Project Title  
**LACHLAN'S LINE**  
NORTH RYDE

Drawing Title

**Building K Floor Plan  
Level 08**

J 20.11.17 KD APARTMENT LAYOUTS AMENDED  
 Rev. Date Approved by Revision Notes  
 Scale Project No. 15039 Drawn by SM North  
 1:100 @A1, 50% @A3  
 Status Dwg No. DA-113-008 Rev J

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## Level 09 Floor Plan



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|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 09**

|                           |                   |                   |   |   |  |
|---------------------------|-------------------|-------------------|---|---|--|
| J<br>Rev.                 | 20.11.17<br>Date  | KD<br>Approved by | APARTMENT LAYOUTS AMENDED<br>Revision Notes |   |  |
| Scale                     | Project No.       |                   | Drawn by                                    | North   |  |
| <b>1:100 @A1, 50% @A3</b> | <b>15039</b>      |                   | <b>SM</b>                                   |  |  |
| Status                    | Dwg No.           |                   | Rev   | <b>J</b>  |  |
| <b>For Information</b>    | <b>DA-113-009</b> |                   |   |   |  |

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## Level 10 Floor Plan



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|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 10**

|                           |                  |                   |                           |   |
|---------------------------|------------------|-------------------|---------------------------|---|
| J<br>Rev.                 | 20.11.17<br>Date | KD<br>Approved by | APARTMENT LAYOUTS AMENDED |   |
| Scale                     | Project No.      |                   | Drawn by                  | North   |
| <b>1:100 @A1, 50% @A3</b> | <b>15039</b>     |                   | <b>SM</b>                 |  |
| Status                    | Dwg No.          | Rev               | J                         |   |
| <b>For Information</b>    |                  | <b>DA-113-010</b> |                           |   |

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## Level 11 Floor Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
NORTH RYDE

Drawing Title

**Building K Floor Plan  
Level 11**

|                    |                  |                   |   |            |                |
|--------------------|------------------|-------------------|---|------------|----------------|
| K<br>Rev.          | 20.11.17<br>Date | KD<br>Approved by | APARTMENT LAYOUTS AMENDED<br>Revision Notes |            |                |
| Scale              |                  |                   | Project No.                                 | 15039      | Drawn by North |
| 1:100 @A1, 50% @A3 |                  |                   |   |            | SM             |
| Status             |                  |                   | Dwg No.                                     | DA-113-011 | Rev K          |

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## Level 12 Floor Plan



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
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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 12**

|                          |          |             |                           |           |   |
|--------------------------|----------|-------------|---------------------------|-----------|---|
| L                        | 20.11.17 | KD          | APARTMENT LAYOUTS AMENDED |           |   |
| Rev.                     | Date     | Approved by | Revision                  | Notes     |   |
| Scale                    |          |             | Project No.               | Drawn by  | North   |
| <b>1:100 @A1, 50%@A3</b> |          |             | <b>15039</b>              | <b>SM</b> |  |
| Status                   |          |             | Dwg No.                   | Rev       |   |
| <b>For Information</b>   |          |             | <b>DA-113-012</b>         | <b>L</b>  |   |

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# Level 13 Floor Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Building K Floor Plan  
Level 13**

| K Rev.             |  | 20.11.17 KD |  | APARTMENT LAYOUTS AMENDED |  |
|--------------------|--|-------------|--|---------------------------|--|
| Date               |  | Approved by |  | Revision Notes            |  |
| Scale              |  | Project No. |  | Drawn by                  |  |
| 1:100 @A1, 50% @A3 |  | 15039       |  | SM                        |  |
| Status             |  | Dwg No.     |  | Rev                       |  |
| For Information    |  | DA-113-013  |  | K                         |  |

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## Level 14 Floor Plan



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| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

**Building K Floor Plan  
Level 14**

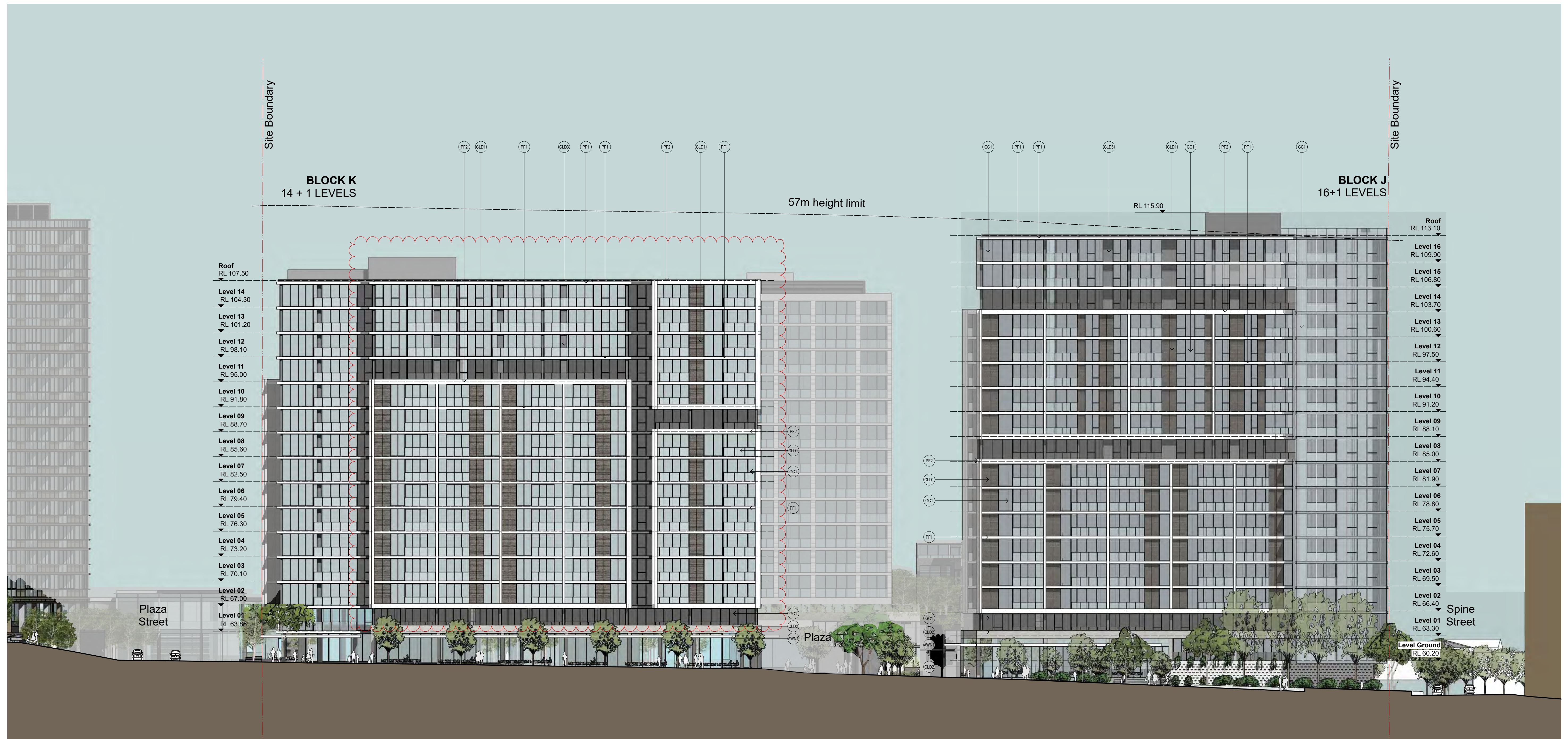
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|---------------------------|-------------------|-------------------|---|---|--|
| K<br>Rev.                 | 20.11.17<br>Date  | KD<br>Approved by | APARTMENT LAYOUTS AMENDED<br>Revision Notes |   |  |
| Scale                     | Project No.       |                   | Drawn by                                    | North   |  |
| <b>1:100 @A1, 50% @A3</b> | <b>15039</b>      |                   | <b>SM</b>                                   |  |  |
| Status                    | Dwg No.           |                   | Rev   | K   |  |
| <b>For Information</b>    | <b>DA-113-014</b> |                   |   |   |  |

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## East Elevation



## SCHEDULE OF EXTERNAL MATERIALS & FINISHES

|        |  |       |  |       |  |
|--------|--|-------|--|-------|--|
| (AWN1) | Awning with painted soffit and painted steel edge. | (GC1) | Clear glazing in dark grey powder coated frames. | (PF1) | Projecting slab edge, painted white.     |
| (CLD1) | Brick textured finish.                             |       |  | (PF2) | Expressed concrete frame, painted white. |
| (CLD2) | Glazed brick, white.                               |       |  |       |  |
| (CLD3) | Painted masonry, grey.                             |       |  |       |  |

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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

SP Stair Pressurisation  
ST Study  
TCE Terrace

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title  
**GA Elevation**  
**East Elevation**

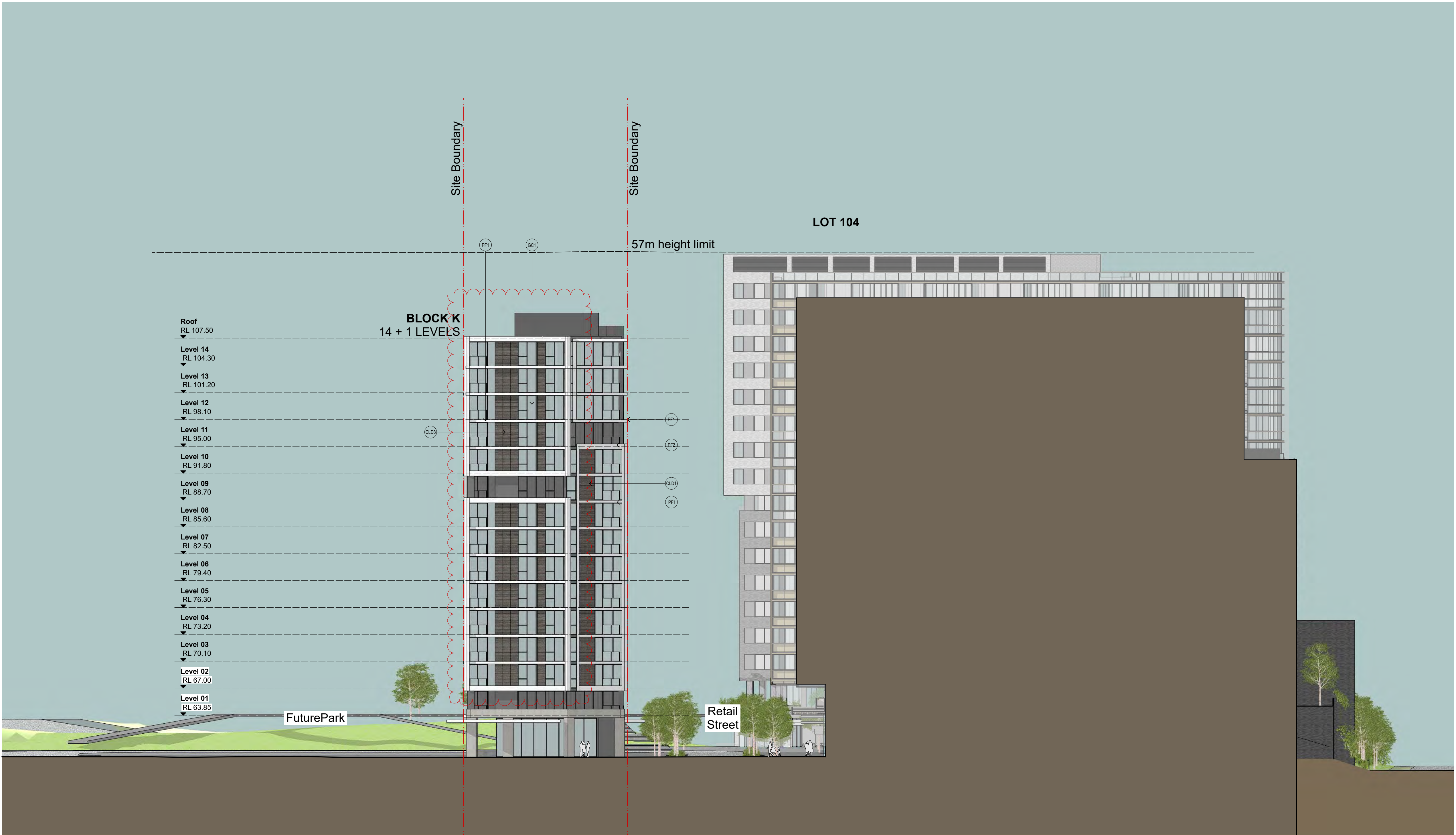
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|---------------------------|-------------|-------------|-------------------------------|
| I                         | 20.11.17    | KD          | Updated to match plan changes |
| H                         | 24.03.17    | KD          | Levels revised                |
| Rev.                      | Date        | Approved by | Revision Notes                |
| Scale                     | Project No. |             | Drawn by North                |
| 1:250, 1:100 @A1, 50% @A3 | 15039       |             | SM                            |
| Status                    | Dwg No.     |             | Rev                           |
| For Information           | DA-250-001  |             | 1                             |

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# North Elevation



## SCHEDULE OF EXTERNAL MATERIALS & FINISHES

|        |  |       |  |       |                                      |
|--------|--|-------|--|-------|--------------------------------------|
| (AWN)  | Awning with painted soffit and painted steel edge. | (GC1) | Clear glazing in dark grey powder coated frames. | (PF1) | Projecting slab edge, painted white. |
| (CLD1) | Brick textured finish.                             | (PF2) | Expressed concrete frame, painted white.         |       |                                      |
| (CLD2) | Glazed brick, white.                               |       |  |       |                                      |
| (CLD3) | Painted masonry, grey.                             |       |  |       |                                      |

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| LEGEND     |                  |    |                     |     |                      |
|------------|------------------|----|---------------------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services   |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter      |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust      |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room          |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief         |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry              |
|            |                  |    |                     | M   | Media                |
|            |                  |    |                     | O   | Oven                 |
|            |                  |    |                     | P   | Pantry               |
|            |                  |    |                     | R   | Robe                 |
|            |                  |    |                     | RW  | Rainwater            |
|            |                  |    |                     | S   | Storage              |
|            |                  |    |                     | SP  | Stair Pressurisation |
|            |                  |    |                     | ST  | Study                |
|            |                  |    |                     | TCE | Terrace              |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title  
**GA Elevation**  
**North Section**

|      |          |             |                               |
|------|----------|-------------|-------------------------------|
| E    | 20.11.17 | KD          | Updated to match plan changes |
| D    | 24.03.17 | KD          | Levels revised                |
| Rev. | Date     | Approved by | Revision Notes                |

Scale  
**1:250, 1:100 @A1, 50%@A3**

Status  
**For Information**

Project No.  
**15039**

Dwg No.  
**DA-250-005**

Drawn by  
**SM**

Rev  
**E**

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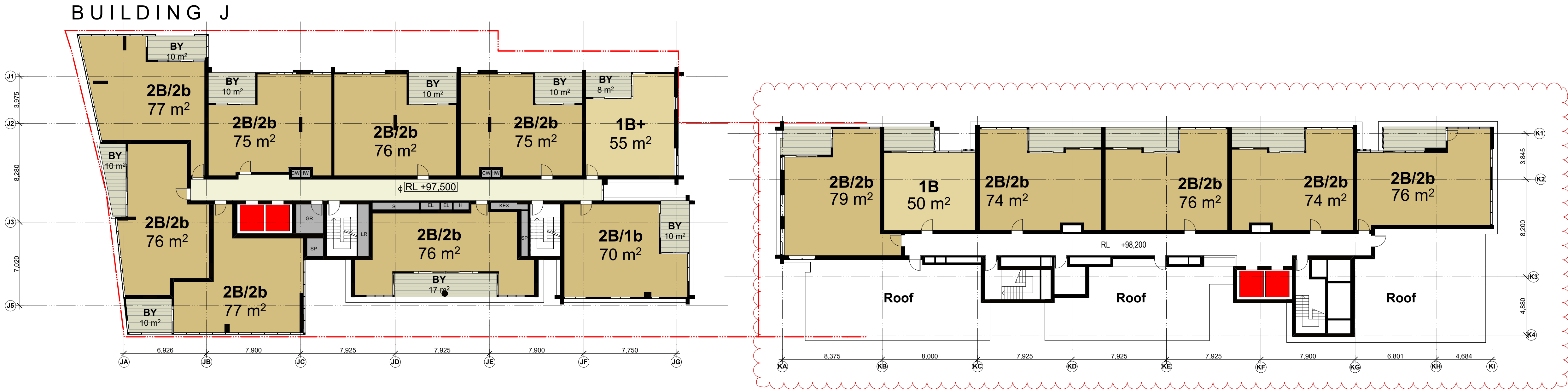
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## **OPTION B – FURTHER AMENDMENTS TO AMENDED DA**



Level 12 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

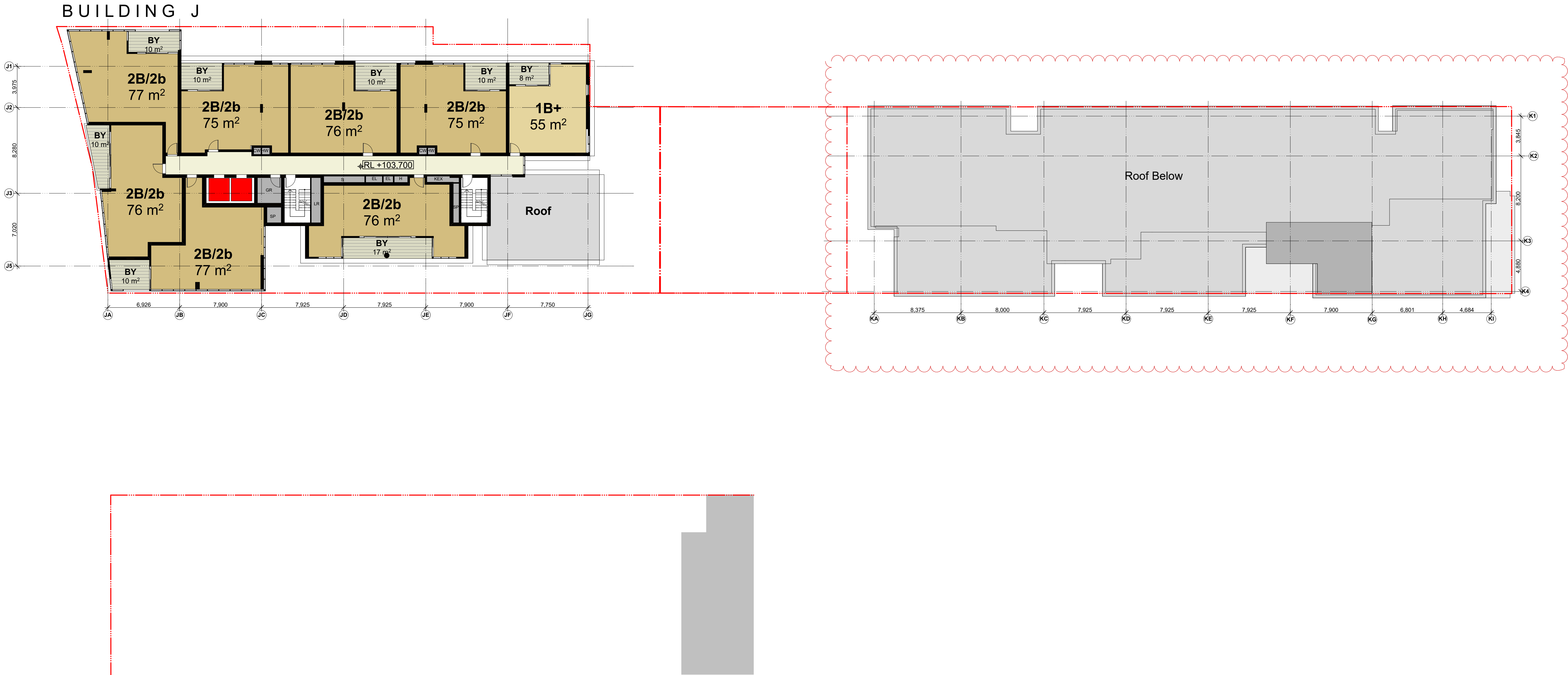
Drawing Title  
**Block Plans Floors Deleted  
Level 12 Block Plan**

| L      |                   | KD   |             | APARTMENT LAYOUTS AMENDED - FLOORS DELETED |             |
|--------|-------------------|------|-------------|--|-------------|
| Rev.   | Date              | Date | Approved by | Revision Notes                             |             |
| Scale  | 1:200 @A1, 50%@A3 |      | Project No. | 15039                                      | Drawn by SM |
| Status | For Information   |      | Dwg No.     | DA-110-012                                 | Rev L       |

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Level 13 Block Plan



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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |  |  |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Block Plans Floors Deleted  
Level 13 Block Plan**

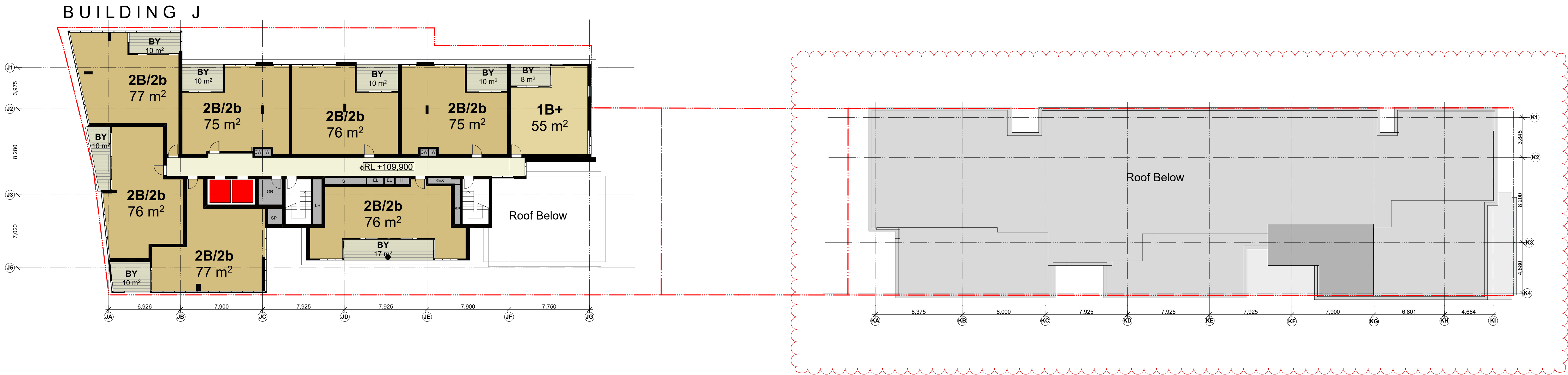
| L      |                          | KD     |                          | APARTMENT LAYOUTS AMENDED - FLOORS DELETED |                    |
|--------|--------------------------|--------|--------------------------|--|--------------------|
| Rev.   | Date                     | Rev.   | Date                     | Revision Notes                             |                    |
| 1      | 20.11.17                 | 1      | 20.11.17                 | Project No. <b>15039</b>                   | Drawn by <b>SM</b> |
| Scale  | <b>1:200 @A1, 50%@A3</b> | Scale  | <b>1:200 @A1, 50%@A3</b> | Dwg No. <b>DA-110-013</b>                  | Rev <b>L</b>       |
| Status | <b>For Information</b>   | Status | <b>For Information</b>   |  |                    |

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# Level 14 Block Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bedroom          | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

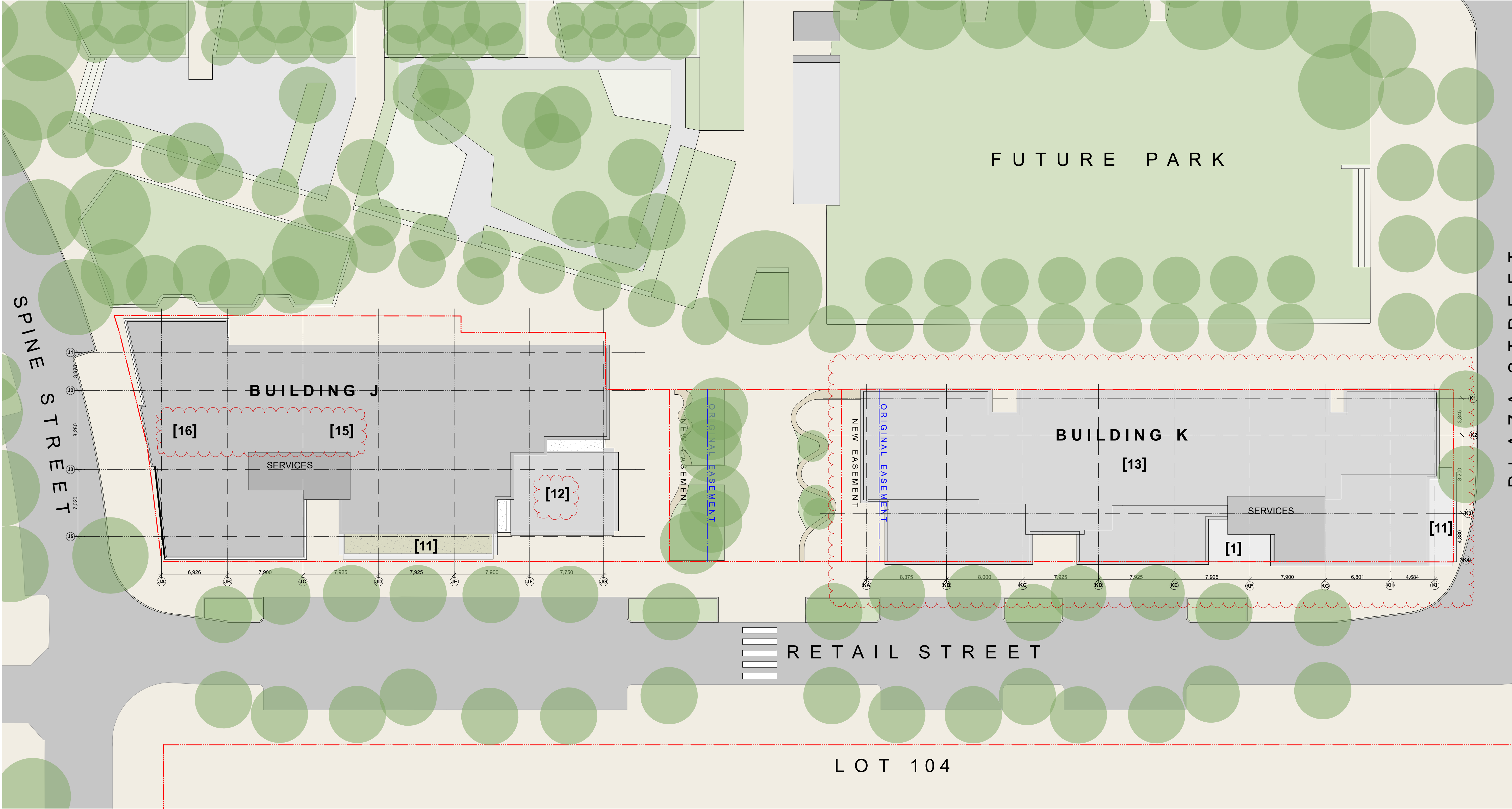
Drawing Title  
**Block Plans Floors Deleted**  
**Level 14 Block Plan**

| L      |          | KD                 |                | APARTMENT LAYOUTS AMENDED - FLOORS DELETED |          |
|--------|----------|--------------------|----------------|--|----------|
| Rev.   | Date     | Approved by        | Revision Notes | Project No.                                | Drawn by |
| 1      | 20.11.17 |                    |                | 15039                                      | SM       |
| Scale  |          | 1:200 @A1, 50% @A3 |                | Dwg No.                                    | Rev      |
| Status |          | For Information    |                | DA-110-014                                 | L        |

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Roof Plan



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|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title  
**Block Plans Floors Deleted**  
**Roof Plan**

| Rev.    | Date               | By | Approved By | Revision Notes                             | Project No. | Drawn by | North |
|---------|--------------------|----|-------------|--|-------------|----------|-------|
| J       | 20.11.17           | KD |             | APARTMENT LAYOUTS AMENDED - FLOORS DELETED | 15039       | SM       | North |
| Scale   | 1:200 @A1, 50% @A3 |    |             |  |             |          |       |
| Status  | For Information    |    |             |  |             |          |       |
| Dwg No. | DA-110-017         |    |             |  |             |          |       |
| Rev     | J                  |    |             |  |             |          |       |

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# Level 12 Floor Plan



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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Floor Plans - Floors Deleted  
Level 12**

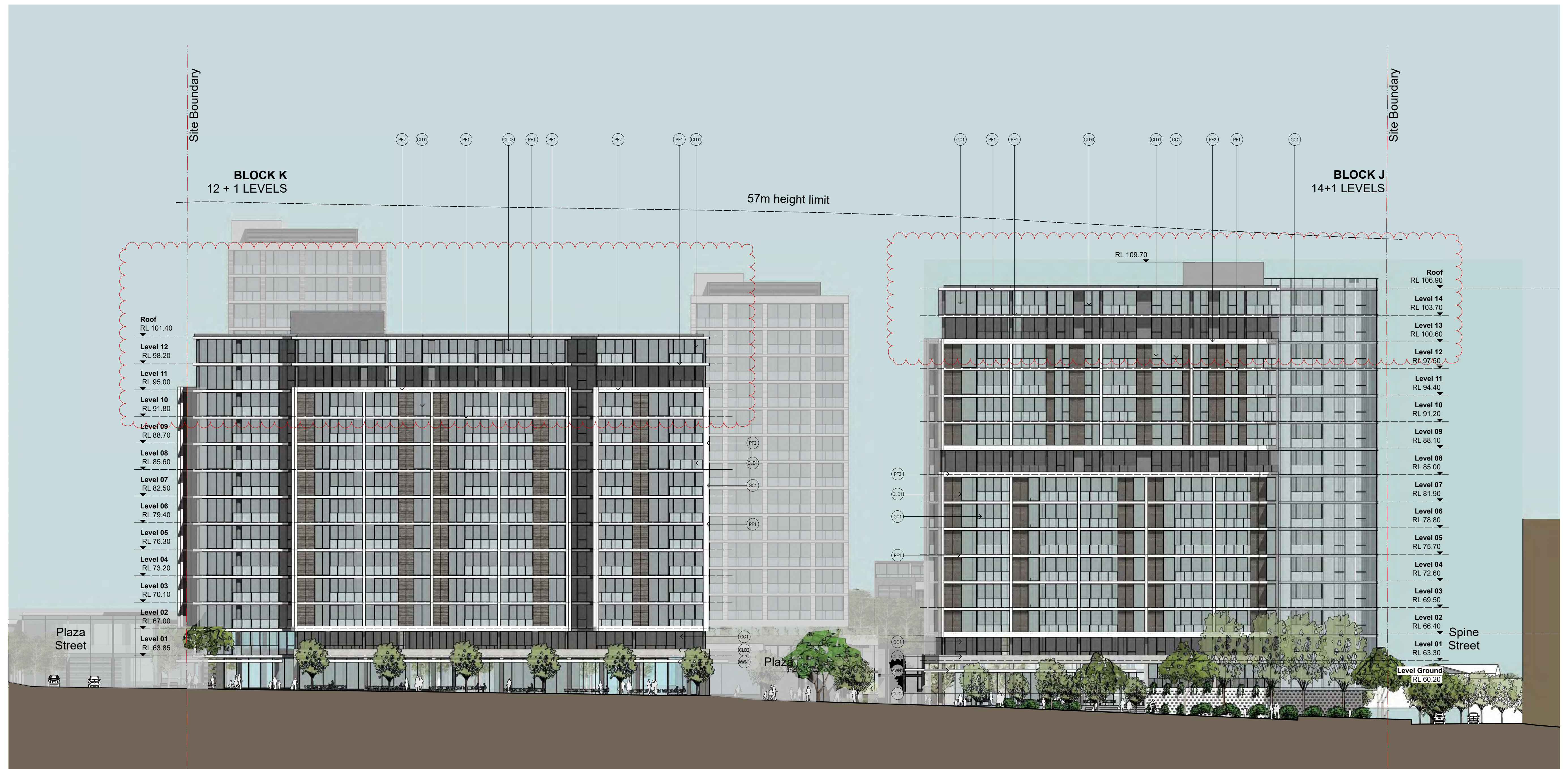
| Rev.                        | Date     | Approved by | Revision Notes                                    | Project No. | Drawn by | North |
|-----------------------------|----------|-------------|---|-------------|----------|-------|
| M                           | 20.11.17 | KD          | APARTMENT LAYOUTS AMENDED<br>& APARTMENTS DELETED | 15039       | SM       | ↗     |
| Scale<br>1:100 @A1, 50% @A3 |          |             |   | Dwg No.     | Rev      |       |
| For Information             |          |             |   | DA-113-012  | M        |       |

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## East Elevation



## SCHEDULE OF EXTERNAL MATERIALS & FINISHES

- |      |  |     |  |     |  |
|------|--|-----|--|-----|--|
| AWN1 | Awning with painted soffit and painted steel edge. | GC1 | Clear glazing in dark grey powder coated frames. | PF1 | Projecting slab edge, painted white.     |
| CLD1 | Brick textured finish.                             |     |  | PF2 | Expressed concrete frame, painted white. |
| CLD2 | Glazed brick, white.                               |     |  |     |  |
| CLD3 | Painted masonry, grey.                             |     |  |     |  |

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| LEGEND            |                  |           |                     |            |                    |           |           |            |                      |
|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

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DLCS Quality Endorsed Company ISO 9001:2008, Registration Number 20476  
Nominated Architect: Nicholas Turner 6655, AEN 86 054 034 911

Project Title  
**LACHLAN'S LINE**  
NORTH RYDE

Drawing Title

**Elevations - Floors Deleted**  
**East Elevation**

|      |          |             |                               |
|------|----------|-------------|-------------------------------|
| J    | 20.11.17 | KD          | Floors Deleted                |
| I    | 20.11.17 | KD          | Updated to match plan changes |
| H    | 24.03.17 | KD          | Levels revised                |
| Rev. | Date     | Approved by | Revision Notes                |

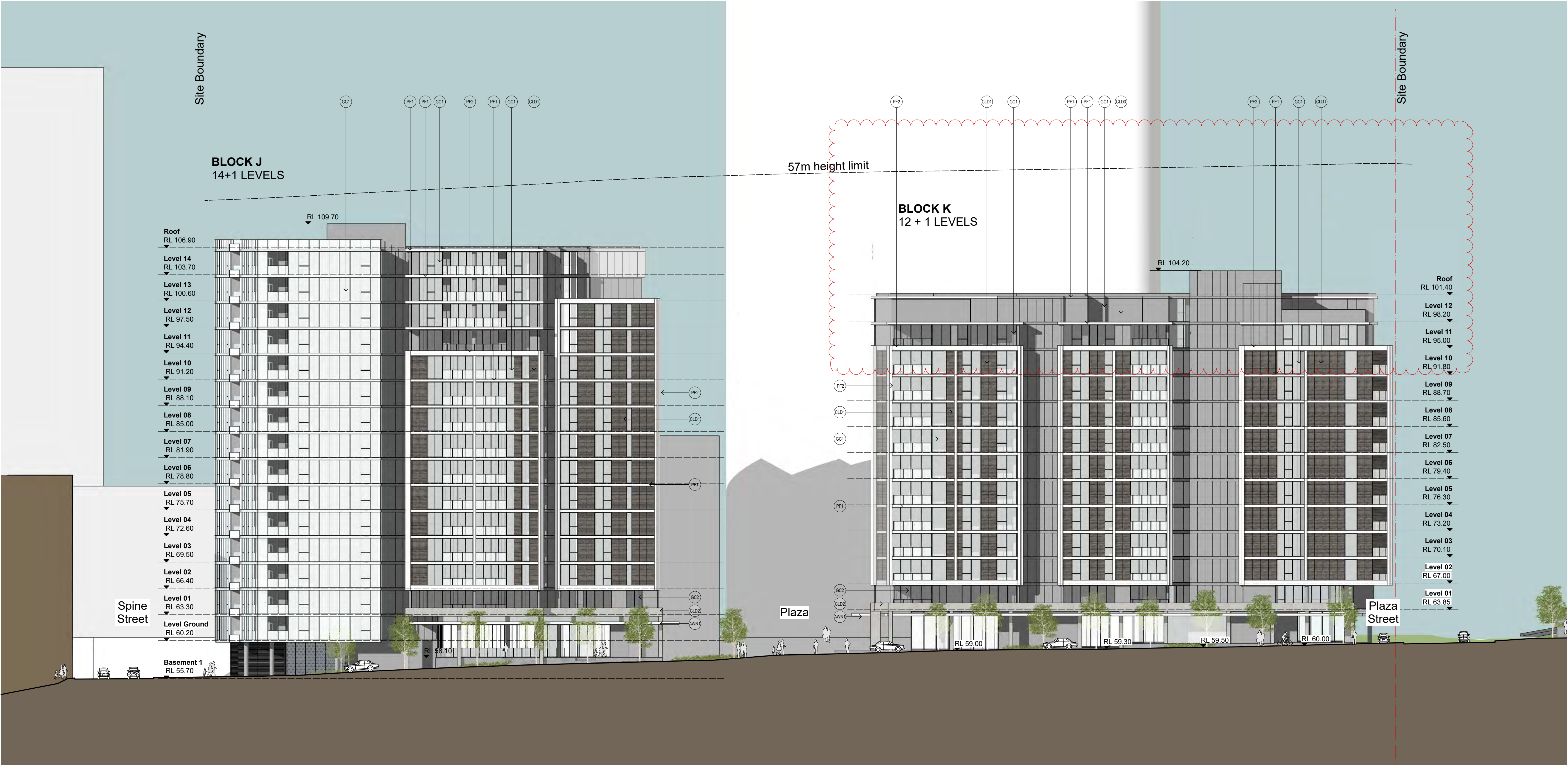
|                           |             |            |
|---------------------------|-------------|------------|
| Scale                     | Project No. | 15039      |
| 1:250, 1:100 @A1, 50% @A3 | Dwg No.     | DA-250-001 |

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# West Elevation



## SCHEDULE OF EXTERNAL MATERIALS & FINISHES

- |      |  |     |  |     |   |
|------|--|-----|--|-----|---|
| AWN1 | Awning with painted soffit and painted steel edge. | GC1 | Clear glazing in dark grey powder coated frames. | PF1 | Projecting slab edge, painted white.    |
| CLD1 | Brick textured finish.                             |     |  | PF2 | Expressed concrete frame, painted white |
| CLD2 | Glazed brick, white.                               |     |  |     |   |
| CLD3 | Painted masonry, grey.                             |     |  |     |   |

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|                   |                  |           |                     |            |                    |           |           |            |                      |
|-------------------|------------------|-----------|---------------------|------------|--------------------|-----------|-----------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services | <b>M</b>  | Media     | <b>SP</b>  | Stair Pressurisation |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter    | <b>O</b>  | Oven      | <b>ST</b>  | Study                |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust    | <b>P</b>  | Pantry    | <b>TCE</b> | Terrace              |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room        | <b>R</b>  | Robe      |            |                      |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief       | <b>RW</b> | Rainwater |            |                      |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry            | <b>S</b>  | Storage   |            |                      |

SP Stair Pressurisation  
ST Study  
TCE Terrace

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title

### Elevations - Floors Deleted West Elevation

|                           |             |             |                |          |       |
|---------------------------|-------------|-------------|----------------|----------|-------|
| K                         | 20.11.17    | KD          | Floors Deleted |          |       |
| J                         | 24.03.17    | KD          | Levels revised |          |       |
| Rev.                      | Date        | Approved by | Revision Notes |          |       |
| Scale                     | Project No. |             |                | Drawn by | North |
| 1:250, 1:100 @A1, 50% @A3 | 15039       |             |                | SM       |       |
| Status                    | Dwg No.     |             |                | Rev      |       |
| For Information           | DA-250-002  |             |                | K        |       |

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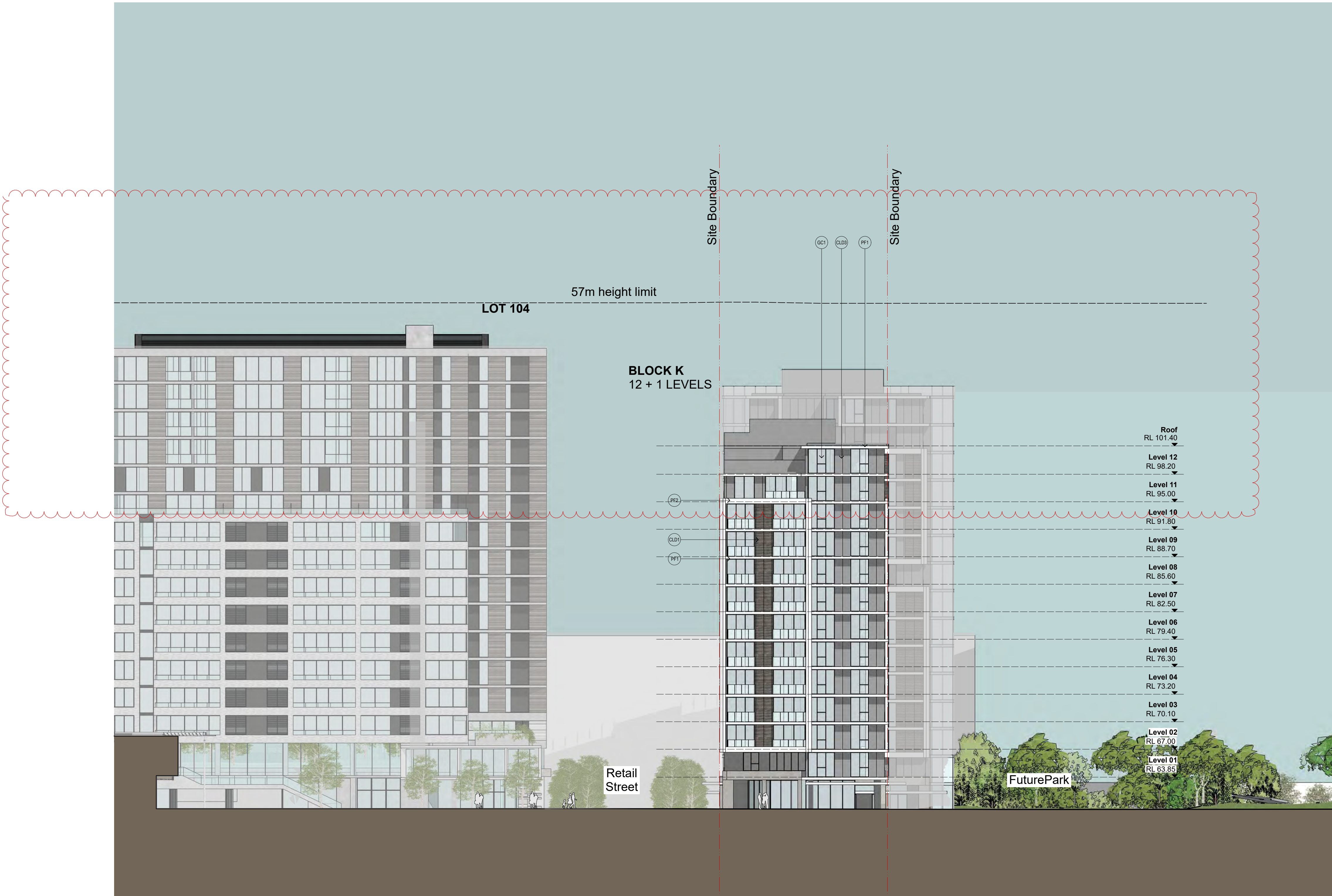
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# South Elevation



## SCHEDULE OF EXTERNAL MATERIALS & FINISHES

|        |  |       |  |       |                                      |
|--------|--|-------|--|-------|--------------------------------------|
| (AWN)  | Awning with painted soffit and painted steel edge. | (GC1) | Clear glazing in dark grey powder coated frames. | (PF1) | Projecting slab edge, painted white. |
| (CLD1) | Brick textured finish.                             | (PF2) | Expressed concrete frame, painted white.         |       |                                      |
| (CLD2) | Glazed brick, white.                               |       |  |       |                                      |
| (CLD3) | Painted masonry, grey.                             |       |  |       |                                      |

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| LEGEND            |                  |           |                     |            |                      |
|-------------------|------------------|-----------|---------------------|------------|----------------------|
| <b>B</b>          | Bathroom         | <b>D</b>  | Dining              | <b>H</b>   | Hydraulic Services   |
| <b>B1, B2, B3</b> | Bedroom 1, 2, 3  | <b>E</b>  | Entry               | <b>HW</b>  | Hot Water Meter      |
| <b>BY</b>         | Balcony          | <b>EL</b> | Electrical Services | <b>KEX</b> | Kitchen Exhaust      |
| <b>COND</b>       | Condenser Riser  | <b>F</b>  | Fridge              | <b>L</b>   | Living Room          |
| <b>CPE</b>        | Car Park Exhaust | <b>GM</b> | Gas Meter           | <b>LR</b>  | Lobby Relief         |
| <b>CW</b>         | Cold Water       | <b>GR</b> | Garbage Room        | <b>LY</b>  | Laundry              |
|                   |                  |           |                     | <b>M</b>   | Media                |
|                   |                  |           |                     | <b>O</b>   | Oven                 |
|                   |                  |           |                     | <b>P</b>   | Pantry               |
|                   |                  |           |                     | <b>R</b>   | Robe                 |
|                   |                  |           |                     | <b>RW</b>  | Rainwater            |
|                   |                  |           |                     | <b>S</b>   | Storage              |
|                   |                  |           |                     | <b>SP</b>  | Stair Pressurisation |
|                   |                  |           |                     | <b>ST</b>  | Study                |
|                   |                  |           |                     | <b>TCE</b> | Terrace              |

Project Title  
**LACHLAN'S LINE  
NORTH RYDE**

Drawing Title  
**Elevations - Floors Deleted  
South Elevation**

|        |                           |             |                |          |    |
|--------|---------------------------|-------------|----------------|----------|----|
| G      | 20.11.17                  | KD          | Floors Deleted |          |    |
| F      | 24.03.17                  | KD          | Levels revised |          |    |
| Rev.   | Date                      | Approved by | Revision Notes |          |    |
| Scale  | 1:250, 1:100 @A1, 50% @A3 | Project No. | 15039          | Drawn by | SM |
| Status | For Information           | Dwg No.     | DA-250-004     | Rev      | G  |

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# North Elevation



## SCHEDULE OF EXTERNAL MATERIALS & FINISHES

|        |  |       |  |       |                                      |
|--------|--|-------|--|-------|--------------------------------------|
| (AWN)  | Awning with painted soffit and painted steel edge. | (GC1) | Clear glazing in dark grey powder coated frames. | (PF1) | Projecting slab edge, painted white. |
| (CLD1) | Brick textured finish.                             | (PF2) | Expressed concrete frame, painted white.         |       |                                      |
| (CLD2) | Glazed brick, white.                               |       |  |       |                                      |
| (CLD3) | Painted masonry, grey.                             |       |  |       |                                      |

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| LEGEND     |                  |    |                     |     |                      |
|------------|------------------|----|---------------------|-----|----------------------|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services   |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter      |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust      |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room          |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief         |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry              |
|            |                  |    |                     | M   | Media                |
|            |                  |    |                     | O   | Oven                 |
|            |                  |    |                     | P   | Pantry               |
|            |                  |    |                     | R   | Robe                 |
|            |                  |    |                     | RW  | Rainwater            |
|            |                  |    |                     | S   | Storage              |
|            |                  |    |                     | SP  | Stair Pressurisation |
|            |                  |    |                     | ST  | Study                |
|            |                  |    |                     | TCE | Terrace              |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title  
**Elevations - Floors Deleted**  
**North Section**

|      |          |             |                               |
|------|----------|-------------|-------------------------------|
| F    | 20.11.17 | KD          | Floors Deleted                |
| E    | 20.11.17 | KD          | Updated to match plan changes |
| D    | 24.03.17 | KD          | Levels revised                |
| Rev. | Date     | Approved by | Revision Notes                |

Scale  
**1:250, 1:100 @A1, 50% @A3**

Project No. **15039** Drawn by **SM** North

Status **DA-250-005** Rev **F**

For Information

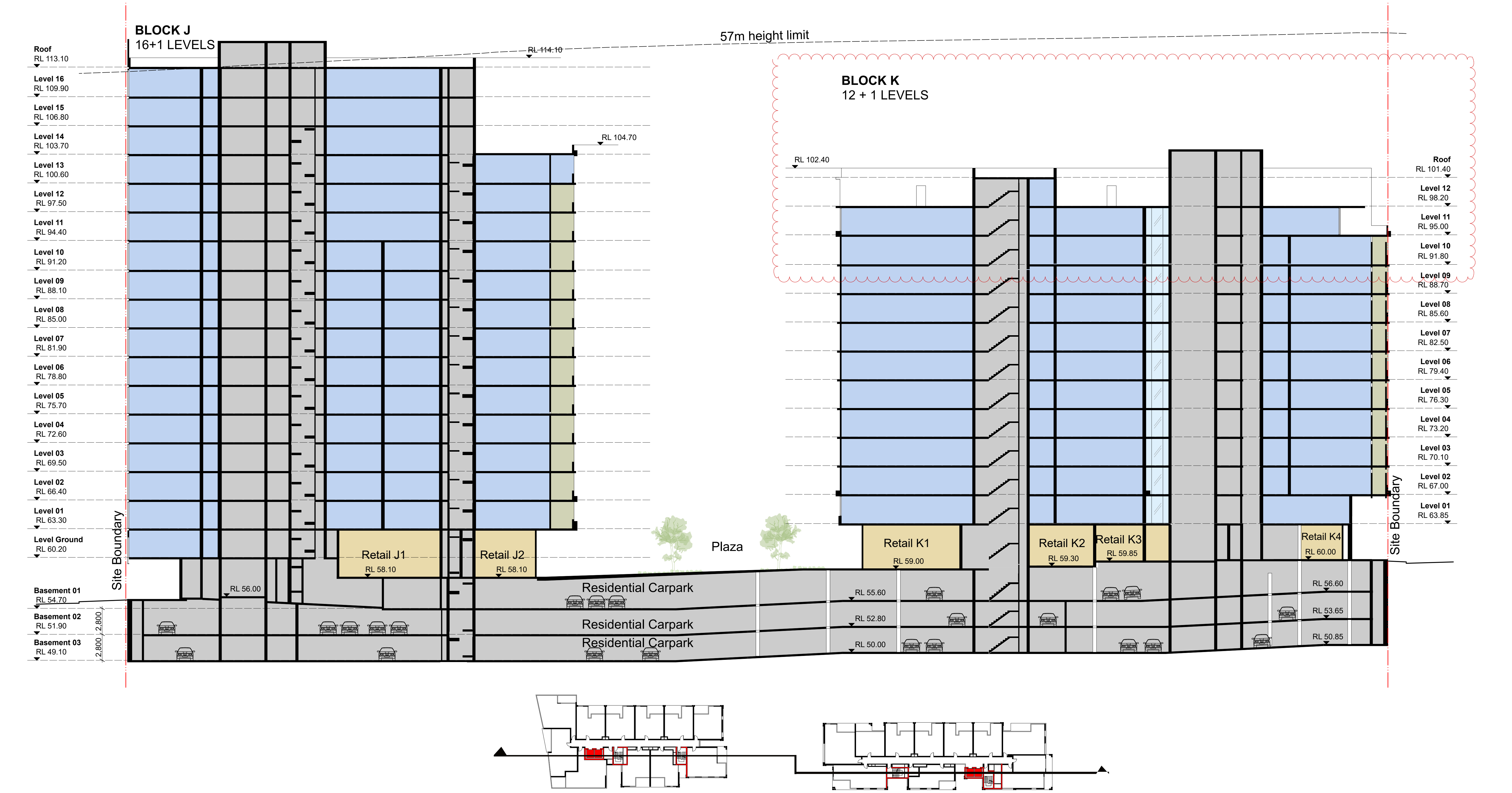
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Section A



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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |  |  |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

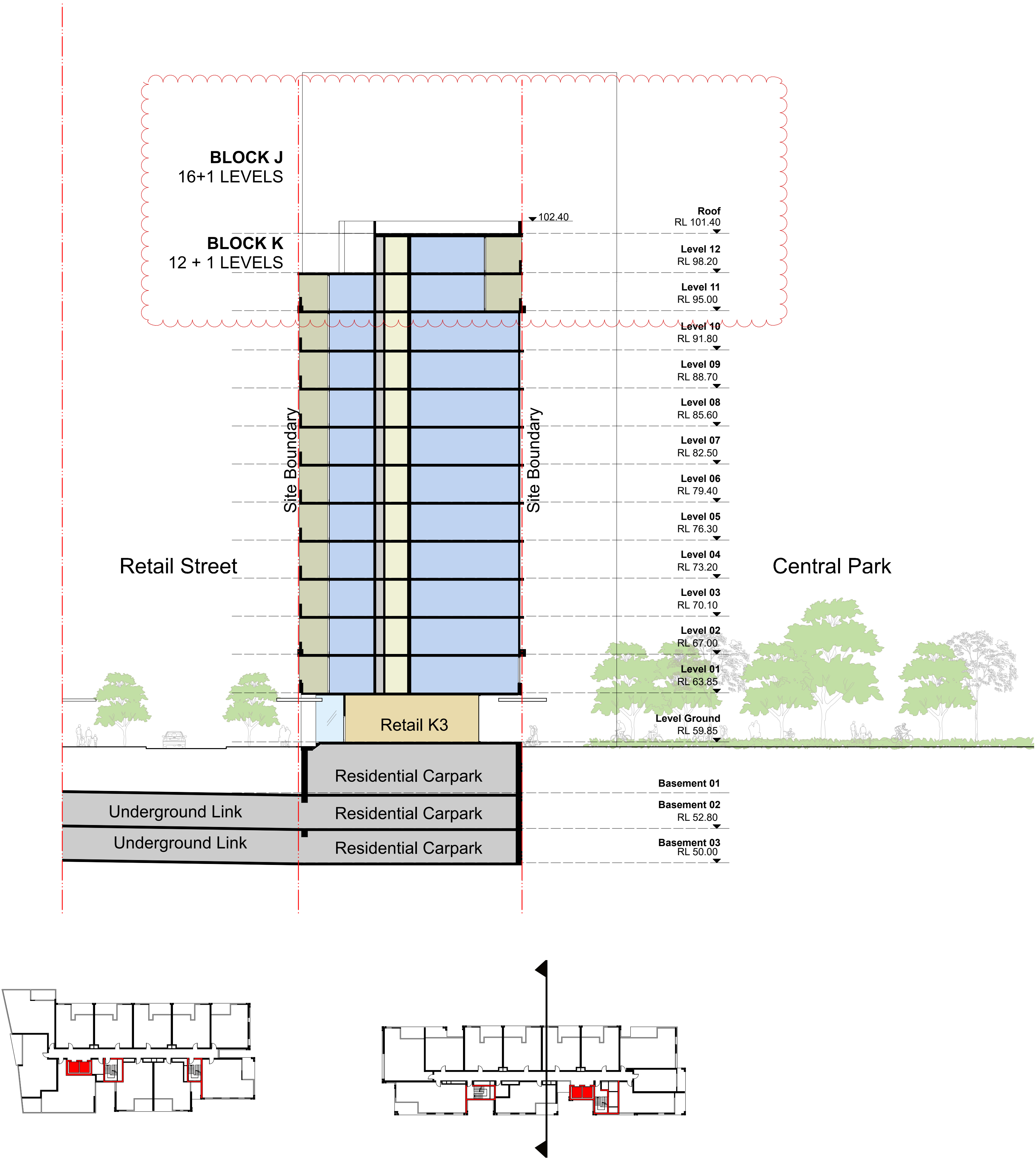
Drawing Title  
**Sections Floors Deleted**  
**Section A**

|          |                    |             |                |
|----------|--------------------|-------------|----------------|
| E        | 20.11.17           | KD          | Floors Deleted |
| D        | 24.03.17           | KD          | Levels revised |
| Rev.     | Date               | Approved by | Revision Notes |
| Scale    | 1:200 @A1, 50% @A3 | Project No. | 15039          |
| Status   | For Information    | Dwg No.     | DA-350-001     |
| Drawn by | SM                 | Rev         | E              |

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Section B



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| LEGEND     |                  |    |                     |     |                    |    |           |     |                      |  |  |
|------------|------------------|----|---------------------|-----|--------------------|----|-----------|-----|----------------------|--|--|
| B          | Bathroom         | D  | Dining              | H   | Hydraulic Services | M  | Media     | SP  | Stair Pressurisation |  |  |
| B1, B2, B3 | Bedroom 1, 2, 3  | E  | Entry               | HW  | Hot Water Meter    | O  | Oven      | ST  | Study                |  |  |
| BY         | Balcony          | EL | Electrical Services | KEX | Kitchen Exhaust    | P  | Pantry    | TCE | Terrace              |  |  |
| COND       | Condenser Riser  | F  | Fridge              | L   | Living Room        | R  | Robe      |     |                      |  |  |
| CPE        | Car Park Exhaust | GM | Gas Meter           | LR  | Lobby Relief       | RW | Rainwater |     |                      |  |  |
| CW         | Cold Water       | GR | Garbage Room        | LY  | Laundry            | S  | Storage   |     |                      |  |  |

Project Title  
**LACHLAN'S LINE**  
**NORTH RYDE**

Drawing Title  
**Sections Floors Deleted**  
**Section B**

|                    |            |             |                |
|--------------------|------------|-------------|----------------|
| E                  | 20.11.17   | KD          | Floors Deleted |
| D                  | 24.03.17   | KD          | Levels revised |
| Rev.               | Date       | Approved by | Revision Notes |
| Scale              |            |             |                |
| 1:200 @A1, 50% @A3 |            |             |                |
| Status             | Dwg No.    | Rev         |                |
| For Information    | DA-350-002 | E           |                |

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## **ATTACHMENT B – SOLAR ACCESS REPORT PREPARED BY DR STEVE KING**

**Expert Opinion**  
**SUPPLEMENTARY REPORT**  
**SOLAR ACCESS COMPLIANCE**  
**WITH UNIT LAYOUT & MASSING IMPROVEMENTS**



**Greenland Lachlan's Line Apartments**  
**20 November 2017**

Signed,

A handwritten signature in black ink that reads "Steve King". The signature is written in a cursive, flowing style. Below the signature is a dashed line.

---

**STEVE KING**

CONSULTANT

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## 1.0 PRELIMINARIES

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This supplementary report relates to analysis of ‘further improvements’ of design for winter solar access. The further improvements are primarily, but not limited to changes to the floor plans of some apartments.

The identified apartment layout changes are applied to both the ‘Current DA Scheme’, and the so-called ‘Option F preferred scheme’ which arose from previous sensitivity studies. Those sensitivity studies investigated the potential of building massing variations to improve both apartment solar access compliance and communal open space solar access.

For winter June 21, I report the outcome of a full re-analysis of solar access. For the Equinox, I calculate the most optimistic likely proportional changes.

### 1.1 Previous reports

My previous report of 17 October 2017 was the consolidation and summary of three studies:

#### 1.1.1 Peer review of solar access compliance of the submitted DA

This study was carried out in response to the recommendations of the Sydney North Planning Panel (SNPP) record of deferral, dated Wednesday 9 August 2017.

My original peer review report is dated 13 August 2017.

#### 1.1.2 Solar access sensitivity study

The study compared baseline ADG June 21 solar access compliance of the current DA initially with four iterative Options A – D, and after external overshadowing and other constraints were applied, to a preferred Option F.

#### 1.1.3 Equinox study

A further analysis was added to the sensitivity study, to include a comparison of June 21 solar access compliance of both current DA scheme and Option F, with performance at the Equinox. The analysis confirmed that due to self-shading of the facades because of the higher sun angles, solar access of glazing is dramatically reduced at the Equinox compared to that at midwinter.

## 2.0 FURTHER IMPROVEMENTS

---

*The previous sensitivity study demonstrated that building massing variations within a constrained concept plan for the overall site produce only small improvement of overall apartment solar access.*

Even with the significant changes in the heights of Buildings M, J and K as the options progress from A to D, there was only approximately 2% change in the overall baseline compliance. When the range of additional heights for Building M was further constrained to limit ‘off site’ overshadowing impacts, the available improvement in solar access for apartments was effectively no more than 1%.

*I understand that that subsequent discussion with the Panel identified that the potential impact of apartment layout changes may be greater than this relatively trivial improvement.*

## 2.1 Apartment layout changes

My usual practice, applied at the original peer review analysis, is to record sun to bedrooms and to potential wintergardens, even though they may not be considered 'complying'. The benefit of that approach is that it identifies further instances of 'solar access opportunity', which under favourable circumstances can be captured by appropriate apartment layout changes.

My previous experience indicates that such potential changes are most fruitful on nominal east or west facades, and may be simplistically described as 'pushing the living area glazing out to the façade'. When applied to the 'current DA scheme' and the 'preferred Option F scheme', this potential is suitable for, but effectively confined to five 'stacks' of units in Building K facing east across the new park.

In addition, for 12 east facing Studio apartments in Building M, the depth of the POS appears to have been able to be adjusted, so that self shading is now reduced. These 12 additional apartments – Units 5 & 6 on Levels 2 through 7 – now comply for solar access.

I am satisfied that very few, if any additional units might present as potential candidates, and that these few are generally eliminated by other considerations such as external or mutual overshadowing.

The apartment layout changes have been implemented in amended plans, to which I now apply this new analysis.

## 2.2 Further reduction of Building K envelope

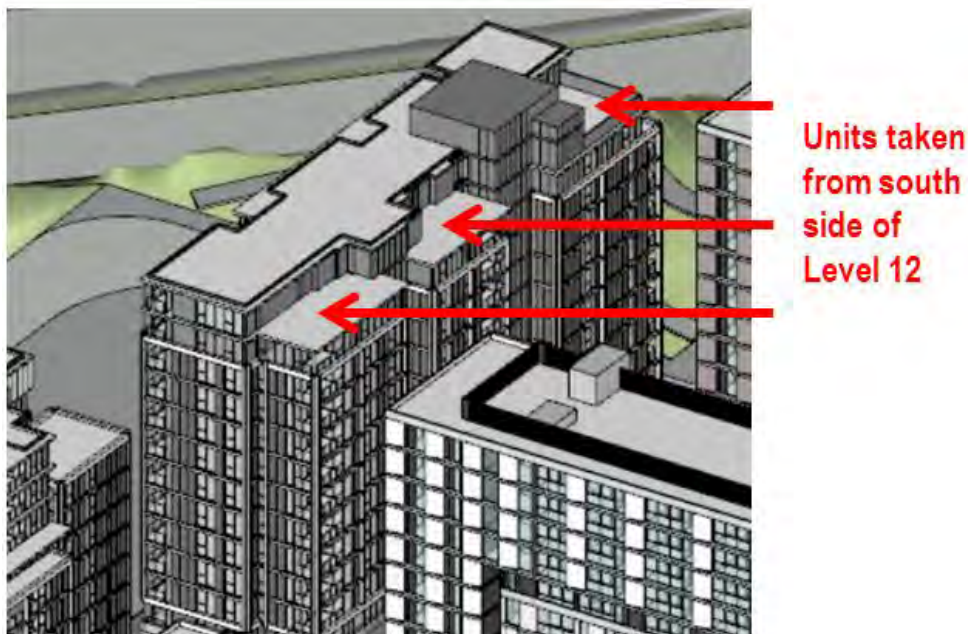


Figure 1: Further improved Option F

In generating the preferred Option F massing change, mismatch between overall floor plate sizes of the four buildings resulted in some excess GFA. This excess area is now eliminated by removing three apartments from the south side of Level 12 of Building K. It is expected that the new stepped



section of Building K will further reduce overshadowing of some apartments in Building M and Building L3, and marginally increase solar access availability for communal open space.

### 3.0 OUTCOMES OF FURTHER IMPROVEMENTS

The following summarise the impact of the further improvements described above.

#### 3.1 Apartments

Because in the preferred Option F, Building K is two stories lower, the benefits of the apartment layout changes are actually greater for the current DA scheme. On the other hand, the improved Option F benefits from the further reduction of the Building K envelope, while the current DA scheme does not.

The overall outcome for June 21 solar access compliance is summarised in Table 1. For simplicity, I include only the 'baseline' percentages for conventional glazing and POS compliance. More detailed numbers can be seen in the summary full analysis tables included as Appendix B.

|                       | DA Scheme    |              | Preferred Option F |                  |
|-----------------------|--------------|--------------|--------------------|------------------|
|                       | Previous     | Improved     | Previous           | Further improved |
| <b>Winter June 21</b> | <b>47.0%</b> | <b>54.4%</b> | <b>47.4%</b>       | <b>56.8%</b>     |
| Equinox Sep 21        | 15.4%        | 24.3%        | 11.9%              | 20.0%            |

**Table 1: June 21 and Equinox solar access**

For the record, Table 1 also shows the outcome of the same apartment layout improvements for the Equinox.

#### 3.2 Communal open space

##### 3.2.1 Winter

The improved Option F scheme presents further small but key improvements in solar access to communal open space, when compared to the current DA scheme. I update my previous estimated proportions sunlit spaces, in the same two categories annotated on Figure 2:

**Figure 2: Key plan. Shadows are at 10:30am June 21**



#### Key

- A** Conventional communal open space, potentially securable.
- B** Publicly accessible communal open space.

Table 3 summarizes the winter solar access for communal open spaces for the 'Current DA' and 'further improved Option F' schemes.

|      | WINTER     |       |                              |        |
|------|------------|-------|------------------------------|--------|
|      | CURRENT DA |       | FURTHER IMPROVED<br>OPTION F |        |
|      | A          | B     | A                            | B      |
| 0900 | 10%        | 65%*  | 10%                          | 65%*   |
| 0930 | <10%       | 75%   | <10%                         | 75%    |
| 1000 | <10%       | 75%   | <10%                         | 75%    |
| 1030 | 15%        | 60%   | <25%                         | 60%    |
| 1100 | 25%        | 30%   | 35%                          | 30%    |
| 1130 | >35%       | 25%   | >35%                         | 25%**  |
| 1200 | 20%        | 15%   | 20%                          | 15%**  |
| 1230 | 15%        | <15%  | 15%                          | <15%** |
| 1300 | 15%        | <10%  | 15%                          | <10%** |
| 1330 | <10%       | <5%   | <10%                         | <5%**  |
| 1400 |            | <5%   |                              | <10%** |
| 1430 |            | <5%** |                              | 10%**  |
| 1500 |            | <5%** |                              | <5%**  |

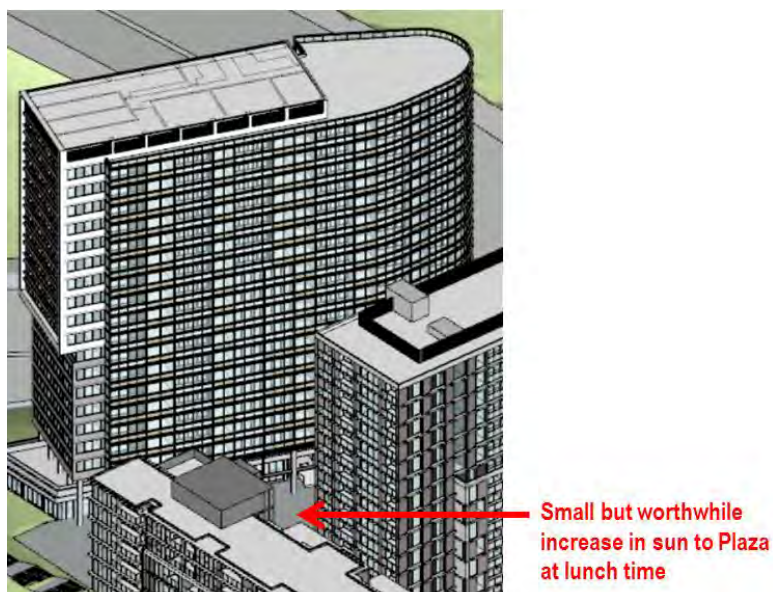
\* Plaza area >90%

\*\* Moving patch of additional sun to two shopfronts on south edge of plaza

Table 2: Summary of winter solar access for Current and preferred Option F schemes

The additional sunlit area is small and hard to quantify. But qualitatively, the improvement is recognisable and arguably significant. The stepped section of the top of Building K further increases the sunny area which transits the front of the cafes/shops at the base of Building M in the publicly accessible Plaza. See Figure 3.

Figure 3: Change in solar access to open space





### 3.2.2 Equinox

In contrast to the impact on sun access to living room glazing, the higher sun angles at the Equinox assure that communal open space is subject to much less shadowing by the bounding buildings, for extended periods in the morning and the middle of the day.

Figure 4 compares the views from the sun at noon for Option F. This effect is very similar for both current DA and improved Option F schemes.

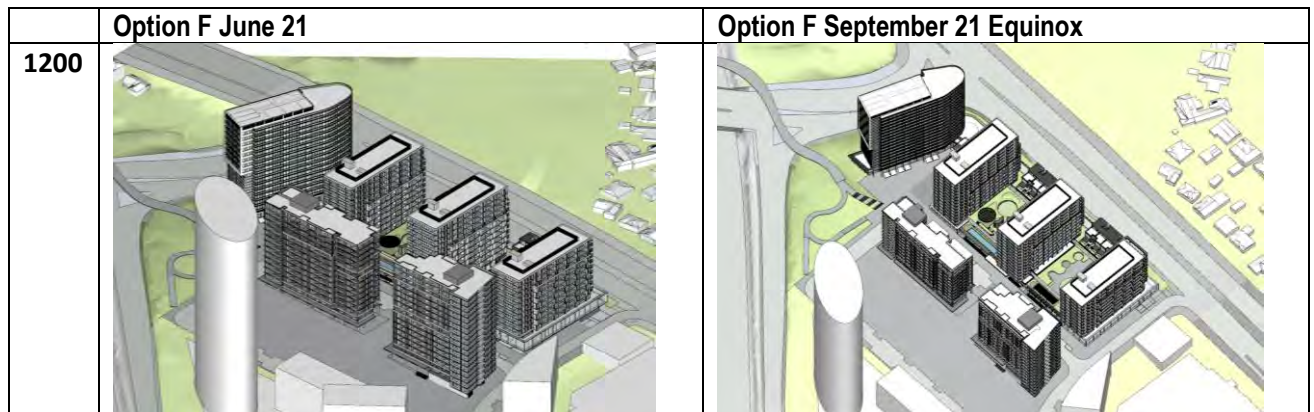


Figure 4: Comparison of winter and Equinox. 12pm views from the sun.

Table 4 records the proportion of the sunlit ground plane of the communal open spaces at the Equinox. In brief, at the Equinox all the communal open spaces are exposed to direct sun for periods well in excess of 2 hours, and for well in excess of 50% of their area. Differences between the Current DA and further improved Option F schemes are minor and almost negligible.

Table 3: Equinox sun exposure at ground plane of communal open spaces

|      | EQUINOX    |      |                   |      |
|------|------------|------|-------------------|------|
|      | CURRENT DA |      | IMPROVED OPTION F |      |
|      | A          | B    | A                 | B    |
| 900  | 60%        | 65%* | 70%               | 65%* |
| 930  | 70%        | 65%* | 75%               | 65%* |
| 1000 | 75%        | 80%* | 80%               | 80%* |
| 1030 | 85%        | 90%* | 90%               | 90%* |
| 1100 | 85%        | 85%  | 90%               | 85%  |
| 1130 | 75%        | 75%  | 75%               | 70%  |
| 1200 | 60%        | 55%  | 60%               | 50%  |
| 1230 | 35%        | 30%  | 35%               | 25%  |
| 1300 | <10%       | <10% | <10%              | <10% |
| 1330 | <5%        | <5%  | <5%               | <5%  |
| 1400 |            |      |                   |      |
| 1430 |            |      |                   |      |
| 1500 |            |      |                   |      |

\* Plaza area >90%

## 4.0 CONCLUSIONS

---

### 4.1 Sensitivity to changes in massing

As predicted by inference from the 3D model, *as the heights of Buildings J and K are reduced and the heights of Building M and Building L.3 are increased, there is an improvement in the overall percentage of apartments with complying solar access.* However, *the size of improvements is relatively very small.*

### 4.2 Changes to apartment layouts

The original DA peer review analysis, as well as recording 'baseline' compliance of individual apartments, provided other information relating to solar access opportunity – such as durations of direct sun to bedrooms. Based on this information, the architects identified a significant number of units in Building K, where re-planning the layout allowed those apartments to qualify for over two hours of sun on June 21.

In addition, a further smaller number of apartments in Building M can now also be considered complying, because resolved design of their POS reduces their self-shading.

*For overall solar access compliance of the apartments, the effect of these unit layout changes is much greater than the benefit of massing changes.*

It should be noted that the net benefit of apartment layout changes in Building K is actually greater for the current DA scheme. This is because Building K is two storeys taller than the Option F version.

### 4.3 Further changes to massing

The need to match the GFA of the preferred Option F to that of the current DA has been met by deleting three apartments on the shaded side of Level 12 in Building K, producing a stepped section. This incremental massing change removes some overshadowing of a number of apartments in Buildings M and L.3, further improving the Option F overall solar access compliance.

### 4.4 Cumulative effect on apartment compliance

***The cumulative effect of the massing changes and unit layout improvements is that the preferred Option F scheme is now predicted to achieve a baseline compliance for apartments of 56.8%.***

### 4.5 Cumulative effect on communal open space

Because the benefit of improved unit layouts is actually slightly greater for the current DA scheme, it cancels out part of the benefit of the massing changes in Option F.

But the benefit of the Option F scheme is an additional improvement in winter solar access for communal open space. This improvement is most obvious in the *increased area of sun at ground level for the 'eastern courtyard'* between buildings L.2 and L.3, almost entirely caused by the reduction in height of Building K.

The massing change also introduces *a small area of sun between 1130 and 1330 into the southern portion of the plaza* between Buildings L.3 and M. This sun patch is approximately the width of two



shopfronts, and ‘travels’ during the day along the base of Building M. Though small, it is a non-trivial improvement in winter amenity for those premises. The stepped section of Building K in the improved Option F further slightly increases the size of this sun patch.

*Taken together, these improvements in winter solar access to communal open space are not large, but may be considered to be of significant benefit.*











As reported earlier, at the Equinox all the communal open spaces are exposed to direct sun for periods well in excess of 2 hours, and for well in excess of 50% of their area. For all intents and purposes, this is not further changed.

## A.0 APPENDIX A: Views from the sun











Comparison of views from the sun on a half hourly basis for June 21, for the current DA scheme and improved Option F.

|      | CURRENT DA | IMPROVED OPTION F |
|------|------------|-------------------|
| 0800 |            |                   |
| 0830 |            |                   |
| 0900 |            |                   |
| 0930 |            |                   |
| 1000 |            |                   |







|      | CURRENT DA  | IMPROVED OPTION F  |
|------|---|--|
| 1030 |    |    |
| 1100 |    |    |
| 1130 |   |   |
| 1200 |  |  |
| 1230 |  |  |



|      | CURRENT DA  | IMPROVED OPTION F  |
|------|---|--|
| 1300 |    |    |
| 1330 |    |    |
| 1400 |   |   |
| 1430 |  |  |
| 1500 |  |  |



|      | CURRENT DA  | IMPROVED OPTION F  |
|------|---|--|
| 1530 |  |  |
| 1600 |  |  |

## **B.0 APPENDIX B: SUMMARY DETAILED COMPLIANCE TABLES**

---

Building and block level *summaries* of the detailed compliance tables for Current DA scheme and the improved preferred Option F, for June 21. These summaries derive from updated spreadsheets of unit by unit assessment of solar access.



| CURRENT DA WINTER   |                  |                        |            |               |           |              |        |           |                        |                        |       |
|---------------------|------------------|------------------------|------------|---------------|-----------|--------------|--------|-----------|------------------------|------------------------|-------|
| LOT 104 BUILDING L1 |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 126                 | 65               | 10                     | 0          | 0             | 0         | 0            | 41     | 41        | 75                     | 0                      |       |
|                     | 51.6%            | 7.9%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 32.5%  | 32.5%     | 59.5%                  | 0.0%                   |       |
|                     |                  | 59.5%                  |            |               |           |              |        |           |                        | 59.5%                  |       |
|                     |                  |                        | 59.5%      | 0.0%          | 59.5%     | 0.0%         |        |           |                        |                        |       |
| LOT 104 BUILDING L2 |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 136                 | 40               | 12                     | 6          | 1             | 1         | 1            | 48     | 47        | 58                     | 2                      |       |
|                     | 29.4%            | 8.8%                   | 4.4%       | 0.7%          | 0.7%      | 0.7%         | 35.3%  | 34.6%     | 42.6%                  | 1.5%                   |       |
|                     |                  | 38.2%                  |            |               |           |              |        |           |                        | 44.1%                  |       |
|                     |                  |                        | 42.6%      | 0.7%          | 43.4%     | 1.5%         |        |           |                        |                        |       |
| LOT 104 BUILDING L3 |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 128                 | 21               | 7                      | 20         | 1             | 2         | 0            | 45     | 44        | 48                     | 2                      |       |
|                     | 16.4%            | 5.5%                   | 15.6%      | 0.8%          | 1.6%      | 0.0%         | 35.2%  | 34.4%     | 37.5%                  | 1.6%                   |       |
|                     |                  | 21.9%                  |            |               |           |              |        |           |                        | 39.1%                  |       |
|                     |                  |                        | 37.5%      | 0.8%          | 39.1%     | 0.8%         |        |           |                        |                        |       |
| LOT 104 BUILDING M  |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 173                 | 86               | 4                      | 9          | 45            | 29        | 3            | 21     | 18        | 99                     | 32                     |       |
|                     | 49.7%            | 2.3%                   | 5.2%       | 26.0%         | 16.8%     | 1.7%         | 12.1%  | 10.4%     | 57.2%                  | 18.5%                  |       |
|                     |                  | 52.0%                  |            |               |           |              |        |           |                        | 75.7%                  |       |
|                     |                  |                        | 57.2%      | 26.0%         | 74.0%     | 27.7%        |        |           |                        |                        |       |
| LOT 104 BUILDING L4 |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 4                   | 0                | 0                      | 0          | 0             | 0         | 0            | 0      | 0         | 0                      | 0                      |       |
|                     | 0.0%             | 0.0%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 0.0%   | 0.0%      | 0.0%                   | 0.0%                   |       |
|                     |                  | 0.0%                   |            |               |           |              |        |           |                        | 0.0%                   |       |
|                     |                  |                        | 0.0%       | 0.0%          | 0.0%      | 0.0%         |        |           |                        |                        |       |
| LOT 104 BUILDING L5 |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 4                   | 0                | 0                      | 0          | 0             | 0         | 0            | 0      | 0         | 0                      | 0                      |       |
|                     | 0.0%             | 0.0%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 0.0%   | 0.0%      | 0.0%                   | 0.0%                   |       |
|                     |                  | 0.0%                   |            |               |           |              |        |           |                        | 0.0%                   |       |
|                     |                  |                        | 0.0%       | 0.0%          | 0.0%      | 0.0%         |        |           |                        |                        |       |
| LOT 104 - TOTAL     |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |       |
| 571                 | 212              | 33                     | 35         | 47            | 32        | 4            | 155    | 150       | 280                    | 36                     |       |
|                     | 37.1%            | 5.8%                   | 6.1%       | 8.2%          | 5.6%      | 0.7%         | 27.1%  | 26.3%     | 49.0%                  | 6.3%                   |       |
|                     |                  | 42.9%                  |            |               |           |              |        |           |                        | 55.3%                  |       |
|                     |                  |                        | 49.0%      | 8.2%          | 54.6%     | 8.9%         |        |           |                        |                        |       |
|                     |                  |                        |            | 57.3%         |           | 63.6%        |        |           |                        |                        |       |
| LOT 105 BUILDING J  |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 163                 | 76               | 25                     | 2          | 0             | 13        | 0            | 37     | 37        | 119                    | 0                      |       |
|                     | 46.6%            | 15.3%                  | 1.2%       | 0.0%          | 8.0%      | 0.0%         | 22.7%  | 22.7%     | 73.0%                  | 0.0%                   |       |
|                     |                  | 62.0%                  |            |               |           |              |        |           |                        | 73.0%                  |       |
|                     |                  |                        | 63.2%      | 0.0%          | 71.2%     | 0.0%         |        |           |                        |                        |       |
| LOT 105 BUILDING K  |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 145                 | 7                | 11                     | 12         | 0             | 36        | 0            | 37     | 37        | 30                     | 36                     |       |
|                     | 4.8%             | 7.6%                   | 8.3%       | 0.0%          | 24.8%     | 0.0%         | 25.5%  | 25.5%     | 20.7%                  | 24.8%                  |       |
|                     |                  | 12.4%                  |            |               |           |              |        |           |                        | 45.5%                  |       |
|                     |                  |                        | 20.7%      | 0.0%          | 45.5%     | 0.0%         |        |           |                        |                        |       |
| LOT 105 - TOTAL     |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |       |
| 308                 | 83               | 36                     | 14         | 0             | 49        | 0            | 74     | 74        | 149                    | 36                     |       |
|                     | 26.9%            | 11.7%                  | 4.5%       | 0.0%          | 15.9%     | 0.0%         | 24.0%  | 24.0%     | 48.4%                  | 11.7%                  |       |
|                     |                  | 38.6%                  |            |               |           |              |        |           |                        | 60.1%                  |       |
|                     |                  |                        | 43.2%      | 0.0%          | 59.1%     | 0.0%         |        |           |                        |                        |       |
|                     |                  |                        |            | 43.2%         |           | 59.1%        |        |           |                        |                        |       |
| PRECINCT - TOTAL    |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |       |
| 879                 | 295              | 69                     | 49         | 47            | 81        | 4            | 229    | 224       | 429                    | 72                     |       |
|                     | 33.6%            | 7.8%                   | 5.6%       | 5.3%          | 9.2%      | 0.5%         | 26.1%  | 25.5%     | 48.8%                  | 8.2%                   |       |
|                     |                  | 41.4%                  |            |               |           |              |        |           |                        | 57.0%                  |       |
|                     |                  |                        | 47.0%      | 5.3%          | 56.2%     | 5.8%         |        |           |                        |                        |       |
|                     |                  |                        |            | 52.3%         |           | 62.0%        |        |           |                        |                        |       |

| CURRENT DA WINTER IMPROVED |                  |                        |            |               |           |              |        |           |                        |                        |       |
|----------------------------|------------------|------------------------|------------|---------------|-----------|--------------|--------|-----------|------------------------|------------------------|-------|
| LOT 104 BUILDING L1        |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 126                        | 65               | 10                     | 0          | 0             | 0         | 0            | 41     | 41        | 75                     | 0                      |       |
|                            | 51.6%            | 7.9%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 32.5%  | 32.5%     | 59.5%                  | 0.0%                   |       |
|                            |                  | 59.5%                  |            |               |           |              |        |           |                        | 59.5%                  |       |
|                            |                  |                        | 59.5%      | 0.0%          | 59.5%     | 0.0%         |        |           |                        |                        |       |
| LOT 104 BUILDING L2        |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 136                        | 40               | 12                     | 6          | 1             | 1         | 1            | 48     | 47        | 58                     | 2                      |       |
|                            | 29.4%            | 8.8%                   | 4.4%       | 0.7%          | 0.7%      | 0.7%         | 35.3%  | 34.6%     | 42.6%                  | 1.5%                   |       |
|                            |                  | 38.2%                  |            |               |           |              |        |           |                        | 44.1%                  |       |
|                            |                  |                        | 42.6%      | 0.7%          | 43.4%     | 1.5%         |        |           |                        |                        |       |
| LOT 104 BUILDING L3        |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 128                        | 21               | 7                      | 20         | 1             | 2         | 0            | 45     | 44        | 48                     | 2                      |       |
|                            | 16.4%            | 5.5%                   | 15.6%      | 0.8%          | 1.6%      | 0.0%         | 35.2%  | 34.4%     | 37.5%                  | 1.6%                   |       |
|                            |                  | 21.9%                  |            |               |           |              |        |           |                        | 39.1%                  |       |
|                            |                  |                        | 37.5%      | 0.8%          | 39.1%     | 0.8%         |        |           |                        |                        |       |
| LOT 104 BUILDING M         |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 173                        | 86               | 4                      | 9          | 45            | 29        | 3            | 21     | 18        | 99                     | 32                     |       |
|                            | 49.7%            | 2.3%                   | 5.2%       | 26.0%         | 16.8%     | 1.7%         | 12.1%  | 10.4%     | 57.2%                  | 18.5%                  |       |
|                            |                  | 52.0%                  |            |               |           |              |        |           |                        | 75.7%                  |       |
|                            |                  |                        | 57.2%      | 26.0%         | 74.0%     | 27.7%        |        |           |                        |                        |       |
| LOT 104 BUILDING L4        |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 4                          | 0                | 0                      | 0          | 0             | 0         | 0            | 0      | 0         | 0                      | 0                      |       |
|                            | 0.0%             | 0.0%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 0.0%   | 0.0%      | 0.0%                   | 0.0%                   |       |
|                            |                  | 0.0%                   |            |               |           |              |        |           |                        | 0.0%                   |       |
|                            |                  |                        | 0.0%       | 0.0%          | 0.0%      | 0.0%         |        |           |                        |                        |       |
| LOT 104 BUILDING L5        |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 4                          | 0                | 0                      | 0          | 0             | 0         | 0            | 0      | 0         | 0                      | 0                      |       |
|                            | 0.0%             | 0.0%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 0.0%   | 0.0%      | 0.0%                   | 0.0%                   |       |
|                            |                  | 0.0%                   |            |               |           |              |        |           |                        | 0.0%                   |       |
|                            |                  |                        | 0.0%       | 0.0%          | 0.0%      | 0.0%         |        |           |                        |                        |       |
| LOT 104 - TOTAL            |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |       |
| 571                        | 212              | 33                     | 35         | 47            | 32        | 4            | 155    | 150       | 280                    | 36                     |       |
|                            | 37.1%            | 5.8%                   | 6.1%       | 8.2%          | 5.6%      | 0.7%         | 27.1%  | 26.3%     | 49.0%                  | 6.3%                   |       |
|                            |                  | 42.9%                  |            |               |           |              |        |           |                        | 55.3%                  |       |
|                            |                  |                        | 49.0%      | 8.2%          | 54.6%     | 8.9%         |        |           |                        |                        |       |
|                            |                  |                        |            | 57.3%         |           | 63.6%        |        |           |                        |                        |       |
| LOT 105 BUILDING J         |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 163                        | 76               | 25                     | 2          | 0             | 13        | 0            | 37     | 37        | 119                    | 0                      |       |
|                            | 46.6%            | 15.3%                  | 1.2%       | 0.0%          | 8.0%      | 0.0%         | 22.7%  | 22.7%     | 73.0%                  | 0.0%                   |       |
|                            |                  | 62.0%                  |            |               |           |              |        |           |                        | 73.0%                  |       |
|                            |                  |                        | 63.2%      | 0.0%          | 71.2%     | 0.0%         |        |           |                        |                        |       |
| LOT 105 BUILDING K         |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | Solar compliance |                        |            |               |           |              |        |           |                        |                        |       |
| UNIT                       | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 | Notes |
| 145                        | 39               | 34                     | 22         | 0             | 1         | 0            | 37     | 37        | 95                     | 1                      |       |
|                            | 26.9%            | 23.4%                  | 15.2%      | 0.0%          | 0.7%      | 0.0%         | 25.5%  | 25.5%     | 65.5%                  | 0.7%                   |       |
|                            |                  | 50.3%                  |            |               |           |              |        |           |                        | 66.2%                  |       |
|                            |                  |                        | 65.5%      | 0.0%          | 66.2%     | 0.0%         |        |           |                        |                        |       |
| LOT 105 - TOTAL            |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |       |
| 308                        | 115              | 59                     | 24         | 0             | 14        | 0            | 74     | 74        | 214                    | 1                      |       |
|                            | 37.3%            | 19.2%                  | 7.8%       | 0.0%          | 4.5%      | 0.0%         | 24.0%  | 24.0%     | 69.5%                  | 0.3%                   |       |
|                            |                  | 56.5%                  |            |               |           |              |        |           |                        | 69.8%                  |       |
|                            |                  |                        | 64.3%      | 0.0%          | 68.8%     | 0.0%         |        |           |                        |                        |       |
|                            |                  |                        |            | 64.3%         |           | 68.8%        |        |           |                        |                        |       |
| PRECINCT - TOTAL           |                  |                        |            |               |           |              |        |           |                        |                        |       |
|                            | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |       |
| 879                        | 327              | 92                     | 59         | 47            | 46        | 4            | 229    | 224       | 494                    | 37                     |       |
|                            | 37.2%            | 10.5%                  | 6.7%       | 5.3%          | 5.2%      | 0.5%         | 26.1%  | 25.5%     | 56.2%                  | 4.2%                   |       |
|                            |                  | 47.7%                  |            |               |           |              |        |           |                        | 60.4%                  |       |
|                            |                  |                        | 54.4%      | 5.3%          | 59.6%     | 5.8%         |        |           |                        |                        |       |
|                            |                  |                        |            | 59.7%         |           | 65.4%        |        |           |                        |                        |       |



| IMPROVED OPTION F WINTER |                  |                        |            |               |           |              |        |           |                        |                        |
|--------------------------|------------------|------------------------|------------|---------------|-----------|--------------|--------|-----------|------------------------|------------------------|
| LOT 104 BUILDING L1      |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 126                      | 66               | 10                     | 1          | 0             | 0         | 0            | 41     | 41        | 77                     | 0                      |
|                          | 52.4%            | 7.9%                   | 0.8%       | 0.0%          | 0.0%      | 0.0%         | 32.5%  | 32.5%     | 61.1%                  | 0.0%                   |
|                          |                  | 60.3%                  |            |               |           |              |        |           |                        | 61.1%                  |
|                          |                  |                        | 61.1%      | 0.0%          | 61.1%     | 0.0%         |        |           |                        |                        |
| LOT 104 BUILDING L2      |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 136                      | 42               | 12                     | 7          | 1             | 1         | 1            | 48     | 47        | 61                     | 2                      |
|                          | 30.9%            | 8.8%                   | 5.1%       | 0.7%          | 0.7%      | 0.7%         | 35.3%  | 34.6%     | 44.9%                  | 1.5%                   |
|                          |                  | 39.7%                  |            |               |           |              |        |           |                        | 46.3%                  |
|                          |                  |                        | 44.9%      | 0.7%          | 45.6%     | 1.5%         |        |           |                        |                        |
| LOT 104 BUILDING L3      |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 148                      | 38               | 11                     | 23         | 1             | 2         | 0            | 51     | 50        | 72                     | 2                      |
|                          | 25.7%            | 7.4%                   | 15.5%      | 0.7%          | 1.4%      | 0.0%         | 34.5%  | 33.8%     | 48.6%                  | 1.4%                   |
|                          |                  | 33.1%                  |            |               |           |              |        |           |                        | 50.0%                  |
|                          |                  |                        | 48.6%      | 0.7%          | 50.0%     | 0.7%         |        |           |                        |                        |
| LOT 104 BUILDING M       |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 191                      | 98               | 9                      | 10         | 32            | 14        | 5            | 25     | 21        | 117                    | 19                     |
|                          | 51.3%            | 4.7%                   | 5.2%       | 16.8%         | 7.3%      | 2.6%         | 13.1%  | 11.0%     | 61.3%                  | 9.9%                   |
|                          |                  | 56.0%                  |            |               |           |              |        |           |                        | 71.2%                  |
|                          |                  |                        | 61.3%      | 16.8%         | 68.6%     | 19.4%        |        |           |                        |                        |
| LOT 104 BUILDING L4      |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 4                        | 0                | 0                      | 0          | 0             | 0         | 0            | 0      | 0         | 0                      | 0                      |
|                          | 0.0%             | 0.0%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 0.0%   | 0.0%      | 0.0%                   | 0.0%                   |
|                          |                  | 0.0%                   |            |               |           |              |        |           |                        | 0.0%                   |
|                          |                  |                        | 0.0%       | 0.0%          | 0.0%      | 0.0%         |        |           |                        |                        |
| LOT 104 BUILDING L5      |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 4                        | 0                | 0                      | 0          | 0             | 0         | 0            | 0      | 0         | 0                      | 0                      |
|                          | 0.0%             | 0.0%                   | 0.0%       | 0.0%          | 0.0%      | 0.0%         | 0.0%   | 0.0%      | 0.0%                   | 0.0%                   |
|                          |                  | 0.0%                   |            |               |           |              |        |           |                        | 0.0%                   |
|                          |                  |                        | 0.0%       | 0.0%          | 0.0%      | 0.0%         |        |           |                        |                        |
| LOT 104 - TOTAL          |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 609                      | 244              | 42                     | 41         | 34            | 17        | 6            | 165    | 159       | 327                    | 23                     |
|                          | 40.1%            | 6.9%                   | 6.7%       | 5.6%          | 2.8%      | 1.0%         | 27.1%  | 26.1%     | 53.7%                  | 3.8%                   |
|                          |                  | 47.0%                  |            |               |           |              |        |           |                        | 57.5%                  |
|                          |                  |                        | 53.7%      | 5.6%          | 56.5%     | 6.6%         |        |           |                        |                        |
|                          |                  |                        | 59.3%      |               |           | 63.1%        |        |           |                        |                        |
| LOT 105 BUILDING J       |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 146                      | 70               | 19                     | 2          | 0             | 11        | 0            | 35     | 35        | 105                    | 0                      |
|                          | 47.9%            | 13.0%                  | 1.4%       | 0.0%          | 7.5%      | 0.0%         | 24.0%  | 24.0%     | 71.9%                  | 0.0%                   |
|                          |                  | 61.0%                  |            |               |           |              |        |           |                        | 71.9%                  |
|                          |                  |                        | 62.3%      | 0.0%          | 69.9%     | 0.0%         |        |           |                        |                        |
| LOT 105 BUILDING K       |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | Solar compliance |                        |            |               |           |              |        |           |                        |                        |
| UNIT                     | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 124                      | 28               | 32                     | 21         | 0             | 1         | 0            | 31     | 31        | 81                     | 1                      |
|                          | 22.6%            | 25.8%                  | 16.9%      | 0.0%          | 0.8%      | 0.0%         | 25.0%  | 25.0%     | 65.3%                  | 0.8%                   |
|                          |                  | 48.4%                  |            |               |           |              |        |           |                        | 66.1%                  |
|                          |                  |                        | 65.3%      | 0.0%          | 66.1%     | 0.0%         |        |           |                        |                        |
| LOT 105 - TOTAL          |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 270                      | 98               | 51                     | 23         | 0             | 12        | 0            | 66     | 66        | 186                    | 1                      |
|                          | 36.3%            | 18.9%                  | 8.5%       | 0.0%          | 4.4%      | 0.0%         | 24.4%  | 24.4%     | 68.9%                  | 0.4%                   |
|                          |                  | 55.2%                  |            |               |           |              |        |           |                        | 69.3%                  |
|                          |                  |                        | 63.7%      | 0.0%          | 68.1%     | 0.0%         |        |           |                        |                        |
|                          |                  |                        | 63.7%      |               |           | 68.1%        |        |           |                        |                        |
| PRECINCT - TOTAL         |                  |                        |            |               |           |              |        |           |                        |                        |
|                          | >3 hrs 9-3       | >2 hrs 9-3 (>3hrs 8-4) | >2 hrs 9-3 | >2 hrs 9-3 WG | >2hrs 8-4 | >2hrs 8-4 WG | No sun | No sun WG | Private Open Space 9-3 | Private Open Space 8-4 |
| 879                      | 342              | 93                     | 64         | 34            | 29        | 6            | 231    | 225       | 513                    | 24                     |
|                          | 38.9%            | 10.6%                  | 7.3%       | 3.9%          | 3.3%      | 0.7%         | 26.3%  | 25.6%     | 58.4%                  | 2.7%                   |
|                          |                  | 49.5%                  |            |               |           |              |        |           |                        | 61.1%                  |
|                          |                  |                        | 56.8%      | 3.9%          | 60.1%     | 4.6%         |        |           |                        |                        |
|                          |                  |                        |            | 60.6%         |           | 64.6%        |        |           |                        |                        |



## **ATTACHMENT B – DESIGN STATEMENT, PREPARED BY TURNER STUDIO**



# TURNER

## LACHLAN'S LINE for Greenland

**2017SNH012 – Ryde – LDA2016/0395**  
**25-27 Epping Road Macquarie Park**  
**16063 Lot 104 and 15039 Lot 105**

RESPONSE TO SYDNEY NORTH PLANNING PANEL RECORDS OF DEFERRAL  
DATED 9 AUGUST 2017 & 27 SEPTEMBER 2017  
13 October 2017

### Introduction

The following statement outlines the responses to the architectural components associated with the Sydney North Planning Panel Records of Deferral dated 9 August and 27 September 2017.

### SYDNEY NORTH PLANNING PANEL

The Planning Panel's main concern in the initial deferral dated 9 August was solar access to apartments/balconies and communal open space. Steve King was appointed as an independent consultant to review this solar access consistent with ADG principles for the combined sites Lot 104 and Lot 105.

The second deferral dated 27 September focused on optimising solar access to apartments on both Lots and major communal open spaces by suggesting modification of apartment plans where possible and possibly reducing heights of buildings on Lot 105 and increasing the heights of buildings on Lot 104.

Therefore, as a team, we investigated a number of iterations of amended plans. The final two options are as follows :

#### Option 1

Maintain the current DA configuration with the exception of Building K on Lot 105 where we have replanned 66 apartments to improve solar access to the Living Rooms. This significantly improves solar to this building as noted in Steve King's report. There is also minimal change to the original DA and no change on Lot 104 – these buildings already optimise solar access.

#### Option 2

This option maintains the replanned apartments in Building K from option 1 and deletes 2 floors from Building J, 2 and a half floors from Building K and adds two floors to Buildings L3 and M on Lot 104.

This option maintains the brick parapet line at Level 10 on buildings L1, L2 and L3 as shown on drawing DA07.001K, the view from Epping Road. This also shows how the buildings now gradually step up along the site with each building getting progressively higher as you move along from building L1 to M. You can also see that the two additional floors onto buildings L3 are below the 57m height limit and building M is only one storey plus plant/stair/lift over-run above the height limit. This increase will be dealt with by Urbis and their Clause 4.6 variation request.

The removal of two full floors from Buildings J & two and a half from K improves the solar access to the major communal spaces as well as improving solar access to apartments on Lot 104. There is a very minor increase in shadows to the surrounding areas but this has been dealt with by Urbis's report.

In addition the addition of two floors onto building's L3 and M will have least amount of structural impact on those buildings.

In terms of solar for we defer to Steve King's solar access sensitivity study that demonstrates the optimisation of the development with minimal impact on surrounding areas.