DECISION OF 3734th COUNCIL MEETING
HELD ON MONDAY 27 JULY 2020

8.17. Planning Proposal No. 3/18 - 50-56 Atchison Street, St Leonards

AUTHOR: Nigel Riley, Strategic Planner

To advise Council on the Planning Proposal for 50-56 Atchison Street, St Leonards, including accompanying draft Voluntary Planning Agreement, and provide recommendations to proceed.

On 6 April 2018, Council received a Planning Proposal to amend North Sydney Local Environmental Plan 2013 (NSLEP 2013) as it relates to land at 50-56 Atchison Street, St Leonards. The site is located within the St Leonards and Crows Nest 'Planning Precinct' established by the Department of Planning, Industry and Environment (DPIE) in July 2016. The Planning Proposal seeks to:

- increase the maximum building height control applying to the site from 20m to 58.1m(RL147.1);
- increase the non-residential floor space ratio (FSR) control for the site from 0.6:1 to 1.7:1;and
- establish an overall maximum (FSR) control for the site of 6.4:1.

The indicative concept scheme accompanying the Planning Proposal seeks to provide a 16 storey mixed-use commercial and residential building which is consistent with Council's endorsed *St Leonards/Crows Nest Planning Study – Precincts 2 and 3* (Planning Study) and the DPIE's *draft St Leonards and Crows Nest 2036 Plan* (draft 2036 Plan).

The Planning Proposal, as submitted, seeks to increase the maximum building height to RL 147.1, which could potentially result in a building greater than 16 storeys. The Planning Proposal should be amended to reflect a maximum height of 56m to ensure consistency with Council's Planning Study and the DPIE's draft 2036 Plan is ultimately achieved.

The North Sydney Local Planning Panel considered the Planning Proposal on 1 July 2020 (minutes attached) and endorses it to progress to a Gateway Determination, subject to the provision of a special clause for the height of the building to exclude the lift overrun for access to the communal rooftop.

The Planning Proposal is accompanied by a draft Voluntary Planning Agreement (VPA) comprising monetary and in-kind contributions towards public community infrastructure in theprecinct.

Having completed an assessment of the Planning Proposal and draft VPA against Council's Study and the DPIE's draft 2036 Plan and relevant Regional and District Plans, it is recommended that, subject to the above amendment to the maximum building height control and the addition of a special clause with the effect of achieving the NSLPP's recommendation,the Planning Proposal be supported to proceed to Gateway Determination.

To further investigate opportunities to reduce car reliance and ownership in favour of sustainable transport choices, it is recommended that a draft Green Travel Plan be prepared by the applicant prior to commencement of public exhibition of this Planning Proposal, addressingmatters detailed in section 7.6.4 of this report.

The Planning Proposal and draft VPA should then be exhibited concurrently, so as to allow thecommunity a full understanding of what is being proposed.

The Planning Proposal is accompanied by a draft Voluntary Planning Agreement (VPA) that proposes to provide monetary and in-kind contributions to Council. These include:

- provision of a 5.6m wide and 7.2 -7.5m high through-site link from Atchison Street toAtchison Lane, with an easement for public access between 6am to 11pm; and
- a monetary contribution of $1.4 million to Council for open space upgrades within thePrecinct.

RECOMMENDATION:

1. THAT the Planning Proposal be amended to Council's satisfaction addressing the recommendations outlined in this report, specifically a maximum building height control of 56m, and that a special clause be included with the effect of clarifying that this control may bereasonably exceeded for those portions of the building designed to provide access to acommunal rooftop.

2. THAT upon satisfactory negotiation of the contents and detailed terms of the draft VPA andcompletion of Recommendation 1, the General Manager be provided with delegated authority to forward the Planning Proposal in accordance with Section 3.34 of the Environmental Planning and Assessment Act 1979 seeking a Gateway Determination.

3. THAT the applicant be requested to prepare a draft Green Travel Plan prior to commencement of public exhibition.

4. THAT upon receipt of a Gateway Determination, the associated draft VPA be exhibited concurrently with the subject Planning Proposal.

This Item was adopted By Exception (see page 5).

The Recommendation was moved by Councillor Barbour and seconded by Councillor Brodie.The Motion was put and **Carried**.

Voting was as follows: For/Against 8 / 0

For:	Councillor Gibson, Councillor Beregi, Councillor Keen, Councillor Brodie, Councillor Barbour, Councillor Drummond, Councillor Mutton, Councillor Baker
Against:	nil
Absent:	Councillor Carr and Councillor Gunning

87. RESOLVED:

1. THAT the Planning Proposal be amended to Council's satisfaction addressing the recommendations outlined in this report, specifically a maximum building height control of 56m, and that a special clause be included with the effect of clarifying that this control may bereasonably exceeded for those portions of the building designed to provide access to acommunal rooftop.

2. THAT upon satisfactory negotiation of the contents and detailed terms of the draft VPA andcompletion of Recommendation 1, the General Manager be provided with delegated authority

to forward the Planning Proposal in accordance with Section 3.34 of the Environmental Planning and Assessment Act 1979 seeking a Gateway Determination.

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8.17. Planning Proposal No. 3/18 - 50-56 Atchison Street, St Leonards

AUTHOR: Nigel Riley, Strategic Planner

ENDORSED BY: Joseph Hill, Director City Strategy

ATTACHMENTS:
1. Attachment 1 - Planning Proposal [**8.17.1** - 64 pages]
2. Attachment 1 A - Appendix A Concept Design Report [**8.17.2** - 35 pages]
3. Attachment 1 B - Appendix B Concept Architectural Plans [**8.17.3** - 14 pages]
4. Attachment 1 C - Appendix C Transport Impact Assessment [**8.17.4** - 41 pages]
5. Attachment 1 D - Appendix D Waste Management Plan [**8.17.5** - 34 pages]
6. Attachment 1 E - Appendix E Building Services Report [**8.17.6** - 22 pages]
7. Attachment 2 - NSLPP Minutes 1 July 2020 [**8.17.7** - 4 pages]

PURPOSE:

To advise Council on the Planning Proposal for 50-56 Atchison Street, St Leonards, including accompanying draft Voluntary Planning Agreement, and provide recommendations to proceed.

EXECUTIVE SUMMARY:

On 6 April 2018, Council received a Planning Proposal to amend North Sydney Local Environmental Plan 2013 (NSLEP 2013) as it relates to land at 50-56 Atchison Street, St Leonards. The site is located within the St Leonards and Crows Nest 'Planning Precinct' established by the Department of Planning, Industry and Environment (DPIE) in July 2016. The Planning Proposal seeks to:

- increase the maximum building height control applying to the site from 20m to 58.1m (RL147.1);
- increase the non-residential floor space ratio (FSR) control for the site from 0.6:1 to 1.7:1; and
- establish an overall maximum (FSR) control for the site of 6.4:1.

The indicative concept scheme accompanying the Planning Proposal seeks to provide a 16 storey mixed-use commercial and residential building which is consistent with Council's endorsed *St Leonards/Crows Nest Planning Study – Precincts 2 and 3* (Planning Study) and the DPIE's *draft St Leonards and Crows Nest 2036 Plan* (draft 2036 Plan).

The Planning Proposal, as submitted, seeks to increase the maximum building height to RL 147.1, which could potentially result in a building greater than 16 storeys. The Planning Proposal should be amended to reflect a maximum height of 56m to ensure consistency with Council's Planning Study and the DPIE's draft 2036 Plan is ultimately achieved.

The North Sydney Local Planning Panel considered the Planning Proposal on 1 July 2020 (minutes attached) and endorses it to progress to a Gateway Determination, subject to the provision of a special clause for the height of the building to exclude the lift overrun for access to the communal rooftop.

The Planning Proposal is accompanied by a draft Voluntary Planning Agreement (VPA) comprising monetary and in-kind contributions towards public community infrastructure in the precinct.

Having completed an assessment of the Planning Proposal and draft VPA against Council's Study and the DPIE's draft 2036 Plan and relevant Regional and District Plans, it is recommended that, subject to the above amendment to the maximum building height control and the addition of a special clause with the effect of achieving the NSLPP's recommendation, the Planning Proposal be supported to proceed to Gateway Determination.

To further investigate opportunities to reduce car reliance and ownership in favour of sustainable transport choices, it is recommended that a draft Green Travel Plan be prepared by the applicant prior to commencement of public exhibition of this Planning Proposal, addressing matters detailed in section 7.6.4 of this report.

The Planning Proposal and draft VPA should then be exhibited concurrently, so as to allow the community a full understanding of what is being proposed.

FINANCIAL IMPLICATIONS:

The Planning Proposal is accompanied by a draft Voluntary Planning Agreement (VPA) that proposes to provide monetary and in-kind contributions to Council. These include:

- provision of a 5.6m wide and 7.2 -7.5m high through-site link from Atchison Street to Atchison Lane, with an easement for public access between 6am to 11pm; and
- a monetary contribution of $1.4 million to Council for open space upgrades within the Precinct.

RECOMMENDATION:

1. THAT the Planning Proposal be amended to Council's satisfaction addressing the recommendations outlined in this report, specifically a maximum building height control of 56m, and that a special clause be included with the effect of clarifying that this control may be reasonably exceeded for those portions of the building designed to provide access to a communal rooftop.

2. THAT upon satisfactory negotiation of the contents and detailed terms of the draft VPA and completion of Recommendation 1, the General Manager be provided with delegated authority to forward the Planning Proposal in accordance with Section 3.34 of the Environmental Planning and Assessment Act 1979 seeking a Gateway Determination.

3. THAT the applicant be requested to prepare a draft Green Travel Plan prior to commencement of public exhibition.

4. THAT upon receipt of a Gateway Determination, the associated draft VPA be exhibited concurrently with the subject Planning Proposal.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

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BACKGROUND

Pre-lodgement Discussions

On 30 June 2015, the applicant first approached Council with a concept to amalgamate the two sites comprising 50 and 52-56 Atchison Street and develop a 16 storey mixed-use tower on the site. It was generally agreed that such a proposal may have merit in line with strategic planning work undertaken in the locality. In a letter dated 9 September 2015, Council provided comments to assist in the refinement of the scheme so that the matter could be referred to the Design Excellence Panel for consideration.

In October 2015, the applicant responded with a revised concept scheme for discussion. Council Officers met with the applicant's architects on 12 October 2015 to discuss the issues arising from the proposed zero setback to the eastern boundary. A driving principal of Council's endorsed St Leonards/Crows Nest Planning Study - Precincts 2 & 3 (2015) (Planning Study), is to provide tall, slender towers with space between them to enable distinct architectural design, light and solar access into the streets. Accordingly, Council Officers advised that a side setback of 6m is required. Council also expressed the desire for the development to incorporate a pedestrian through-site link at the ground level on the western boundary to improve permeability and activate and add interest at street level.

On 10 November 2015, the concept scheme was referred to the Design Excellence Panel for consideration. The main issue of concern raised by the Panel related to the proposed zero setback to the east, which was not supported. The Panel agreed that:

> *"an alternative, better design outcome, would be orientating the building on the North-South axis, with a reduced setback for the residential tower to Atchison Street and Atchison Laneway and 6 metre side setbacks on both sides."*

The Panel supported the proposed 2 storey pedestrian link along the western side of the site to activate the area.

On 2 February 2016, Council officers met with the applicant's architects to discuss a revised residential tower floorplan prepared in response to the recommendations of the Design Excellence Panel. Proposed variations to the scheme included:

- a 4.5m setback to the eastern boundary; and
- a reduced above podium setback to Atchison Street (i.e. 0.25m) to match the adjacent 'Arden' building to the west of the site.

At the meeting, Council Officers advised the applicant that a 4.5m compromise setback to the eastern boundary would not be supported, as it would result in low amenity dwellings, unfairly burden the development potential on the adjacent site and adversely affect the public domain.

On 29 February, two concept options were submitted to Council by the applicant's architects. Council responded to both options in a letter dated 14 March 2016. Council advised that any proposal providing less than the full 6m side setbacks would not be supported. Consistent with the recommendations of the Design Excellence Panel, Council Officers agreed to consider a proposal that:

- reduces the required setbacks for the tower from the northern and southern street frontages in order to maintain the 6m side boundaries; and
- allows for a 3 storey non-residential podium and 13 storey residential tower, provided the podium has sufficient floor-to-floor heights to provide the appearance of a consistent 4 storey presentation to Atchison Street.

These non-compliances would need to be carefully considered and justified in any Planning Proposal submitted.

On 23 January 2018, a meeting was convened at the request of the applicant to obtain feedback from Council on a new concept scheme for the site. The primary difference from previous schemes was that the new scheme proposed 20 storeys, as opposed to 16 storeys. At the meeting, Council Officers advised that a building height greater than that envisaged under the Planning Study (i.e. 16 storeys) would not be supported.

Planning Proposal

On 6 April 2018, the Planning Proposal was lodged with Council, which initially sought to:

- increase the maximum height control from 20m to RL150 (61m);
- increase the maximum non-residential FSR control from 0.6:1 to 2.2:1; and
- establish an overall maximum FSR control of 6.9:1

The Planning Proposal was accompanied by an indicative concept scheme to demonstrate how the site could be developed to the requested height and FSR controls. The Planning Proposal envisaged the site being developed to accommodate a 17-storey mixed use building incorporating the following elements:

- 4 storey podium containing:
  - ground floor retail floor space;
  - 2 levels commercial office floor space; and
  - 1 level residential apartments.
- 13 storey residential tower above the podium containing:
  - 13 levels residential apartments;
  - rooftop communal open space; and
  - lift overrun.
- 3 level basement containing:
  - 32 car spaces.

A numerical overview of the originally proposed concept scheme is provided below:

Height	61m
Gross Floor Area (GFA)	7,470m² • 2,426m² non-residential • 5,044m² residential (total 65 apartments)
Floor Space Ratio (FSR)	6.9:1
Non-Residential FSR	2.2:1
Whole of building setbacks	Atchison Street – 3m Atchison Lane – 1.5m
Above podium setbacks	Southern elevation (Atchison Street) – 0.25m Northern elevation (Atchison Lane) – 1.75m Eastern elevation – 6m Western elevation – 6m

On 23 May 2018, a preliminary assessment letter was sent to the applicant requesting the concept scheme be revised to align with the maximum building height identified in Council's Study, including any adjustment to the overall FSR being sought. It was also requested that consideration be given to the public benefits identified in Council's Study for inclusion in any proposed VPA.

Revised Planning Proposal (subject of this report)

On 6 February 2019, Council received a revised Planning Proposal (Attachment 1). As lodged, the revised proposal seeks to:

- increase the maximum height control from 20m to 58.1m (RL147.1);
- increase the maximum non-residential FSR control from 0.6:1 to 1.7:1; and
- establish an overall maximum FSR control of 6.4:1.

The accompanying indicative concept scheme proposes a 16-storey mixed use building incorporating the following elements:

- 3 storey podium containing:
  - ground floor retail floor space; and
  - 2 levels commercial office floor space.
- 13 storey residential tower above the podium containing:
  - 13 levels residential apartments;
  - rooftop communal open space; and
  - lift overrun.
- 3 level basement containing:
  - 32 car spaces.

A numerical overview of the revised concept scheme is provided below:

Height	58.1m (including 3.9m for lift overrun)
Gross Floor Area (GFA)	6,887m² • 1,844m² non-residential • 5,043m² residential (total 65 apartments)
Floor Space Ratio (FSR)	6.4:1

Non-Residential FSR	1.7:1
Whole of building setbacks	Atchison Street – 3m Atchison Lane – 1.5m
Above podium setbacks	Southern elevation (Atchison Street) – 0.25m Northern elevation (Atchison Lane) – 1.75m Eastern elevation – 6m Western elevation – 6m

The revised Planning Proposal was also accompanied by a draft Voluntary Planning Agreement (VPA), with an offer to create a pedestrian through-site link along the western boundary of the site and a monetary contribution of $1.4 million towards the upgrade of Hume Street Park. The total assessed value of the proposed offer is in the order of $2.425 million.

CONSULTATION REQUIREMENTS

Should Council determine that the Planning Proposal can proceed, community engagement will be undertaken in accordance with Council's Community Engagement Protocol and the requirements of any Gateway Determination issued.

DETAIL

1. Applicant

The Planning Proposal was lodged by Urbis Pty Ltd on behalf of Epic Leisure Pty Ltd, the owners of the subject sites at 50-56 Atchison Street, St Leonards.

2. Site Description

The subject site comprises three (3) allotments of land. The legal property description and existing development is outlined in Table 1 below:

TABLE 1: Property Description

Property Description	Legal Description	Existing development
50 Atchison Street, St Leonards	Lot 7, section 11, DP 2872	2 storey commercial building with frontage to Atchison Street and secondary vehicular access from Atchison Lane.
52-56 Atchison Street, St Leonards	Lot 6, section 11, DP 2872	4 storey commercial building with frontage to Atchison Street and secondary vehicular access from Atchison Lane.
52-56 Atchison Street, St Leonards	Lot 5, section 11, DP 2872	

FIGURE 1: *Subject site*

FIGURE 2: *Aerial photo of subject site*

The subject site is bound by Atchison Lane to the north, Atchison Street to the south and abuts 48 Atchison Street (also known as 'The Arden') to the west and 58 Atchison Street to the east (refer to Figures 1 and 2). It is rectangular in shape with a frontage of approximately 30m to Atchison Street and Atchison Lane and a depth of 36m. The site is 1,080m² in area. The land falls approximately 2.6m from west to east along the Atchison Street frontage and 2.3m along the Atchison Lane frontage.

The site contains two commercial office buildings which range from 2-4 storeys in height (refer to Figures 3 and 4). Both buildings were originally constructed in the 1970s with a primary frontage to Atchison Street and secondary vehicular access from Atchison Lane.

FIGURE 3: *Photo of subject sites from Atchison Street*

FIGURE 4: *Photo of subject sites from Atchison Lane*

3. Local Context

The subject site is centrally located within St Leonards, which is identified as a 'Strategic Centre' under the relevant Regional Plan (*A Metropolis of Three Cities*) and North District Plan. The area is undergoing a significant transformation from typically 1-4 storey commercial buildings constructed in the 1970s to contemporary mixed-use commercial/residential

buildings up to 16 storeys in height, with 1 to 4 levels of commercial floor space within the lower levels of the building and residential apartments above.

St Leonards Railway Station is located approximately 400m walk to the west of the subject site, which provides regular services to the south to North Sydney and Sydney CBD, and to the north to Chatswood, Macquarie Park and Hornsby. An access point to the future Crows Nest Metro Station is proposed to be located approximately 300m to the south of the site.

FIGURE 5: Contextual relationship

To the west of the subject site, on the adjacent lot at 40-48 Atchison Street ('The Arden'), is a 12 storey mixed-use commercial/residential building completed in 2004. Further to the west is a 5 storey commercial retail/office building completed in 1974 (at 30 Atchison Street) and a 15 storey mixed-use commercial/residential building completed in 2012 (at 32-38 Atchison Street).

To the south of the subject site, on the opposite side of Atchison Street, is a 12 storey mixed use commercial/residential building completed in 2003 (at 15 Atchison Street); a single storey commercial/retail building (at 21 Atchison Street) and 5 commercial office buildings ranging 2-4 storeys in height (at 23, 25, 27, 31 and 33-35 Atchison Street). A Planning Proposal seeking to increase the maximum height control applying to the sites at 23-35 Atchison Street from 20m to 56m (16 storeys) was made on 15 May 2020.

To the north of the subject site, on the opposite side of Atchison Lane, are 4 commercial office buildings ranging 2-3 storeys in height (at 67-69, 71-73, 75-77 and 79-81 Chandos Street). Further to the east are 3 commercial buildings ranging 1-3 storeys in height (at 83-85, 87 and 89 Chandos Street).

Directly to the east of the subject site, are 4 commercial buildings ranging between 2-3 storeys in height (at 58, 60, 62 and 64 Atchison Street).

On 6 September 2018, Council received a Planning Proposal for the sites located directly to the north and east (at 58-89 Chandos Street and 58-64 Atchison Street). The proposal sought to increase the maximum building height to part 67m (at 55-65 Chandos St), 101m (at 67-89 Chandos Street) and 85m (at 58-64 Atchison Street). On 25 February 2019, Council resolved to not support the Planning Proposal proceeding to a Gateway Determination. On 23 July 2019, the Sydney North Planning Panel considered a Rezoning Review of this proposal and agreed that it should not proceed to a Gateway Determination.

4. Current Planning Provisions

The following subsections identify the relevant principal planning instruments that apply to the subject site.

4.1 NSLEP 2013

NSLEP 2013 was made on 2 August 2013 through its publication on the NSW legislation website and came into force on the 13 September 2013. The principal planning provisions relating to the subject site are as follows:

- *Zoned B4 - Mixed Use* (refer to Figure 6);
- A maximum building height of 20m (refer to Figure 7);
- A minimum non-residential floor space ration of 0.6:1 (refer to Figure 8).

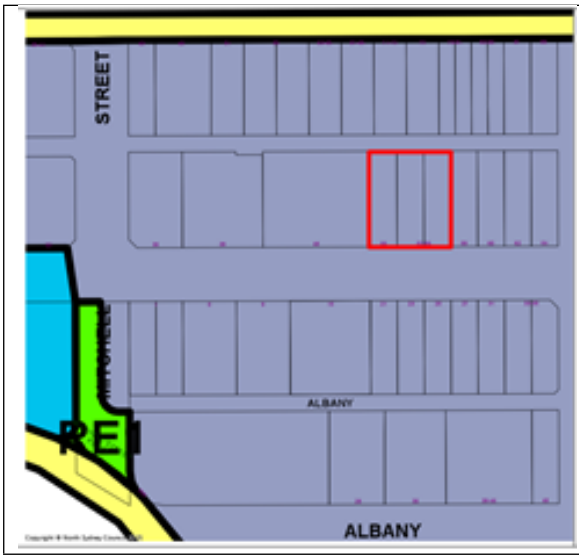

FIGURE 6: NSLEP 2013 Zoning Map extract
The subject site is zoned B4 – Mixed Use

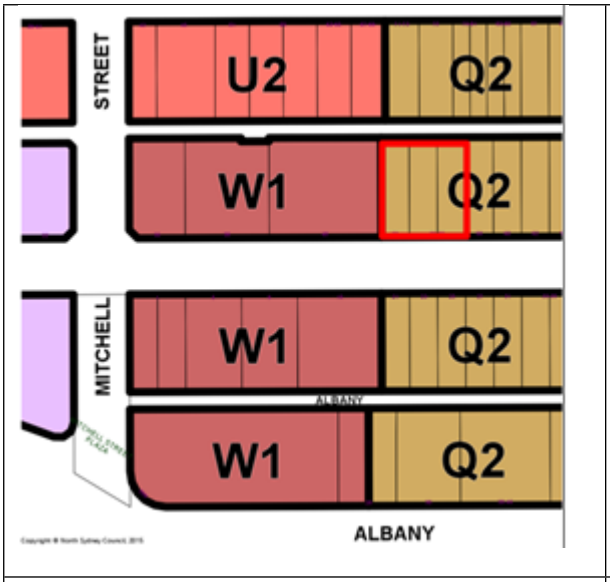

FIGURE 7: NSLEP 2013 Height of Buildings Map extract
The subject site has a maximum height of 20m

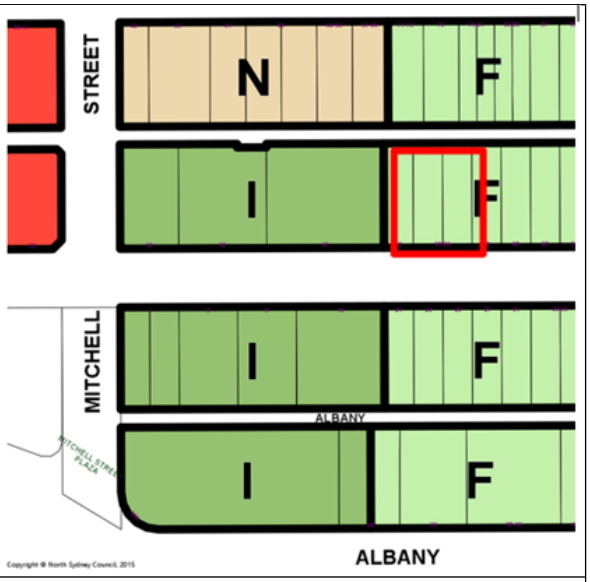

FIGURE 8: NSLEP 2013 Non-residential Floor Space Ration Map extract
The subject site must provide a minimum non-residential residential floor space of 0.6:1

4.2 St Leonards/ Crows Nest Planning Study (2015)

The *St Leonards/Crows Nest Planning Study – Precincts 2 & 3* (Planning Study), was adopted by Council in May 2015. The Planning Study provides a framework to manage the high level of development interest in St Leonards/ Crows Nest, sustainably accommodate population growth in the North Sydney Local Government Area (LGA), stimulate job growth and deliver much needed public domain and services.

The Planning Study aims to:

- establish a modern, liveable, high amenity mixed-use centre;
- support the establishment of creative/innovative industries;
- improve urban design and street level amenity;
- improve building design and residential amenity; and
- increase investment in St Leonards.

The Study identifies the subject site as being located within the West of Oxley Street Creative Quarter – a vibrant precinct that supports a mix of creative industries, specialty retail, start-up businesses, galleries and cosmopolitan living options.

The site is identified under the Planning Study's Built Form Strategy as having potential for uplift. An assessment against the Study's criteria is undertaken under section 7.7.4 of this report.

4.3 St Leonards and Crows Nest Draft 2036 Plan (2018)

In July 2016, the Minister for Planning announced that the Department of Planning, Industry and Environment (DPIE) would undertake a strategic planning investigation into the Crows Nest, St Leonards and Artarmon industrial areas (refer to Figure 9).

On 15 October 2018, the DPIE released the draft *St Leonards and Crows Nest 2036 Plan* (draft 2036 Plan) and a suite of supporting documents for public exhibition. The draft 2036 Plan aims to deliver significant residential and employment growth within the precinct, principally as a result of the new Crows Nest Metro station opening in 2024. The draft 2036 Plan identifies desired building heights, density (FSR), employment (non-residential FSR), land use, overshadowing and building setback controls.

The subject site is identified under the draft 2036 Plan as having potential for uplift. An assessment against the draft 2036 Plan's criteria is undertaken under section 7.7.5 of this report.

FIGURE 9: St Leonards and Crows Nest Investigation Area (Planned Precinct)
Source: Department of Planning, Industry and Environment (DPIE)

5. Planning Proposal Structure

The Planning Proposal (Attachment 1) is considered to be generally in accordance with the requirements under s.3.33 of the Environmental Planning and Assessment (EP&A) Act 1979 and the DPIE's *'A Guide to Preparing Planning Proposals'* (August 2016).

The Planning Proposal adequately sets out the following:

- A statement of the objectives or intended outcomes of the proposed LEP;
- An explanation of the provisions that are to be included in the proposed LEP;
- Justification for those objectives, outcomes and provisions and the process for their implementation; and
- Details of the community consultation that is to be undertaken on the Planning Proposal.

5.1 Statement of Objectives and Intended Outcomes

The primary objective of the Planning Proposal as described by the applicant is as follows:

The primary objective of the Planning Proposal is to amend the NSLEP 2013. The amendments will provide the urban renewal of the site to accommodate a mixed-use development on the site with a taller building form.

The intended outcomes of the Planning Proposal are as follows:

- *To satisfy State Government objectives to grow jobs, housing and infrastructure within the St Leonards health and education precinct and priority precinct;*
- *To enable the redevelopment of the land in a manner consistent with the building height and FSR parameters envisaged by the St Leonards/Crows Nest Planning Study (Precincts 2 and 3);*
- *To integrate the subject site with the surrounding area through improvements to adjoining public domain spaces;*
- *To deliver significant public domain improvements including active street frontages, high quality public domain and improved connectivity between the St Leonards train station and surrounding areas;*
- *To provide a mixed-use development with residential, commercial and community facilities that will contribute to the creation of a vibrant and active community; and*
- *Contribute to the rejuvenation of St Leonards by encouraging and support development activity and supporting the diverse mixed use nature of the precinct.*

5.2 Proposed LEP Amendment

The Planning Proposal seeks to achieve the intended objectives and outcomes by amending NSLEP 2013 as follows:

- increase the maximum building height control from 20m to RL 147.1 (58.1m);
- increase the maximum non-residential FSR control from 0.6:1 to 1.7:1; and
- establish an overall FSR control of 6.4:1.

5.3 Mapping Amendments

The proposal requires a number of mapping amendments which are described in further detail below:

5.3.1 Height of Buildings Map

It is proposed to amend the *Height of Buildings Map* (ref: 5950_COM_HOB_001_010_20180411) to NSLEP 2013 such that a maximum building height for 50-56 Atchison Street, St Leonards is increased from 20m to RL147.1.

5.3.2 Floor Space Ratio Map

It is proposed to amend the *Floor Space Ratio Map* (ref: 5950_COM_FSR_001_010_20180411) to NSLEP 2013 such that a maximum FSR of 6.4:1 applies to 50-56 Atchison Street, St Leonards.

5.3.3 Non-residential Floor Space Ratio Map

It is proposed to amend the *Non-residential Floor Space Ratio Map* (ref: 5950_COM_LCL_001_010_20180411) to NSLEP 2013 such that a maximum non-residential FSR of 1.7:1 applies to 50-56 Atchison Street, St Leonards.

The applicant's Planning Proposal anticipates that the Maps would be amended similar to those depicted below (refer to Figures 10, 11 and 12).

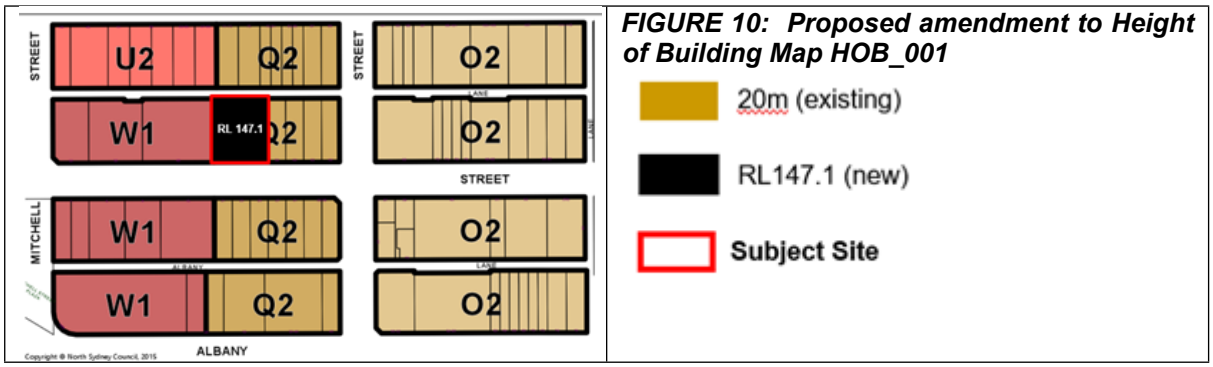

FIGURE 10: Proposed amendment to Height of Building Map HOB_001

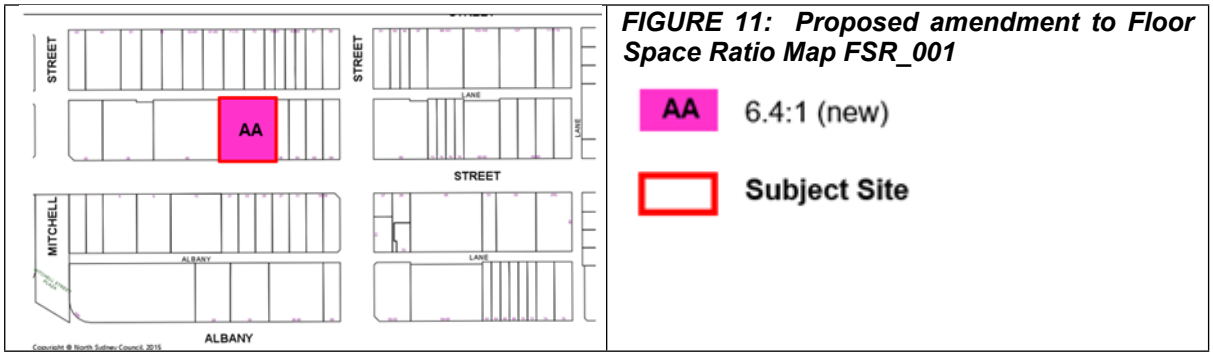

FIGURE 11: Proposed amendment to Floor Space Ratio Map FSR_001

FIGURE 12: Proposed amendment to Non-residential Floor Space Ratio Map LCL_001

6. Draft Voluntary Planning Agreement (VPA)

The Planning Proposal is accompanied by a draft VPA which offers to provide:

- a through-site link between Atchison Street and Atchison Lane along the western portion of the site that is approximately 5.6m wide and 7.2 - 7.5m high, with an easement for public access between 6am to 11pm; and
- a monetary contribution of $1.4 million to Council for open space upgrades within the Precinct.

The total value of the proposed offer is in the order of $2.425 million. This draft VPA will be in addition to section 7.11 contributions.

Council had the value of the draft VPA reviewed by an independent economic consultant to determine if the offer was reasonable in terms of best practice and Council's own VPA policy.

The proposed offer is valued to be approximately 40% of the overall land value uplift that Council seeks to achieve in the form of public benefits. These benefits to be achieved through the above offer are, on balance, considered to be appropriate for the uplift proposed.

The draft VPA has also been reviewed by Council's lawyers and a number of issues have been identified that require resolution. These issues primarily relate to certainty of outcome, security of payment, delivery and enforcement of the Agreement. These issues are of a technical nature only and are not insurmountable and therefore should not be used to prevent the Planning Proposal from progressing.

To allow the community a full appreciation of what is being proposed, the draft VPA is to be exhibited concurrently with the Planning Proposal. It is considered that the issues can readily be resolved prior to placing the Planning Proposal on public exhibition, should Council resolve to proceed to Gateway Determination.

On this basis, it is recommended that if Council resolves to allow the Planning Proposal to proceed to Gateway Determination, the Planning Proposal should only be forwarded to the DPIE, once the General Manager is satisfied that the issues with the draft VPA, as identified by Council's lawyers, have been appropriately resolved.

7. Justification of the Planning Proposal

7.1 Objectives of the Planning Proposal

On balance, the proposed amendments to NSLEP 2013 generally achieve the objectives and intended outcomes of the Planning Proposal (refer to Table 2 below).

TABLE 2: Analysis of objectives and intended outcomes

Objectives and Intended Outcomes	Comment
To satisfy State Government objectives to grow jobs, housing and infrastructure within the St Leonards Health and Education Precinct and Priority Precinct.	✓ Whilst the proposal will technically result in a physical loss of non-residential floor space, the proposal may not necessarily result in a loss of employment. With the retention of a minimum non-residential FSR and increase in employment densities in modern buildings, there is potential for a net increase in jobs to be provided on the site, consistent with the desired future outcome of the Regional and District Plans and draft St Leonards and Crows Nest 2036 Plan. *Refer to sections 7.7.2, 7.7.3 and 7.7.5 of this report.*
To enable the redevelopment of the land in a manner consistent with the building height and FSR parameters envisaged by the St Leonards/Crows Nest Planning Study (Precincts 2 and 3).	✓ The concept proposal is generally consistent with that envisaged under the Planning Study 'Built Form Strategy.' *Refer to sections 7.7.4 of this report.*

To integrate the subject site with the surrounding area through improvements to adjoining public domain spaces.	✓ The concept proposal illustrates that street activation will be increased, through the creation of more active frontages at the street level. The concept proposal seeks to increase the footpath width to Atchison Street, through increased setbacks at the ground level, and providing a pedestrian through-site link between Atchison Street and Atchison Lane, to increase pedestrian connectivity and amenity.
To deliver significant public domain improvements including active street frontages, high quality public domain and improved connectivity between the St Leonards train station and surrounding areas.	✓ *Refer to comments above.* The proposal is accompanied by a draft VPA which offers to provide a monetary contribution to Council for the purposes of open space upgrades within the precinct. *Refer to section 6 of this report.*
To provide a mixed-use development with residential, commercial and community facilities that will contribute to the creation of a vibrant and active community.	✓ The proposed mix of commercial retail/office and residential uses will add vitality to the area and maximise the use of nearby mass public transport infrastructure. It is generally consistent with that envisaged under the Regional and District Plans, Council's Planning Study and the DPIE's draft 2036 Plan. *Refer to sections 7.7.2, 7.7.3, 7.7.4 and 7.7.5 of this report.*
Contribute to the rejuvenation of St Leonards by encouraging and support development activity and supporting the diverse mixed-use nature of the precinct.	✓ *Refer to comments above.*

7.2 Proposed Building Height

The concept proposal has a maximum height of 58.1m (RL147.1). The proposed 16 storey building has a height of 54.2 (RL143.2) to the top of the parapet and the applicant is seeking an allowance for an additional 3.9m in height to the top of the lift overrun to provide access to communal open space at the rooftop.

Whilst reasonable floor to floor height assumptions have been made by the applicant and is reflected in their concept proposal, the allowance sought for the lift overrun could potentially permit a building greater than 16 storeys. To ensure the Planning Proposal is consistent with Council's Planning Study and the DPIE's draft 2036 Plan, it is recommended the Planning Proposal be amended to reflect a maximum height control of 56m only.

In setting height controls, the Apartment Design Guidelines (ADG) recommend adding the floor-to-floor heights for the desired number of storeys, then adding 1m for rooftop articulation and 2m to allow for topographic changes where required. Based on ADG considerations, a building height of 56m is considered appropriate for a 16-storey building and is consistent with the maximum building height control approved for a 16-storey mixed use development at 23-35 Atchison Street, St Leonards, located directly opposite the subject site to the south.

The proposed building height control of RL143.2 also raises considerations of overshadowing and view impacts, which are discussed in further detail below.

7.3 Proposed Floor Space Ratio (FSR)

No specific maximum FSR currently applies to the site under NSLEP 2013. The draft *St Leonards and Crows Nest 2036 Plan* sets a maximum FSR of 6:1 for the subject site (i.e. 6,480m² of GFA).

The Planning Proposal seeks to apply a maximum FSR of 6.4:1 (i.e. 6,912m² of GFA), which exceeds the proposed requirement under the draft 2036 Plan by 432m². This inconsistency has the potential to set a precedent for the locality. Council should therefore consider whether mitigating factors exist that demonstrate that the difference between the proposed form and the theoretical capacity under the draft 2036 Plan is well justified.

In addressing this inconsistency, the applicant draws attention to the proposed minimum non-residential FSR which is more generous than that stipulated under Council's Planning Study and the DPIE's draft 2036 Plan (of 1.5:1 and 1:1, respectively). Council accepts that the provision of additional employment floorspace capacity partly offsets the inconsistent maximum FSR for the reasons further explained in section 7.4 below.

It is also accepted that the Design Excellence Panel's recommendations, which offered concessions on setbacks from Atchison Street and Atchison Lane in exchange for maintaining 6m setbacks from the eastern and western boundaries, provide another mitigating factor. However, without appropriate design treatment, there remains potential for the proposed controls to unfairly impose on the development potential of sites to the north. This is not considered significant enough on its own to preclude the proposal progressing further, but should the LEP amendments proceed, further design considerations and refinements will be needed to ensure appropriate interfaces with surrounding sites at any future development application stage.

7.4 Proposed Non-residential Floor Space Ratio (FSR)

The two existing buildings on the subject site currently provide approximately 2,168m² of commercial floor space, which equates to a non-residential FSR of 2:1. The Planning Proposal seeks a non-residential FSR of 1.7:1 to accommodate 1,844m² of non-residential floor space, as shown in the proposed concept design. This will result in a net reduction of commercial floor space provided on the site by 324m².

Notwithstanding, the proposed non-residential FSR is greater than that currently required under NSLEP 2013 (0.6:1 or 648m² of non-residential GFA), Council's Planning Study (1.5:1 or 1,620m² of non-residential GFA) and the DPIE's draft 2036 Plan (1:1 or 1,080m² of non-residential GFA).

In its January 2019 report, Council expressed concerns over the capacity of the draft 2036 Plan to achieve the employment targets for St Leonards as set out in the North District Plan. It noted that the non-residential FSR standard had been reduced from 1.5:1 to 1:1 and that assumptions for other parts of St Leonards are possibly unrealistic or less likely to occur. Given these concerns, Council could adopt a positive approach to employment floorspace provision in considering proposals that go above and beyond the standards set out in the draft 2036 Plan.

The proposed non-residential FSR control presents a middle ground between the floorspace yield of the existing commercial buildings and the less ambitious standards set out in Council's

Planning Study and DPIE's draft 2036 Plan. It also minimises the quantitative loss of employment capacity on the site while providing for the possibility of retaining or improving on real job numbers through a new-build, flexibly-designed commercial podium. For these reasons, the proposed control is acceptable.

7.5 Alternative Options

The DPIE's *'A Guide for Preparing Planning Proposals'* (2016) requires Planning Proposals to consider if there are alternative options to achieving the intent of the proposal.

The Planning Proposal considers three alternate options, these include:

- Option 1: Do nothing (no amendment to statutory planning controls);
- Option 2: Incorporate a new clause within *Schedule 1 - Additional permitted uses* to NSLEP 2013 to permit additional floor space and building height;
- Option 3: Amend the height of building, FSR and non-residential FSR maps to permit additional height, FSR and non-residential FSR controls.

The Planning Proposal acknowledges that without establishing a new building height control, the proposed Design Concept for the site cannot be achieved. The intent of the Planning Proposal cannot be achieved through the application of *clause 4.6 - Exceptions to development standards* under NSLEP 2013 due to the extent of height increase sought.

Incorporating a new clause within *Schedule 1 – Additional permitted uses* to NSLEP 2013 is not considered suitable, as the proposed amendment relates to a change in the development standard applying to the site and not a change in permissible land use. As such, the proposed means of amending the Height of Building, FSR and non-residential FSR maps to permit additional height and floorspace on the site is considered the most appropriate means of achieving the intent of the Planning Proposal.

7.6 Environmental Impacts

The Planning Proposal identifies foreseeable impacts that will result from the proposed increase in the height control. As outlined in section 7.2 of this report, the applicant has gone to some effort to document expected overshadowing and view sharing impacts as detailed within the attached Planning Proposal and accompanying Concept Design Report documents.

Overall, it is noted that some impact is expected at a broad strategic level through standards established in Council's Planning Study and DPIE's draft 2036 Plan (acknowledging that the latter is in draft form and may be subject to change before finalisation). Council must be satisfied that potential impacts from this Planning Proposal relating to overshadowing, views and wind are not significantly different to those envisaged under Council's Planning Study and DPIE's draft 2036 Plan to warrant the Planning Proposal progressing further.

7.6.1 Overshadowing

The applicant's Concept Design Report includes shadow diagrams which illustrate the impact of shadowing of the potential built form at the site on the surrounding streetscape and buildings (refer to Figure 13 below). Of note is the overshadowing impact the proposal will have of

buildings to the west and south of the site and the public domain to the south-east of the site. There will be some additional overshadowing impact to:

- apartments along the eastern elevation at 40-48 Atchison Street ('The Arden') between 9am-11am;
- apartments along the northern elevation at 15 Atchison Street between 9am – 12noon;
- the proposed development at 23-35 Atchison Street between 12noon-3pm; and
- the proposed Oxley Street linear park between 2pm-3pm.

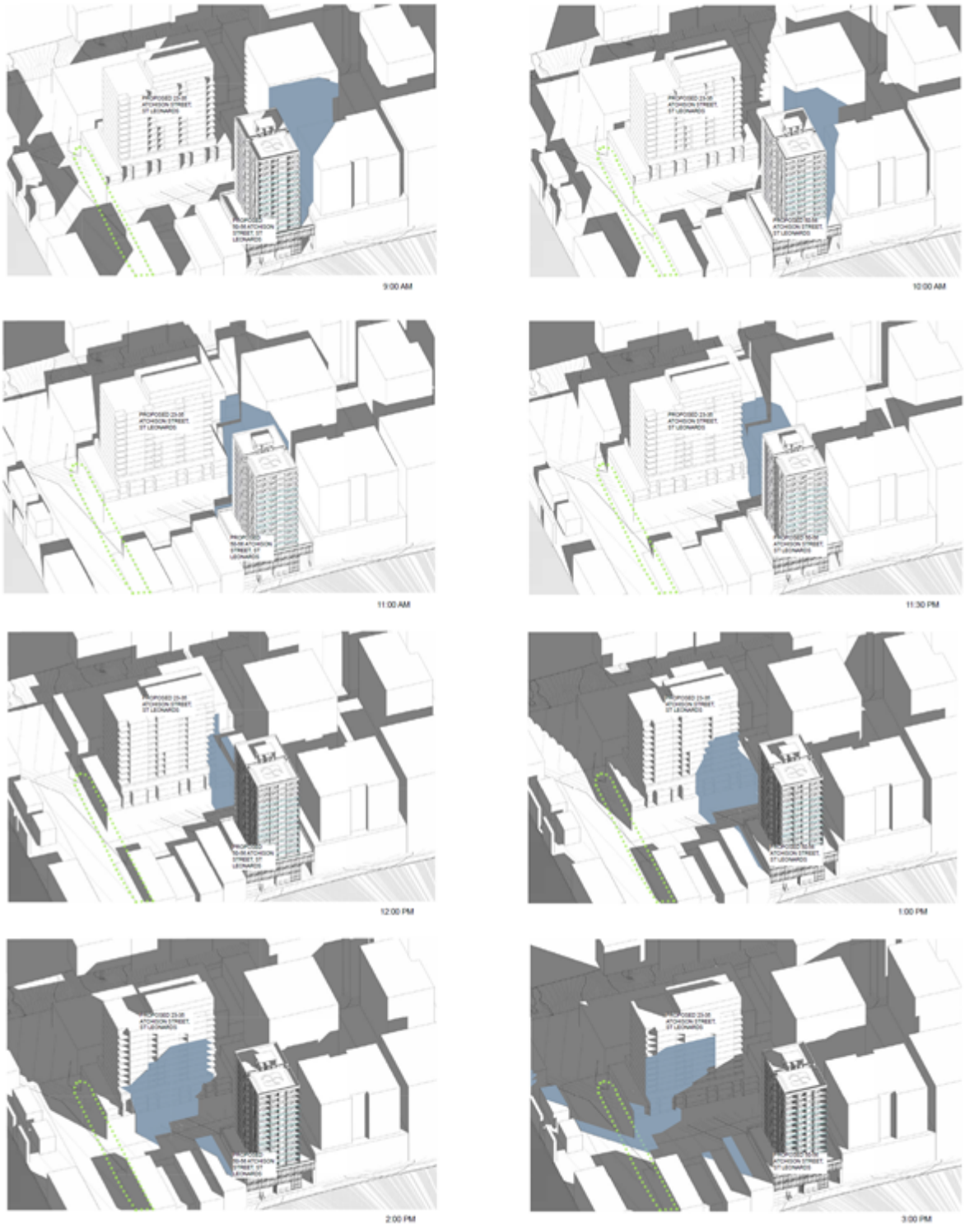

FIGURE 13: Shadow diagrams prepared by applicant showing current and new overshadowing between 9am – 3pm at Winter Solstice
Source: Planning Proposal Concept Design Report (Kann Finch, 2019)

These impacts are considered to be somewhat mitigated as a result of the slenderness of the proposed tower form and its separation from other towers. The slenderness of the tower ensures that any shadows cast are narrow and impacts on nearby properties are short term.

The applicant's shadow analysis also indicates that the shadows from the proposed building to Oxley Street linear park between 2pm-3pm is likely to overlap with the shadows generated by a future building envelope on the adjacent site to the east. An increase in height to 16 storeys is also envisaged under both Council's Planning Study and the DPIE's draft 2036 Plan for the adjacent site to the east.

The applicant reiterates observations in the Planning Study that the east-west orientation of blocks in St Leonards means that a large proportion of the surface environment is overshadowed throughout the day. The Planning Proposal report also highlights that much of the additional impact is expected to be as a result of the built form anticipated by the Planning Study and the draft Plan 2036.

Council is satisfied that this should not preclude the Planning Proposal progressing to a Gateway Determination, but detailed design work will need to consider and respond to this impact at any future development application stage.

7.6.2 Views

In terms of view impacts, the proposal will have some impact on the district views to the north and east currently enjoyed by apartments along the eastern elevation at 40-48 Atchison Street (The Arden). The applicant also highlights the statement in Council's Planning Study explaining that key views and sightlines are generated by the predominantly orthogonal street grid and undulating topography. As the proposal is located mid-block in this context, the applicant argues that it will not impact on these key views, although increased height and density will have some unavoidable impact on views from surrounding taller buildings.

Taking these points into account, and the built form envisaged by the Planning Study and the draft 2036 Plan, Council is satisfied that likely view impacts are acceptable in an emerging transit oriented, high-density environment.

7.6.3 Wind

As outlined in the draft 2036 Plan under the area wide design principles for 'place', new developments are expected to have consideration to wind impacts demonstrated through a wind assessment.

The applicant has not provided a formal wind assessment at this stage, but the Planning Proposal's Concept Plan illustrates that the intended built form will incorporate an awning which will mitigate wind impacts on the public domain. Council is satisfied that this matter can be addressed in greater detail in any future development application and should not preclude the Planning Proposal progressing further.

7.6.4 Transport Implications

While the applicant has identified the need for a Green Travel Plan (GTP) to be submitted at development application stage, a draft GTP should be provided with the Planning Proposal to demonstrate how travel demand management measures will reduce car trips and increase the share of walking, cycling, public transport and ride share journeys. The draft GTP should provide: an empirical analysis of parking demand for the proposal; a Vision, Objectives and Targets for travel demand management for the site; identify actions and parties responsible for delivery to achieve identified Targets; and a commitment to ongoing review of this Travel Plan.

The empirical analysis should consider the site's proximity to existing high amenity walking, cycling and public transport and to the future Crows Nest Metro station. This analysis should demonstrate how further reductions in parking supply can be supported by the provision of other hard and soft engineering measures at the site.

ABS data suggests 6.4% of journeys to work in St Leonards at the time of the 2016 Census were ride share trips (i.e. including both a driver and a passenger). Measures to reduce car ownership/use through increased ride sharing should be included in the draft GTP.

Consideration should be given to practical outcomes to improve the attractiveness of walking to and from the site. In particular, given that the proposal would result in some activation of Atchison Lane, through the provision of a through-site link and ground floor retail uses, consideration could be given to the interface with this link and whether this requires renewal of the laneway environment (in terms of shared space design and materials used).

12x 'Type 3' visitor bicycle parking spaces (6 hoops if bicycles can be attached to both sides of the hoop) should be supplied for the proposal at ground level (e.g. within the through-site link or ground floor set-backs). They should be visible from the cycle network/carriageway, overlooked by adjacent land uses and well-lit for day- and night-time security purposes and also covered to protect from weather. 2x showers and changing rooms and 15x lockers should be provided for future workers at the site.

The subject site currently has good accessibility to public transport, with Pacific Highway bus services and St Leonards T1 station both within a 10-minute walk of the site. This will improve in the future with the opening of the Sydney Metro Crows Nest station, approximately 400m from the site. The draft GTP should include details of how the applicant intends to promote increased uptake of public transport by occupants, workers and visitors to the development in order to reduce car reliance and ownership and parking demand and supply for the site.

While the applicant has accurately calculated maximum parking allowances for the proposal (29 spaces), the Planning Proposal also suggests that 31 spaces, including a car share space and a car wash bay, will be provided. While the provision of the wash bay is acceptable and should not be included in the maximum parking allowances, Car Share Scheme provision P1(b) requires that the provision of a car share parking space be off-set by a commensurate reduction of 3-4 dedicated on-site parking space from the proposal's maximum parking allowance. The draft GTP should explore how the provision of car share spaces and vehicles will contribute to reduce car ownership and use for the proposal.

Should the proposal progress to a Gateway Determination, it is recommended that Council require a draft GTP be prepared, taking into account the above matters, before public exhibition commences.

7.7 Policy and Strategic Context

7.7.1 Section 9.1 Ministerial Directions

Section 9.1 of the EP&A Act enables the Minister for Planning to issue directions regarding the content of Planning Proposals. There are a number of Section 9.1 Directions that require certain matters to be addressed if they are affected by a Planning Proposal. Each Planning Proposal must identify which Section 9.1 Directions are relevant to the proposal and demonstrate how they are consistent with that Direction.

The Planning Proposal is considered to be generally consistent with all relevant Ministerial Directions, with the exception of Direction 1.1 – Business and Industrial Zones as discussed below.

Direction 1.1 – Business and Industrial Zones

Direction 1.1 - Business and Industrial Zones applies when a relevant planning authority prepares a Planning Proposal that will affect land within an existing or proposed business or industrial zone. The specific objectives of the Direction are to:

(a) encourage employment growth in suitable locations,
(b) protect employment land in business and industrial zones, and
(c) support the viability of identified strategic centres.

Subclause (4) to the Direction states:

A planning proposal must:
(a) give effect to the objectives of this direction,
(b) retain the areas and locations of existing business and industrial zones,
(c) not reduce the total potential floor space area for employment uses and related public services in business zones,
(d) not reduce the total potential floor space area for industrial uses in industrial zones, and
(e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning.

The Planning Proposal is inconsistent with subclause (4)(c) as it will result in a small net reduction of floorspace capable of being used for employment uses (refer to section 7.4 of this report).

However, subclause 5 to the Direction states:

A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the Planning Proposal that are inconsistent are:
(a) justified by a strategy which:

(i) gives consideration to the objective of this direction, and
(ii) identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and
(iii) is approved by the Director-General of the Department of Planning, or

(b) justified by a study (prepared in support of the planning proposal) which gives consideration to the objective of this direction, or

(c) in accordance with the relevant Regional Strategy or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or

(d) of minor significance.

Accordingly, there are a number of options by which a Planning Proposal may justify an inconsistency with the requirements of the Direction.

A key objective of both the Council's Planning Study and the DPIE's draft 2036 Plan is that St Leonards continues to develop as an employment hub, providing new employment opportunities in the industrial, professional, creative, retail, health and education sectors.

To achieve these objectives, both studies prescribe minimum non-residential FSR controls for sites within the mixed-use zone to ensure new development contributes to delivery of active streets by providing a range of uses at the ground floor.

The Planning Proposal is seeking a non-residential FSR control that, while quantitatively a decrease in capacity from the current employment offer, exceeds the minimum non-residential FSR requirements of both studies. For reasons outlined in section 7.4 of this report, this approach is considered acceptable and the inconsistency with Direction 1.1 to be of minor significance.

7.7.2 Greater Sydney Regional Plan *(A Metropolis of Three Cities)*

In March 2018, the NSW Government released the Greater Sydney Regional Plan: A Metropolis of Three Cities (Regional Plan). The Plan sets a 40-year vision (to 2056) and establishes a 20-year Plan to manage growth and change for Greater Sydney within an infrastructure and collaboration, liveability, productivity and sustainability framework.

The Regional Plan is guided by a vision of three cities where most people live within 30 minutes of their jobs, education and health facilities, services and great places. The Regional Plan aims to provide an additional 725,000 new dwellings and 817,000 new jobs to accommodate Sydney's anticipated population growth of 1.7 million people by 2036.

St Leonards is identified a Strategic Centre and Health and Education Precinct with the Eastern Economic Corridor under the Regional Plan.

The Planning Proposal is generally consistent with the strategic directions, objectives and strategies of the Regional Plan, as it will:

- increase residential accommodation near the heart of a Strategic Centre in proximity of high frequency public transport, jobs and services without adversely impacting upon the provision of active street frontages; and

- maintain a level of commercial floor space that will promote job retention in the locality; and
- provide social infrastructure in the form of a publicly accessible pedestrian through site link connection.

The Planning Proposal is unlikely to adversely impact upon the implementation of the directions and objectives identified in the Plan.

7.7.3 North District Plan

In March 2018, the NSW Government released the North District Plan. The Plan provides the direction for implementing the Greater Sydney Regional Plan: A Metropolis of Three Cities at a district level and sets out strategic planning priorities and actions for the North District.

The North District Plan has also established the following housing and jobs targets:

Housing Target	**North Sydney LGA**	**North District**
5 year (2016-2021)	+3,000 new dwellings	+25,950 new dwellings
20-year (2016-2036)	Council to prepare Local Housing Strategy (LHS)	+92,000 new dwellings
Jobs Target	**North Sydney LGA**	**North District**
20-year (2016-2036)	+15,600 – 21,100 new jobs	+6,900-16,400 new jobs

The Planning Proposal is considered to be generally consistent with the planning priorities of the North District Plan, as it will:

- provide 1,844m² of flexible upgraded commercial floorspace, which is estimated to support approximately 106 jobs in St Leonards;
- provide 65 new private dwellings, within close proximity to jobs, services and high frequency public transport; and
- contribute to creating a vibrant and active centre through the provision of a publicly accessible pedestrian through-site link with active ground floor retail frontages.

7.7.4 St Leonards/Crows Nest Planning Study – Precincts 2 and 3

The Planning Proposal has been lodged pursuant to the framework provided by the St Leonards /Crows Nest Planning Study - Precincts 2 and 3 (2015), which has been subject to community input and adoption by Council.

Section 1.5 of the Planning Study requires site-specific Planning Proposals meet specific criteria. The proposal's performance against these criteria, including a justification for where the concept proposal seeks to implement an alternate solution to the criteria, is discussed below.

Does the Planning Proposal relate to a parcel of land with a minimum street frontage of 20 metres?

The subject site has a primary frontage of 30m to Atchison Street and a secondary street of 30m to Atchison Lane.

Does the Planning Proposal relate to a parcel of land that does not isolate, sterilise or unreasonably restrict the development potential of adjacent parcels of land?

The Planning Proposal relates to a parcel of land that will not result in the isolation or sterilisation of an adjacent parcel of land. The concept proposal includes a 6m setback for the residential tower to the eastern boundary to ensure the development does not unfairly burden the development potential on the adjacent site to the east.

Does the Planning Proposal propose an amendment to the LEP with a:

- ***non-residential FSR control consistent with Map 5A?***

Yes. The Planning Study recommends a minimum non-residential floor space of 1.7:1 for this site, which is greater than the minimum non-residential FSR of 1.5:1 recommended under the Planning Study.

- ***site-specific FSR control having regard to the podium height, minimum setback controls in maps 6A and 6B and SEPP 65?***

As demonstrated in Table 3 below, the concept proposal is generally consistent with the podium height and street setback controls required under the Planning Study, but departs from the recommended above podium setback controls under the Built Form Strategy.

TABLE 3: Compliance with *St Leonards Crows Nest Planning Study - Precincts 2 & 3*				
Criteria	**Requirement**		**Concept Proposal**	**Complies**
Podium height	4 storeys (Atchison Street) 3 storeys (Atchison Lane)		3 storeys (Atchison Street) 3 storeys (Atchison Lane)	No Yes
Street setbacks	Atchison Street	3m	3m	Yes
	Atchison Lane	1.5m	1.5m	Yes
Above podium street setbacks	Atchison Street	3m	0.25m	No
	Atchison Lane	4m	1.75m	No

The Planning Study envisages a podium height of 4 storeys to Atchison Street and 3 storeys to Atchison Lane. Whilst the concept proposal has a reduced podium height of 3-storeys to Atchison Street, generous floor-to-floor heights are provided to give the appearance of a 4-storey podium. The height of the podium is approximately 13.9m, which provides an appropriate 'step down' from the adjacent development to follow the sloping topography along Atchison and provide a consistent streetscape.

The Study also recommends an above podium setback of 3m to Atchison Street and 4m to Atchison Lane. However, the concept proposal has significantly reduced above podium setbacks of 0.25m to Atchison Street and 1.75m to Atchison Lane. As outlined in the background section of this report, the Design Excellence Panel considered a previous scheme from the applicant which proposed a zero setback for the residential tower to the eastern

boundary. To maintain a minimum 12m building separation along the western and eastern elevations (i.e. 6m to lot boundary on each side), and ensure the development does not unfairly burden the development potential on the adjacent site and adversely affect the public domain, the Design Excellence Panel agreed to a compromise in the North/South Street setbacks.

Taking this into account (for reasons outlined in section 7.3 of this report), the proposed maximum FSR control is, on balance, considered acceptable. However, it is emphasised that there remains potential for the proposal to unfairly impose on the development potential of sites to the north, without appropriate design considerations. Should the LEP amendment proceed, further detailed design considerations will be needed at any future development application stage to ensure appropriate interfaces with surrounding sites are provided.

- ***height control consistent with map 6C?***

The concept proposal seeks to provide a 16-story mixed use development which is consistent with the recommended maximum height control under the Planning Study.

Notwithstanding, the Planning Proposal seeks to amend NSLEP 2013 to increase the maximum building height control from 20m to RL147.1 (58.1m). This includes an allowance of 3.9m for a lift overrun to provide access to communal open space at the rooftop. As outlined in section 7.2 of this report, the allowance sought by the applicant for the lift overrun could potentially permit an additional storey.

To ensure compliance with the maximum height limit envisaged under the Planning Study for the site, it is recommended that the Planning Proposal be amended to reflect a maximum height control of 56m. This is consistent with ADG considerations in setting height controls, and provides a level of flexibility for rooftop articulation and topographic changes where required.

Future development that seeks additional height for a lift overrun can potentially be facilitated through clause 4.6 - Exceptions to development standards under NSLEP 2013 at the Development Application (DA) stage.

Furthermore, a height of 56m for a 16-storey mixed use scheme is consistent with a Planning Proposal recently supported for 23-35 Atchison Street, St Leonards, located directly opposite the subject site to the south.

Prior to forwarding the Planning Proposal to the DPIE and seeking a Gateway Determination, it is recommended that the proposal be amended to reflect a height of 56m.

- ***Satisfactory arrangements to ensure there is no net increase in traffic generation?***

The transport impact assessment prepared by Arup on behalf of the applicant indicates that there will be a minor net increase to the total volume of vehicular traffic accessing/exiting the site during the AM and PM peak periods.

Mitigating factors could be explored through the preparation of a Green Travel Plan (GTP). As outlined in section 7.6.4 of this report, the applicant has stated that a GTP can be prepared during the preparation of any future development application. However, to meet this criterion, it is recommended that a draft GTP be prepared prior to commencement of any public exhibition of this Planning Proposal, addressing matters detailed in section 7.6.4 of this report.

For tall buildings identified in map 6C, does the Planning Proposal propose a height, setback and floor space ratio control that address the design principles for tall buildings?

Not applicable. The site is not identified as a 'Tall Buildings site'.

Does the Planning Proposal propose satisfactory arrangements that provide commensurate public benefits that support the proposed scheme?

Yes. The Planning Proposal seeks to enter into a Voluntary Planning Agreement. The proposed offer as submitted by the applicant indicates that they will provide:

- a through site link between Atchison Street and Atchison Lane along the western portion of the site that is approximately 5.6m wide and 7.2 - 7.5m high, with an easement for public access between 6am to 11pm; and
- a monetary contribution of $1.4 million to Council for open space upgrades within the Precinct.

In summary, the Planning Proposal is considered to present a satisfactory response to the criteria set out in the Planning Study and demonstrate that a future redevelopment of the site is capable of achieving the desired outcomes of the St Leonards/Crows Nest Planning Study - Precincts 2 and 3.

7.7.5 Draft St Leonards and Crows Nest 2036 Plan

The draft *St Leonards and Crows Nest 2036 Plan* requires all future planning proposals and development applications within the St Leonards and Crows Nest investigation area to have regard to the draft 2036 Plan's vision, area wide design principles, design criteria and proposed planning controls.

The proposal's performance against these criteria, including a justification for where the concept proposal seeks to implement an alternate solution to the criteria, is discussed below.

Vision

The Planning Proposal is considered to be generally consistent with the vision of the draft 2036 Plan insofar as it will:

- Assist in achieving a vibrant community by providing an active frontage and a through-site link to optimise commercial take-up, while avoiding any impact on built heritage;
- Provide uplift in an accessible place and improve permeability of the locality through the inclusion of the through-site link;
- Offer a design that generally conforms with its surrounds; and
- Provide capacity for a residential scheme incorporating a mix of household sizes.

Design Principles

The Planning Proposal is generally consistent with the area wide design principles of the draft 2036 Plan insofar as it will:

- Apply casual surveillance and universal access principles and contribute to the improvement of the walking network through the inclusion of active street level uses and a through-site link;
- Comply with general built form direction of locating taller buildings between the current St Leonards train station and the new Crows Nest metro station;
- Is centrally located within the wider transition area (identified on p23 of draft 2036 Plan) so as not to adversely impact on lower-density neighbourhoods;
- Apply building setbacks and awnings that improve on-site amenity and streetscape design;
- Cater to a range of business types and sizes by including a non-residential FSR above the standard set out in the draft 2036 Plan which, combined with the through-site link, will optimise commercial take-up on the site;
- Provide a built form that is not substantially different to that envisaged in the draft 2036 Plan and Council's Planning Study to raise strategic-level concerns regarding cumulative overshadowing, wind and view loss impacts; and
- Address potential wind impacts on the public domain with an intended built form that incorporates an awning. Council is satisfied that further detail can be provided through a formal wind assessment in any future development application.

Design Criteria

The Planning Proposal responds to the design criteria as follows:

- *Meet solar height planes in this Plan* – It generally meets the solar height planes for areas illustrated on page 26 of the draft Plan, in particular streetscapes of Mitchell and Oxley Streets in mid-winter between 11.30am and 2.30pm. As outlined in section 7.6.1 of this report, some additional overshadowing is expected on the proposed Oxley Street linear park after 2pm. While this is partly mitigated by the proposed slender tower design, it is also accepted that some impact is inevitable due to the uplift envisaged in the draft Plan.
- *Consideration of quality streetscape aspects such as setbacks, street wall height and heritage buildings* – The Planning Proposal considers streetscape aspects by responding to the recommendations of the Design Excellence Panel on setbacks and proposes a through-site link and active ground floor uses to improve its relationship with the streetscape.
- *Acknowledge key views and vistas such as key long distance vistas which offer sky views and vistas where a building may terminate the view* – As outlined in section 7.6.2 of this report, the proposal will have some impact on the district views to the north and east currently enjoyed by east-facing apartments in the neighbouring building (The Arden). Council is satisfied that likely view impacts are acceptable in an emerging high-density environment.
- *Avoid a monolithic street wall effect through the distribution of higher buildings* – The proposal seeks to avoid this effect by proposing a podium height that steps down from the building to the west, consistent with the street gradient. The provision of a 2-storey through-site link and active ground floor uses also serve to break up the podium's bulk and add variety at street level.

- *Transition heights from high rise areas down towards existing lower scale areas, including areas not proposed for height changes* – With the recommended amendment, the proposed height control will be consistent with the building height stipulated in the draft 2036 Plan. As mentioned above, the site is centrally located within the wider transition area identified in the draft Plan and is not expected to adversely impact on lower-density areas to the east.

Proposed Planning Controls

Table 4 below displays the quantitative planning controls contained in the draft 2036 Plan relevant to the site and whether the Planning Proposal complies with each. While the proposal is strictly non-compliant with all but one of these controls, there is justification for each inconsistency.

As explained previously in this report, the inconsistencies with the proposed maximum and non-residential FSR controls under the draft 2036 Plan are acceptable. Further, the Planning Proposal report asserts that the proposed 3-storey podium maintains the scale of a 4-storey street wall height through generous floor to ceiling heights. Council agrees that this inconsistency is justifiable. Finally, Council also accepts the applicant's argument that the proposed reverse setback control would not be an appropriate design outcome on this site.

TABLE 4: Compliance with draft *St Leonards and Crows Nest 2036 Plan*			
Proposed Planning Control	**Requirement**	**Concept Proposal**	**Complies**
Building Height	16 storeys	16 storeys	Yes
FSR	6:1	6.4:1	No
Non-residential FSR	Minimum 1:1	1.7:1	Yes
Street wall height	4 storeys	3 storeys	No
Street setbacks	3m reverse setback	3m whole of building setback	No

The finalised 2036 Plan will be accompanied by a section 9.1 Direction requiring future rezoning and development to be consistent with the final Plan. The Draft Plan states that, under this Direction, Planning Proposals may be inconsistent with the Plan if, in addition to achieving the vision, objectives, planning principles and actions identified in the Plan, the proposal clearly demonstrates that better outcomes and supporting infrastructure can be delivered. For reasons outlined in the report above, the Planning Proposal demonstrates that, on balance, better outcomes and supporting infrastructure can be delivered through the uplift and public benefits proposed.

7.7.6 Draft North Sydney Local Strategic Planning Statement (LSPS)

New legislative requirements introduced by the NSW Government in March 2018, require all councils prepare a Local Strategic Planning Statement (LSPS) to guide future land use planning and development. The LSPS is required to be consistent with the Greater Sydney Regional Plan ('A Metropolis of Three Cities') and the North District Plan, providing a clear line-of-sight between the key strategic priorities identified at the regional and district level and the local and neighbourhood level.

Following receipt of a Letter of Support from the Greater Sydney Commission (GSC), Council adopted the North Sydney LSPS on 24 March 2020. This document sets out Council's land use vision, planning principles, priorities and actions for the North Sydney LGA for the next 20

years. It outlines the desired future direction for housing, employment, transport, recreation, environment and infrastructure. The LSPS will guide the content of Council's Local Environmental Plan (LEP) and Development Control Plan (DCP) and support Council's consideration and determination of any proposed changes to development standards under the LEP via Planning Proposals.

An assessment of the proposal against relevant North Sydney LSPS local planning priorities is undertaken in Table 5 below.

TABLE 5: Compliance with *North Sydney Local Strategic Planning Statement*	
Local Planning Priority	**Comment**
I1 – Provide infrastructure and assets that support growth and change	☑ The Planning Proposal is accompanied by a draft VPA that proposes to provide monetary and in-kind contributions to Council, commensurate with the growth and change proposed on this site.
I2 – Collaborate with State Government Agencies and the community to deliver new housing, jobs, infrastructure and great places.	☑ The proposal provides a housing and commercial floorspace offer that is generally consistent with that envisaged for the site and locality under the *North District Plan*, Council's Planning Study and the DPIE's draft 2036 Plan.
L1 – Diverse housing options that meet the needs of the North Sydney community	☑ The Planning Proposal provides capacity for a residential scheme incorporating a mix of household sizes.
L2 – Provide a range of community facilities and services to support a healthy, creative, diverse and socially connected North Sydney community.	N/A
L3 – Create great places that recognise and preserve North Sydney's distinct local character and heritage.	☑ The proposed site-specific controls are generally consistent with standards set out in Council's Planning Study and the DPIE's 2036 Plan. The proposal scheme generally conforms with the emerging character of the locality and does not adversely impact local heritage.
P1 – Grow a stronger, more globally competitive North Sydney CBD	N/A
P2 – Develop innovative and diverse business clusters in St Leonards/Crows Nest	☑ The proposed amendments and concept proposal will cater to a range of business types and sizes by including a non-residential FSR above the standard set out in the draft 2036 Plan which, combined with the through-site link, will increase the attractiveness to a range of prospective occupants.
P3 – Enhance the commercial amenity and viability of North Sydney's local centres.	N/A
P4 – Develop a smart, innovative and prosperous North Sydney economy.	☑ The proposal contributes economically to St Leonards by providing a non-residential FSR that is above and beyond those stipulated for the site in Council's Planning Study and the DPIE's draft 2036 Plan. Although quantitatively a reduction on the current commercial offer, the proposed scheme could potentially yield a net increase in jobs through the inclusion of a modern, flexibly-designed commercial podium.
P5 – Protect North Sydney's light industrial and working waterfront lands and evolving business and employment hubs	N/A
P6 – Support walkable centres and a connected, vibrant and sustainable North Sydney.	☑ The Planning Proposal includes a draft VPA comprising an offer to create a pedestrian through-site link along the western boundary of the site and a monetary contribution of $1.4 million towards the upgrade of Hume Street Park, both contributing to the attractiveness of the site and the locality at a pedestrian scale.

TABLE 5: Compliance with *North Sydney Local Strategic Planning Statement*	
Local Planning Priority	**Comment**
S2 – Provide a high quality, well-connected and integrated urban greenspace system.	☑ See comment above
S3 – Reduce greenhouse gas emissions, energy, water and waste	☑ While the site is sustainably located to take advantage of current and proposed public transport infrastructure, it is recommended that a draft GTP be prepared prior to any future public exhibition, to further explore measures to reduce car reliance and ownership and improve the share of walking, cycling, car share and public transport trips.
S4 – Increase North Sydney's resilience against natural and urban hazards	☑ The proposal site is not subject to flood or bushfire risk. Potential contamination risk can be addressed at any development application stage. The proposal is not expected to exacerbate urban heating in the locality.

7.7.7 Draft North Sydney Local Housing Strategy (LHS)

The Draft North Sydney Local Housing Strategy (LHS) establishes Council's vision for housing in the North Sydney LGA and provides a link between Council's vision and the housing objectives and targets set out in the GSC's *North District Plan*. It details how and where housing will be provided in the North Sydney LGA over the next 20 years, having consideration of demographic trends, local housing demand and supply, and local land-use opportunities and constraints.

Following public exhibition, on 25 November 2019, Council resolved to adopt the draft North Sydney LHS with an action to forward to the DPIE for their approval.

The draft North Sydney LHS identifies the potential for an additional 11,870 dwellings by 2036 under the provisions of NSLEP 2013 and proposed changes envisaged by the DPIE under the draft St Leonards and Crows Nest 2036 Plan. The draft 2036 Plan identifies planning controls to support the delivery of an additional 3,515 dwellings within the parts of the St Leonards and Crows Nest Planned Precinct located within the North Sydney LGA.

The concept proposal indicates an additional 65 residential apartments are to be accommodated on the site. This equates to approximately 2% of the anticipated dwellings to be accommodated within the B4 mixed use zone in St Leonards on a single site.

8. Community Consultation

There are no statutory requirements to publicly exhibit a Planning Proposal before the issuance of a Gateway Determination. However, Council sometimes receives submissions in response to Planning Proposals which have been lodged but are not determined for the purposes of seeking a Gateway Determination. The generation of submissions at this stage of the planning process, arise from the community becoming aware of their lodgement through Council's application tracking webpage. No submissions have been received to date.

9. North Sydney Local Planning Panel (NSLPP)

The Planning Proposal was considered by the NSLPP at its meeting on 1 July 2020 (refer to Attachment 2). The NSLPP endorsed Council's Report and Recommendation and supported the Planning Proposal to be forwarded to the DPIE for a Gateway Determination, subject to the provision of a special clause for the height of the building to exclude the lift overrun for access to the communal rooftop.

This recommendation was in response to the applicant's concerns that the Council's recommended revised building height control of 56m could potentially preclude the inclusion of a lift overrun as identified in the initial concept design. The final drafting of such a clause would not need to be completed before being forwarded to the DPIE, provided that its intent and operation are clearly communicated in the request for a Gateway Determination.

The NSLPP also noted that the Planning Proposal is consistent with the general strategic direction of both the State Government and North Sydney Council. It considered the timing in respect to any VPA to be a matter for Council and the applicant.

CONCLUSION

The Planning Proposal seeks to amend NSLEP 2013 to increase the maximum building height requirements and to incorporate new FSR and non-residential FSR requirements as it relates to the subject site.

The Planning Proposal is recommended to be supported as it:

- generally complies with the relevant Local Environment Plan making provisions under the Environmental Planning & Assessment Act 1979;
- generally complies with the Department of Planning, Industry and Environment's 'A Guide to Preparing Planning Proposals (August 2016)';
- on balance, does not contradict the ability to achieve the objectives and actions of high level planning strategies;
- is generally consistent with and promotes the desired future outcomes of the Council and community endorsed St Leonards / Crows Nest Planning Study for Precincts 2 & 3; and
- will facilitate a future building of a scale and bulk on the site that is unlikely to result in any significant adverse impacts on the environment or wider community, or has the ability to be appropriately mitigated as part of the development assessment process.

It is therefore recommended that Council resolve to support the forwarding of the Planning Proposal to the DPIE, seeking a Gateway Determination under s.3.34 of the EP&A Act 1979 subject to satisfactory amendments to the proposal and negotiation of the draft VPA.

To further investigate opportunities to reduce car reliance and ownership in favour of sustainable transport choices, it is recommended that a draft Green Travel Plan be prepared by the applicant prior to commencement of public exhibition of this Planning Proposal, addressing matters detailed in section 7.6.4 of this report.

Should a Gateway Determination be issued, the Planning Proposal and draft VPA should be exhibited concurrently, so as to allow the community a full appreciation of what is being proposed. Council will have the opportunity to execute the draft VPA following Council's consideration of a post-exhibition report.

REVISED PLANNING PROPOSAL

50-56 ATCHISON STREET, ST LEONARDS

5 FEBRUARY 2019
P5132
FINAL
PREPARED FOR EPIC LEISURE PTY LTD

URBIS

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

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Senior Consultant	Christophe Charkos
Project Code	P5132
Report Number	Planning Proposal_50-56 Atchison Street_Final_v2

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1. INTRODUCTION

1.1. OVERVIEW

This Planning Proposal has been prepared by Urbis for Epic Leisure Pty Ltd ("the proponent") to request that North Sydney Council amend the North Sydney Local Environmental Plan 2013 (NSLEP 2013). This report relates to the amended concept plans following the feedback and discussions between the proponent's representatives and Council officers.

The planning proposal relates to the land at 50-56 Atchison Street, St Leonards (the site). The amendment will enable the development of a mixed-use retail/commercial and residential building on the site.

The proposed amendments to the NSLEP 2013 are as follows:

- Increase the building height control to from 20m to 57.9m (RL147.1) comprising 16 storeys at RL143.2 and top of lift overrun;
- Increase the minimum non-residential FSR control from 0.6:1 to 1.7:1; and
- Establish an overall maximum Floor Space Ratio (FSR) control for the site of 6.4:1.

1.2. REPORT STRUCTURE

The Planning Proposal has been prepared under Section 3.33 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act). The NSW Department of Planning and Environment (DP&E) has prepared the following guidelines which have been considered in this planning proposal:

- *A Guide to Preparing Local Environmental Plans and*
- *A Guide to Preparing Planning Proposals.*

The report contains the following information:

- Description of the site and its context;
- Overview of the strategic context of the site;
- Summary of the local planning controls;
- Description of concept proposal;
- Statement of the objectives and intended outcomes of the proposal;
- Explanation of the 'provisions' of the proposal;
- A justification for the proposal;
- Proposed NSLEP maps;
- The expected process for community consultation; and
- An indicative project timeline.

The following supporting documents accompany the Planning Proposal:

- Concept Design Report - prepared by Kann Finch;
- Transport Impact Assessment – prepared by ARUP;
- Waste Management Plan – prepared by Elephants Foot;
- Building Services Report – prepared by Cardno;

2. SITE AND SURROUNDING CONTEXT

2.1. THE SITE

The site is known as 50-56 Atchison Street, St Leonards. As shown in **Figure 1**, the site has a primary street frontage to Atchison Street and secondary street frontage to Atchison Lane. The site is located between Oxley Street to the east and Mitchell Street to the west.

Figure 1 – Aerial Photograph of the Site

Source: Kann Finch

As shown in **Figure 2**, the site is located 400metres from St Leonards train station and around 200m from the nearest entrance to the future Crow's Nest metro station. The site is located on the eastern edge of St Leonards within walking distance of the St Leonards and Crows Nest town retail centres.

Figure 2 – Surrounding Context and Distance to existing and future stations

The site is occupied by two commercial buildings on separate titles as outlined in **Table 1** below.

Table 1 – Property Description and Existing Development

Property Description	Legal Description	Existing Development
50 Atchison Street	Lot 7 Sec 11 DP 2872	2 storey commercial building with frontage to Atchison Street and secondary vehicular access from Atchison Lane
52 – 56 Atchison Street	Lots 5 and 6 Sec 11 DP 2872	3 storey commercial building with frontage to Atchison Street and secondary vehicular access from Atchison Lane.

The site has a fall from east to west of 2.3 metres along Atchison Street. The site has an area of 1080 sqm comprising boundary dimensions as described in **Table 2** below.

Table 2 – Site Boundaries

Boundary	Description	Distance
Southern Boundary	Primary frontage to Atchison Street	30m
Northern (rear)	Secondary frontage to Atchison Lane	30m
Eastern boundary	Adjoins 58 Atchison Street.	36m
Western boundary	Adjoins 48 Atchison Street	36m

2.2. SURROUNDING CONTEXT

The site is located within the North Sydney Local Government Area (LGA). Administratively, St Leonards is split between North Sydney, Willoughby and Lane Cove LGA's.

St Leonards is located on Sydney's Lower North Shore. St Leonards is strategically located to high frequency public transport which connects it to the nearby centres of Sydney, North Sydney, Chatswood and Macquarie Park.

The land uses in St Leonards comprise a mix of uses including:

- Medical and hospital related uses associated with The Royal North Shore Hospital.
- Older B and C grade commercial office stock.
- Recently constructed and/or approved mixed use developments.

St Leonards is split east-west by the Pacific Highway and north-south by the North Shore Railway Line. St Leonards is undergoing urban renewal from a lower grade commercial office centre to a thriving mixed-use centre.

The urban renewal of St Leonards has been underpinned by:

- The existing strategic planning framework and priority precinct program.
- Ongoing major upgrade to the nearby Royal North Shore Hospital.
- Substantial State Government investment in the Sydney Metro and new Crows Nest Metro Station.

Recent developments include medium and high rise commercial and multi-storey mixed-use residential buildings. Some lower density residential uses remain on the fringe of the CBD to the east of Oxley Street. These areas are likely to undergo significant transition to higher densities as part of the priority precinct *St Leonards Crows Nest*. Currently under investigation by the NSW State Government.

Key land uses near the site include:

- **The Forum**: A 38 storey mixed use development built over the St Leonards railway station. The Forum includes local facilities including a supermarket, gym, restaurants and other essential services.
- **Royal North Shore Medical Precinct**: The Medical precinct comprises the Royal North Shore Hospital (RNSH), North Shore Private Hospital and the Northern Sydney Institute of TAFE. The hospital is a major employer and economic driver for the area.
- **Commercial offices**: The main commercial area is located east of the railway line. This area is characterised by a mix of commercial buildings, medical and allied health premises, hotel and residential apartments. No new commercial office buildings have been constructed east of the rail line for over 10 years.
- **Emerging mixed-use residential development**: St Leonards is undergoing transition to a mixed-use centre. New planned residential towers will transform the development profile and land uses within St Leonards. The centre will support greater diversity of uses including residential apartments above commercial podiums. At the street level, new retail uses provide activity which add to the character and vibrancy of the area.

2.2.1. Transport Network

St Leonards is a major public transport interchange. St Leonards station has one of the highest levels of rail and bus services in the Sydney Metro Area. Regular train services connect St Leonards to the major employment centres of Chatswood, Macquarie Park, Sydney CBD, and North Sydney.

The planned Crows Nest Metro station will be located close to the site south of Oxley Street and east of the Pacific Highway. The Metro will offer frequent and high capacity services to employment centres throughout Sydney.

Regular bus services connect surrounding suburbs to St Leonards Station. A bus interchange is located on the Pacific Highway south of the railway station. The interchange provides bus services to the Sydney CBD and Lane Cove, Chatswood, Epping and the Northern Beaches.

The Pacific Highway is a major regional road which connects to the M2 Motorway 2.5 kilometres to the north. The Pacific Highway continues further north to link with the M1 Pacific Motorway. The Pacific Highway provides the main route north linking Sydney to the Central Coast, Newcastle and the North Coast.

2.2.2. Royal North Shore Hospital

The Royal North Shore Hospital (RNSH) is a major regional hospital and serves the surrounding Local Government Areas (LGAs). The hospital is a principle tertiary referral centre and NSW Trauma Centre. RNSH also includes specialist state wide health services. RNSH is a tertiary teaching hospital of the University of Sydney (medicine, allied health), University of Technology, Sydney (nursing), and Australian Catholic University (nursing and allied health).

RNSH is currently undergoing a major upgrade. Construction of the Acute Care building was recently completed in 2015. A 10,000sqm “support zone” is also planned to complement the redevelopment of RNSH. This zone will include:

- Staff accommodation,
- Childcare facilities,
- Administration buildings, car parking, and
- Commercial / retail uses.

Health care services are significant employers within St Leonards. Based of 2011 census data, up to 25% of jobs within the suburb were provided by the health care sector. The importance of the health industry to local employment is emphasised within the North District Plan (GSC, 2018) and the Interim Statement for St Leonards and Crows Nest (DPE, 2017). Future development will leverage the existing medical assets to strengthen the role of the precinct. This will create knowledge-intensive jobs in the health, medical education and ancillary industries. This growth will support housing and infrastructure within the precinct.

2.3. ST LEONARDS DEVELOPMENT TRENDS

Recent high-density mixed use development has redefined the character of St Leonards. This transition is likely to continue over time as the NSW State Government implements strategic policies aimed at increasing residential densities and employment uses around future Metro stations.

High density residential uses will complement the existing employment functions of St Leonards. Mixed use development will enable the renewal of older commercial stock whilst also providing for additional housing. This renewal allows the commercial function of the centre to continue. Retail frontages will activate the precinct outside traditional office hours in the evening and on the weekends.

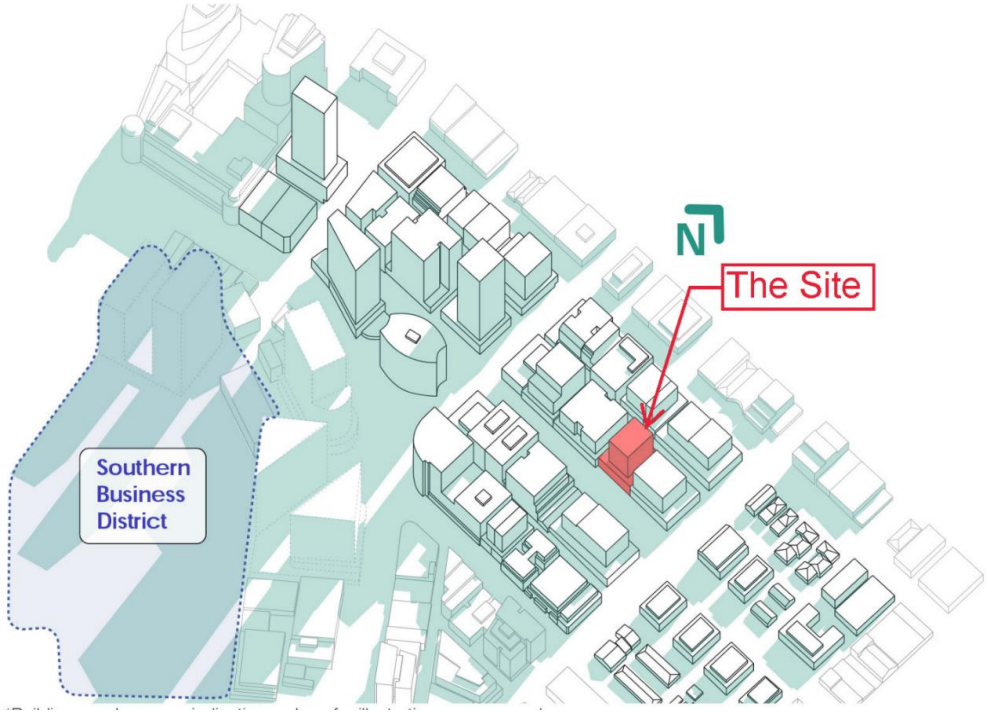
Major mixed use and residential projects being undertaken within St Leonards are detailed in **Table 3**.

Table 3 – Local Development (Major New Projects)

Site	Development	Building Height
23-25 Atchison Street	Planning Proposal	Increase building height to 56m as recommended by Council officers and as adopted by the North Sydney Local Planning Panel Minimum non-residential FSR 1.5:1 Total maximum FSR 6.3:1
84-90 Christie Street	Lane Cove LEP Amendment Gazettal (December 2017). DA to be lodged in December 2017.	46 storey mixed use residential tower
472-468, Pacific Highway	DA consent	42 storey mixed use residential tower and 28 storey mixed use residential tower
500, 504-520 Pacific Highway	DA under assessment	46 storey mixed use residential tower
619-621 Pacific Highway	Gateway Determination (November 2017)	50 storey mixed use residential tower
100 Christie Street	Planning Proposal lodged	36 storey mixed use residential tower
6-16 Atchison Street	Project completed	30 storey residential tower
1-13A Marshall Street	Current DA: Residential flat building	29 storey residential tower
71-79 Lithgow Street, 82-90 Christie Street, 84A Christie Street, and 546-564 Pacific Highway St Leonards	DA Determined November 2018	14 storey commercial building 26 storey mixed use tower 47 storey mixed use tower

Figure 3 illustrates the future built form as envisaged by the St Leonards/ Crows Nest Planning Study Precinct 2 and 3.

Figure 3 – Subject Site in Future Indicative Built Form Context



Source St Leonards and Crows Nest Planning Study – North Sydney Council

3. EXISTING PLANNING CONTROLS

3.1. NORTH SYDNEY LOCAL ENVIRONMENTAL PLAN 2013

The *North Sydney Local Environmental Plan 2013* (NSLEP 2013) applies to the site. The key provisions and objectives are summarised in **Table 4**

Table 4 – North Sydney LEP 2013 – Key Development Parameters

Parameters	Control	Objectives
Zoning B4 – Mixed Use	*Residential flat buildings* *Commercial premises* and *Shop top housing* are permitted with consent.	• *To provide a mixture of compatible land uses.* • *To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.* • *To create interesting and vibrant mixed-use centres with safe, high quality urban environments with residential amenity.* • *To maintain existing commercial space and allow for residential development in mixed use buildings, with non-residential uses concentrated on the lower levels and residential uses predominantly on the higher levels.*
Clause 4.3 Building Height	20m	*(a) to promote development that conforms to and reflects natural landforms, by stepping development on sloping land to follow the natural gradient,* *(b) to promote the retention and, if appropriate, sharing of existing views,* *(c) to maintain solar access to existing dwellings, public reserves and streets, and to promote solar access for future development,* *(d) to maintain privacy for residents of existing dwellings and to promote privacy for residents of new buildings,* *(e) to ensure compatibility between development, particularly at zone boundaries,* *(f) to encourage an appropriate scale and density of development that is in accordance with, and promotes the character of, an area.*
Clause 4.4 Floor Space Ratio	Minimum non-residential FSR 0.6:1	*(a) to provide for development with continuous and active street frontages on certain land in Zone B1 Neighbourhood Centre, Zone B4 Mixed Use and Zone SP2 Infrastructure,* *(b) to encourage an appropriate mix of residential and non-residential uses,* *(c) to provide a level of flexibility in the mix of land uses to cater for market demands,* *(d) to ensure that a suitable level of non-residential floor space is provided to promote employment and reflect the hierarchy of commercial centres.*

4. CONCEPT PROPOSAL

4.1. INDICATIVE CONCEPT SCHEME

Kann Finch have prepared a revised Design Report **(Appendix A)** and Architectural Concept (refer **Appendix B**) to inform this Planning Proposal

The following factors informed the development of the amended proposed concept design:

- *St Leonards and Crows Nest 2036 – Draft Plan*
- *St Leonards Crows Nest Planning Study – Precinct 2 and 3;*
- Feedback and discussions from Council staff that occurred between July and October 2018 to reduce the number of storeys and height by:
  - The reduction in the number of storeys to a 16 storey building height comprising a 3 storey podium and 13 storey residential tower.
  - The deletion of the mezzanine level resulting in reduced commercial floor space by 391sqm;
  - A reduced podium height but maintaining a 3 storey podium height which visually reads as an equivalent 3 – 4 storey podium height;
  - Overall reduced height to 16 Storeys (RL143.2) which is 54.2m to the parapet but noting a future lift overrun will extend above this maximum height by approximately 3.9m to RL 147.1.
- Existing and future development context;
- Public domain presentation;
- Street activation; and
- Residential amenity;

A concept design has been prepared which reflect the proposed controls and includes:

- Indicative basement car parking arrangements;
- Ground level street address; which are setback from the Atchison Street and Atchison Lane frontages.
- Above ground commercial uses, and
- Typical floor layouts of the residential apartments above with rooftop communal open space;
- Opportunities for public domain improvements on both street frontages.

The key parameters of *State Environmental Planning Policy 65 Design Quality of Residential Apartment Development* (SEPP 65) have been considered within the concept design including:

- Building separation and setbacks;
- Solar access and cross ventilation;
- Communal open space at the rooftop;
- Apartment and balcony sizes, and
- Ceiling heights.

4.2. DESIGN CONSIDERATIONS

The key features of the Preliminary Concept Design are summarised in **Table 5** below: Photomontages of the proposal are illustrated at **Figure 4**.

Table 5 – Summary of the key features.

Element	Proposed
Land uses	Ground Floor - retail/commercial uses with retail frontages to Atchison Street and partly to Atchison Lane services and vehicle entry (Atchison Lane). Levels 1 and 2 – commercial offices
New pedestrian through site link	A covered connection along the western boundary to create a north-south pedestrian link that connects Atchison Street to Atchison Lane to be delivered as part of a Voluntary Planning Agreement.
Indicative yield	1,855m^2 retail/commercial GFA 65 residential apartments.
Gross Floor Area (GFA) / Total FSR	6887m^2 / 6.4:1
Non-residential floor space (GFA/ FSR)	1,844m^2/ 1.7:1
Building height	54.2m – to top of parapet,16 Storeys (RL143.2) NB. This height does not include the lift overrun required to access the communal open space area at the roof. When the lift overrun is included, the maximum building height increases to 58.1m (RL147.1)

Figure 4 – Photomontages of Proposed Podium and Tower

Picture 1 – Photomontage of the Proposal looking north west along Atchison Street

Picture 2 – Photomontage of the Proposal looking south east along Atchison Street

Source: *Kann Finch*

4.2.1. Basement

Parking and building services will be located within the basement. The concept design illustrates 3 levels of basement parking accessed from Atchison Lane. Allowance has been made within the basement design for car, motorcycle and bicycle parking. Detailed design of the car park basement and total overall spaces will be subject to detailed design during the development application stage and will be consistent with the maximum rate of provision within the DCP or RMS Guide to Traffic Generating Development whichever is the lesser.

4.2.2. Ground Floor & Podium

The ground floor and podium concept plans provide the following:

- Three retail tenancies between 68sqm and 85sqm at ground level.
- The commercial floor space on Levels 1 and 2 has been sized to accommodate a range of business types and formats and includes:
  - A 672sqm commercial tenancy at Level 1 which accounts for the double height void over the proposed through site link.
  - A 843sqm commercial tenancy at Level 2,
- Separate lobby access for the retail uses fronting Atchison Street.
- A new covered pedestrian through site link with double height void adjacent to the western site boundary between Atchison Street and Atchison Lane. Lobby access to the main entry is also available from the through site link.
- The retail tenancies are designed to front Atchison Street, Atchison Lane and also to the pedestrian through site link.
- Vehicular access to the basement and carpark via Atchison Lane.

- At grade loading dock and waste collection area accessed from Atchison Lane.
- Separate commercial and residential waste storage areas adjacent to loading dock.

As detailed in the accompanying Design Report (**Appendix A**) and illustrated in **Figure 4** and **Figure 5** the ground floor and podium has been based on these key design principles:

- Clearly defined building entry to the residential and commercial lobby
- A safe and well-lit forecourt and through site link which encourages pedestrian movement and permeability between streets and activates the extensive ground floor retail spaces which front both Atchison Street and the through site link.
- A high amenity, fine grain public domain enhanced by paving, street furniture, pedestrian focused lighting, outdoor seating areas and landscaping.
- A podium that provides a distinct human scale at the ground level whilst providing high quality and functional commercial tenancies in the levels above.
- A podium setback that maximises sunlight to the surrounding public domain.

Figure 5 – Photomontages of proposed podium and through site link

Picture 3 – Photomontage of the proposed podium from the southern side of Atchison Street .

Source: *Kann Finch*

Picture 4 – Photomontage of the proposed through site link
Source: Kann Finch

Picture 5 – Photomontage of the proposed lobby
Source: Kann Finch

4.2.3. Tower Form

The proposed tower has a height to the parapet of 54.2m (RL 143.2). An allowance for an additional 3.9m height to the top the lift overrun is required, approximately 58.1m (RL147.1) to provide access an area for communal open space at the rooftop.

Council have advised the applicant that it is their preference to set the maximum building height at the parapet level and deal with any future lift overruns under clause 4.6 of the NSLEP 2013.

It is the applicant's preference to include the lift overrun in the maximum overall height for maximum certainty. When the lift overrun is included, the maximum building height increases to 57.9m (RL147.1)

The future development will provide a mix of unit types as follows:

- 26 one-bedroom apartments (40%)
- 13 one-bedroom apartments plus study (20%)
- 26 two-bedroom apartments (40%)

The slender tower design will have a typical floorplate GFA of 388sqm. A typical level will accommodate up to 5 apartments

The Design Report provided states that

> *"The residential floors have minimum ceiling heights to living/dining/bedrooms of 2.7 metres and 2.4 metres to non-habitable spaces. The floor to floor height is typically 3.1 metres.*
>
> *Each apartment has access to a private open space with which meet the minimum areas requirements within the SEPP 65 Apartment Design Guide. A landscaped roof terrace will provide a communal area for the future residents.*
>
> *Four of the five apartments per floor are dual aspect enhancing overall sunlight and natural ventilation.*
>
> *A minimum of 2 hours direct sunlight between 9:00am & 3:00pm in mid-winter will be enjoyed by more than 72% of the apartments. Similarly, more than 80% of apartments will be naturally cross ventilated.*
>
> *Each apartment has access to a minimum private storage space that will be provided via a combination of space within the apartment or secure storage cage within the basement levels."*

Public Benefit Offer & Voluntary Planning Agreement

A Letter of Offer for a Voluntary Planning Agreement has been prepared and will be submitted to Council under separate cover. The Letter of Offer proposes the following public benefits:

- **A new through site link** between Atchison Street and Atchison Lane, approximately 5.6 m wide and limited in height to 7.2 – 7.5 m above ground floor level. The Through Site Link will improve pedestrian circulation, to encourage active street frontages at ground level and to improve the amenity of the public domain.
- **A 3-metre building setback** from the Atchison Street boundary to improve pedestrian circulation, to encourage active street frontages at ground level and to improve the amenity of the public domain.
- **Monetary Contribution** – for the upgrade works to Hume Park.

The Draft Special Infrastructure Contribution (SIC) for St Leonards and Crows Nest is currently on public exhibition which states a contribution amount $15,100 for each additional dwelling within the contribution area. This SIC will apply to future development of the site and is proposed to fund State and regional infrastructure items such the Hume Street Park expansion. As such, it is expected that any SIC paid by the proponent would also be used to fund the works to Hume Street Park.

Discussions with Council officers identified that it is not intended to 'double up' on the contributions towards the Hume Park upgrades and expansions. However, the Draft SIC identifies that planning proposals and developments undertaken before the SIC is in place, the Department will require that planning proposals

include a satisfactory arrangement requirement to ensure the infrastructure is provided by way of a VPA with the Minister for Planning.

The formal Letter of Offer for a VPA letter of offer will be issued to Council separately. The VPA offer will inform further Council discussions including mechanisms to ensure that the proponent is not charged twice for the Hume Street Park works, once by the Council and once by the Minister for Planning. It is intended that the draft VPA will be exhibited with the Planning Proposal following Gateway Determination.

5. PLANNING PROPOSAL ASSESSMENT

This Planning Proposal has been prepared in accordance with Section 3.33 of the EP&A Act 1979 with consideration of DPE's *A guide to preparing Planning Proposals* (August 2016).

Accordingly, the proposal is discussed in the following parts:

- **Part 1** – A statement of the objectives and intended outcomes.
- **Part 2** – An explanation of the provisions that are to be included in the proposed LEP.
- **Part 3** – The justification for the planning proposal and the process for the implementation.
- **Part 4** – Mapping.
- **Part 5** – Details of community consultation that is to be undertaken for the planning proposal.
- **Part 6** – Project timeline.

An assessment of the proposal against the above parts is outlined in the following sections.

6. OBJECTIVES & INTENDED OUTCOMES & EXPLANATION OF PROVISIONS

6.1. OBJECTIVES

The primary objective of the Planning Proposal is to amend the NSLEP 2013. The amendments will provide for the urban renewal of the site to accommodate a mixed-use development on the site with a taller building form.

6.2. INTENDED OUTCOMES

The intended outcomes of the planning proposal are as follows:

- To satisfy State Government objectives to grow jobs, housing and infrastructure within the St Leonards health and education precinct and priority precinct.
- To enable the redevelopment of the land in a manner consistent with the building height and FSR parameters envisaged by the St Leonards/Crows Nest Planning Study (Precincts 2 and 3).
- To integrate the subject site with the surrounding area through improvements to adjoining public domain spaces.
- To deliver significant public domain improvements including active street frontages, high quality public domain and improved connectivity between the St Leonards train station and surrounding areas.
- To provide a mixed-use development with residential commercial and community facilities that will contribute to the creation of a vibrant and active community
- Contribute to the rejuvenation of St Leonards by encouraging and supporting development activity and supporting the diverse mixed-use nature of the precinct.

6.3. EXPLANATION OF PROVISIONS

The Planning Proposal seeks to amend the NSLEP summarised in **Table 6**

Table 6 – Existing Controls and Proposed Amendments

Parameter	**Existing Standard**	**Amended Standard**	**Map Amendment**
Building Height	20 metres	RL147.1 (58.1m) including lift overrun and RL143.2 (54.2m) to top of building parapet.	*NSLEP, 2013 Height of Buildings Map-Sheet HOB_001*
Minimum non-residential FSR	0.6:1	1.7:1	*NSLEP 2013 Minimum non-residential Floor Space Ratio Map-Sheet LCL_001*
Total maximum FSR	Not applicable	6.4:1	*NSLEP 2013 Maximum Floor Space Ratio Map-Sheet FSR_001*

7. JUSTIFICATION

7.1. NEED FOR THE PLANNING PROPOSAL

Q1 - Is the planning proposal a result of any strategic study or report?

North Sydney Council completed and endorsed a strategic review of its planning framework for the St Leonards/ Crows Nest area in 2015. The St Leonards/ Crows Nest Planning Study – Precinct 2 and 3 (the 'Planning Study') explored opportunities to intensify development across the area. The Planning Study found that capacity is available to support more intensive development within St Leonards.

The site is located within Precinct 3 of the study area. The study recommends a future building height of 16 storeys for the site. The study includes 6 design principles which relate to building height. These design principles are addressed in **Table 7** and in the Design Report at **Appendix A**.

Table 7 – St Leonards/Crows Nest Planning Study – Building Height Design Principles.

Design Principle	Comment
Reinforces the desired character of the area;	The proposed building height contribute towards the high-density character of the St Leonards Centre and will adopt a distinct podium element with a slender tower form.
Adheres to the setbacks, podium height, ground level and above podium setbacks illustrated in maps 6A and 6B;	The proposed built form with podium element will accord with the established adjacent podium and provide opportunity for a range of retail uses that will activate Atchison Street and contribute to the desired future main/civic street function. Pedestrian amenity and public benefit will be enhanced by achieving a 3m podium setback to the Atchison Street frontage and 1.5m to Atchison Lane.
Maximises sunlight access to streets, Mitchell Street Plaza, and the linear parks;	As shown in the accompanying shadow diagrams. The north south orientation of the proposed slender tower will result in faster moving shadows over the public domain and maximise sunlight to streets. The proposal will have minimal impact to the proposed linear park along Oxley Street. The building height proposed in storeys is no higher than the 16 storey height limit envisaged under the Planning Study.
Maximises sunlight access and view sharing of nearby residences;	The proposal maximises solar access to nearby residences though the proposed tower setbacks and slender form which allows for greater solar penetration between buildings. There will be some impact to views to the east from the adjacent building to the west. Generally, the eastern elevation windows are secondary windows to living spaces or bedrooms and studies. Whilst views to the Sydney CBD are restricted by the built form of the Nexus building at No. 15 Atchison

Design Principle	Comment
	Street the orientation of the living areas and balconies within this building means some regional and city views to the north and south can be maintained. Any visual aspect impacted from neighbouring lower-scale properties is reasonable. The proposed height is consistent with the planning study and the impact is considered consistent with those impacts envisaged by the Planning Study.
Provides a high level of residential amenity;	The proposed building height enables the building to achieve a high level of internal amenity including solar access and cross ventilation that is consistent with the requirements of the ADG.
Creates a safe, comfortable, accessible, vibrant, and attractive public realm and pedestrian environment.	The proposed podium setbacks are consistent with the Planning Study and as such contributes to the overall quality and usability of the public domain. The proposed building height and tower setbacks will allow sunlight to access the street level providing greater pedestrian amenity and comfort.

Q2 - Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The site is a logical and appropriate place to concentrate future growth within the North Sydney LGA. This is because the site is located within an area designated for future growth. The site is located close to services and public transport infrastructure. The planning proposal is the best means of achieving the objectives and intended outcome of the proposal. The alternative means of achieving the objectives are considered in **Table 8**.

Table 8 – Options to achieve objectives.

Option	Comment
Option 1: do nothing	Without an amendment to the statutory planning controls, the proposed Design Concept for the site cannot be achieved. This means that the associated public benefits and desired building outcome by Council in its strategic study would be lost.
Option 2: - Schedule 1 site specific clause to permit additional floor space and building height;	This approach is undesirable and is best utilised for adding 'additional permitted uses' to a zone rather than increasing built form controls such as building height and/or floor space.
Option 3: Amend the Height of Building and FSR maps	This option is considered most conventional means to give statutory effect to the proposal. Option 3 allows for the relevant strategic and site-specific merits of the proposal to be considered by Council, the DP&E, local community and relevant agencies.

7.2. RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK

Q3 - Is the planning proposal consistent with the objectives and actions of the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft strategies)?

The Planning Proposal demonstrates strategic merit through its consistency with the objectives and actions of the applicable strategic plans and policies discussed below.

7.2.1. NSW State Plan 2021

The *New South Wales State Plan* sets the strategic direction and goals for the NSW Government across a broad range of services and infrastructure. The State Plan nominates one of the key challenges for the State as being the planning challenges that arise from continued population growth.

The increased density proposed, and future redevelopment of the site is consistent with the State Plan. This is because the proposal will provide jobs and encourage housing diversity in a location close to nearby services and facilities.

7.2.2. Greater Sydney Region Plan (2017)

The *Greater Sydney Region Plan* (GSRP) continues the themes provided in the previous *A Plan for Growth Sydney.* The GSRP focuses on providing infrastructure to increase access to services and employment, via the three cities of Sydney.

Ten directions have been defined to direct growth within the identified districts. The site is within the North District. The North District Plan was finalised in March 2018. The GSRP housing targets for the North District as follows:

- A 0-5 year target of **25,950;**
- A 20-year target of **92,000.**

St Leonards and Crows Nest are identified as a Priority Growth Area and Urban Renewal Corridor. St Leonards forms part of the Eastern Economic Corridor and is defined as one of Greater Sydney's nine commercial office precincts. St Leonards, Frenchs Forest and Macquarie Park are defined as a Collaboration Area and will share resources and investment across the area.

The proposal is consistent with the objectives of the GSRP for these reasons:

- The proposal optimises the use of infrastructure given its strategic location close to existing and planned rail services. The proposal's location will encourage usage of existing and new public transport infrastructure.
- The proponent will collaborate with Government to ensure that residential growth provided will benefit the local community. This will be achieved through potentially a mix of state and local developer contributions and provision of a pedestrian through site link and towards the improvement of Hume Park.
- The proposal provides housing supply through the provision of 65 new dwellings. The new dwellings will contribute to the short to medium term housing targets for the North District. The proposal focuses on 1 and 2-bedroom apartments to deliver a range of apartment types and sizes to cater for the growing population in St Leonards.
- The proposal's strategic location integrates land use and transport and supports the creation walkable and 30-minute cities.
- The proposal will offer upgraded commercial space to revitalise investment and business activity within St Leonards. These spaces will support a globally competitive health, education precincts and supply more jobs.
- The proposal will enhance public open spaces and access around the site through public domain upgrades and provision of a through site link.
- The proposal will contribute to providing an efficient city. The proposal will promote walkable neighbourhoods and low carbon transport options. The site is near to existing and future public transport, services which will reduce private car use.

7.2.3. North District Plan (2018)

The site is located within North District of Greater Sydney. The revised *North District Plan* reflects changes to the districts and the broader vision of Sydney as a three-city metropolitan region.

The key targets of *North District Plan* are below:

- Housing – an additional 92,000 dwellings by 2036.
  - North Sydney has a 5-year housing target of 3,000 new dwellings.
- St Leonards has a baseline job target of 54,000 and an upper level target of 63,500 by 2036.

The proposal is consistent with the *North District Plan* and the identified 'Actions' for St Leonards for these reasons:

- The proposal provides housing near to services, jobs and transport. The proposal delivers more jobs and residential capacity to leverage off the NSW State Government's significant investment in the Sydney Metro.
- The proposal is consistent with the productivity objectives of the plan and will grow jobs in the centre. The proposal upgrades older commercial floor space to suit a wider range of businesses and services. The mixed-use proposal will deliver an integrated land use and transport outcome which promotes the 30-minute city.
- The proposal will increase housing capacity in St Leonards. The proposal will foster liveable healthy communities by ensuring people can live where they can assess jobs, transport and services without a car.
- The proposal will contribute to providing services and social infrastructure through a proposed VPA.
- The proposed renewal will contribute to creating a vibrant and active local centre with high quality public spaces. Active retail frontages will be provided to both Atchison Street and the proposed through site link.
- The proposal delivers high quality open space by providing opportunities to beautify the site's street frontage. A new public through site link will contribute to the network of accessible pedestrian spaces in the centre.

7.2.4. St Leonards and Crows Nest 2036 – Draft Plan

The *St Leonards and Crows Nest 2036 – Draft Plan* (Draft Plan 2036) was released be the DP&E in October 2018 and is part of a suite of documents which provide a framework for positive change in Crows Nest and St Leonards. These documents include:

- Draft Local Character Statement,
- Draft Green Plan,
- Draft St Leonards and Crows Nest 2036 Plan, and
- Draft Special Infrastructure Contribution Scheme.

These documents, currently on exhibition identify opportunities for renewal and rezoning in St Leonards and Crows Nest and is based on a vision for growth and improvement in the area to 2036. The plan has also been closely informed by community aspirations as identified in the draft Local Character Statements. A draft Special Infrastructure Contribution Scheme has been developed alongside the draft Plan to assist with funding and delivery of State and regional infrastructure to support the areas sustainable growth.

The Draft Plan is consistent with the strategic direction for the area and has been shaped by the principals within the Region and District Plan.

The Planning Proposal is aligned with the guiding design principles relating to Place, Landscape, Built Form, Land Use and Movement outlined within the Draft Plan as demonstrated in **Table 9.**

Table 9 – Alignment with the St Leonards and Crows Nest 2036 – Draft Plan

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
Vision	
Place	
A vibrant community	The proposal will contribute to achieving a vibrant community within what Council intends to be St Leonards main civic street. The proposal will provide an activated frontage and ground plane with a new through site link that will promote a thriving 18-hour economy.
A place that protects its past	The proposal will not impact on any Heritage Items or Heritage Conservation Areas.
Movement	
An accessible place	An activated ground plane with through site link to Atchison Lane will enhance the public domain as an easy place to walk and move through.
Built Form	
A well designed place	The Planning Proposal will positively contribute to the emerging character of St Leonards. The proposal is compatible in height, scale and orientation with the future built form. The proposal complements the existing character and varied (higher and lower) planned building heights on surrounding sites.
Land use	
An employment hub	The Planning Proposal supports a range of diverse retail, employment and residential uses. These uses will be delivered on a site which has historically been commercial only. The proposal will contribute to achieving a genuine mixed-use precinct within the St Leonards CBD.
A home for people of all ages	The planning proposal will facilitate a future residential development that will provide a mix of homes to the diverse range of people within the area.
Landscape	
A greener place	The proposal does not impact upon the provision of parks and public green spaces in the immediate vicinity.
Guiding Design Principles	
Design Criteria The following design criteria should be considered for future development in the area:	

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
Meet solar height planes in this Plan (identified in figure 11 on page 26).	The proposed built form does not impact upon the areas identified in Figure 11.
Consideration of quality streetscape aspects such as setbacks, street wall height and heritage buildings.	The proposed street wall and setbacks respond to the context of the site which slopes down to the east. The three-storey setback retains consistency with the built form objectives of Council's St Leonards and Crows Nest Study The planning proposal will facilitate a high-quality mixed-use residential development with active ground floor uses and a through site link to Atchison Street that reinforces a human scale and provides greater pedestrian amenity and areas for outdoor dining.
Acknowledge key views and vistas such as key long-distance vistas which offer sky views, and vistas where a building may terminate the view.	The built form and height is generally consistent with the controls envisaged for the site under the draft Plan and as such will not significantly impact on key long distance views and vistas.
Avoid a monolithic street wall effect through the distribution of higher buildings.	The proposed 3 storey podium avoids a monolithic street wall effect as it provides a step down consistent with the topography with slopes down to the east.
Transition heights from high rise areas down towards existing lower scale areas, including areas not proposed for height changes, and Willoughby Road.	Building Heights are consistent with the overall heights envisaged for this section of Atchison Street of 16 storeys.
Area wide Design Principles	
Place	
Ensure new development retains and enhances important heritage elements by using sympathetic building materials and preserving key views and vistas.	Whilst not within a Heritage Area, building materials will be selected at detailed design stage as part of a future Development Application.
Retain and enhance the village atmosphere in and around Crows Nest, particularly along Willoughby Road.	The proposal is not located within Crows Nest or Willoughby Road and as such will not impact on the village atmosphere. However, the proposed retail spaces will contribute towards Council's plans for activating Atchison Street as a main street.
Ensure no additional overshadowing of public open spaces and important places in accordance with solar access controls identified on page 49 of the Plan.	The shadow diagrams demonstrate that there will be no additional overshadowing of the public open spaces within this figure.
Apply casual surveillance and universal access principles to new development to	Casual surveillance of the public domain can be achieved through the active uses on the ground floor fronting the

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
create a safe, inclusive and comfortable environment.	new through site link and Atchison Street. Universal access principles will be considered as part of the detailed design.
New development should have consideration to wind impacts demonstrated through a wind assessment	As illustrated in the concept design report the proposed building has been designed to include an awning that will provide further protection to the public domain. A wind assessment can be provided at the Development Application stage once the detailed design is further progressed.
Landscape	
New buildings adjoining Hume Street Park should contribute to the village green atmosphere. They should also provide an active frontage to the park and encourage connections between Willoughby Road, Hume Street Park and Crows Nest Sydney Metro Station.	The site does not front Hume Street Park.
New development along Chandos, Oxley and Mitchell Streets should provide wider setbacks to enable the creation of greener streets.	Not applicable.
New development adjoining the new green link should contribute to its landscape character. For example, planter boxes, lighting, green walls, deep planting, landscaped setbacks and forecourts.	The development does not adjoin the new green link.
New development in nominated areas along Pacific Highway should be setback 3 metres and incorporate elements such as avenue planting, below ground setbacks for deep soil planting.	The development is not located on the Pacific Highway.
Incorporate new street trees to improve the overall tree coverage in the area	Street trees and landscaping of the public domain will be considered at detailed design stage.
Built Form	
Consider cumulative impacts of new developments on existing areas, including overshadowing, wind impacts and view loss.	The proposal is consistent with the expected built form envisaged by the St Leonards and Crows Nest Study Overshadowing impacts are discussed in section 7.3.1 of this planning proposal.
Contain taller buildings between St Leonards Station and Crows Nest Station and on nominated significant sites along the Pacific Highway.	The built form is consistent with this approach being on Atchison Street between St Leonards and the proposed Crows Nest Train Station.

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
In transition areas between low and high-rise developments, new development should consider the prevailing scale and existing character in the design of their interfaces.	The proposal is not located within a transition area.
New building design should provide high on-site amenity and consider street width and character by providing ground and upper level setbacks and awnings to achieve a human scale at street level.	The building envelope has considered amenity. The podium will be setback 3m from the boundary with an awning provided over the footpath along Atchison Street. A 3.25m rear setback will be provided from the Podium to Atchison Lane. Upper level tower setbacks will 6m to the side boundaries, allowing for a well separated built form with access to light and air. Approximately 75% of the street edge is activated by retail space and residential/commercial lobbies. A new through site link will be provided which will include entries to new retail tenancies.
Land-Use	
Ensure new development contributes to a range of dwelling types in the area to cater for all life cycles.	The concept design submitted with the Planning Proposal demonstrates the ability to provide a range of dwelling types.
Protect key industrial land at Artarmon that services much of the North Shore.	Not applicable
Ensure new employment sites in the area cater to a range of business types and sizes.	The retail and commercial spaces within the podium have been appropriately sized to cater for a range of business types and sizes.
Foster development of high technology and health related uses in the light industrial area t support the surrounding hospitals	Proposal is not located within the light industrial area adjacent to RNSH Hospital however could support such uses if required.
Investigate locations for a new primary and high school in the area to support the growing community.	Not applicable.
New development in the mixed-use zone should contribute to delivery of active streets by providing a range of uses at ground floor.	An active street frontage will be provided with retail spaces fronting Atchison Street and the new through site link.
Protect large commercial core zoned sites to ensure employment uses are protected into the future.	Site is zoned mixed use however still provides over the required amount of commercial floor space

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
Movement	
New development should contribute to the improvement of the walking and cycling network in the area as well as help to connect to wider regional areas.	The proposed through site link contributes to the improvement of walking and cycling network in the area.
Identify opportunities to improve safety along existing pedestrian and cycling routes.	The proposal improves safety for pedestrians through the upgraded public domain and provision of a through site link. The proposal will have no impact on the existing bike lane on the opposite side of Atchison Street.
New development should encourage use of public transport and reduce the need to use a private car. Innovative solutions such as car sharing are encouraged.	The number of car parking spaces will be determined through the detailed design and will consistent with the maximum rates within the North Sydney Development Control Plan. The accompanying TIA has recommended that • Secure bicycle parking be provided, and • Travel Demand Management measures such as a Green Travel Plan be implemented to improve the mode share of public transport and active transport.
New commercial developments should incorporate end of trip facilities to encourage more people to walk and cycle to work.	End of trip facilities for the commercial component can be considered at the detailed design stage.
Relevant Actions **Place**	
Change the layout of Atchison Street to encourage reverse setbacks to support more active uses and allow for green elements such as planter boxes	The proposed built form has been developed in consultation with Council officers and includes a 3m setback to the podium along Atchison Street with an awning. This allows more area for the public domain at ground level improving the human scale and fine grain elements and encouraging activity around the new through site link
Built form	
Provide transitions between areas of change and no change when amending planning controls and include controls relating to solar amenity and configuration.	The site is within an area undergoing change to higher densities.
Amend planning controls to implement appropriate setbacks and street wall heights as shown in figure 26 and 27 Street Wall – 4 Storeys	The proposed 3 storey podium maintains the scale of a 4-storey podium/street wall through generous floor to ceiling heights albeit with a 3m setback rather than the reverse setback approach recommended within the Draft Plan.

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
Amend planning controls to maintain a combination of mixed use and stand-alone commercial zones.	The objective of this Planning Proposal will deliver genuine mixed-use outcome for this site, which would incorporate a range of land uses including: • **Retail** – located on the ground floor with active frontages to Atchison street. A 'through site link' with active frontages will also be provided between Atchison Street and Atchison Lane. • **Commercial** –commercial/non-residential space in the podium which could include flexible office floor space, or enterprise or learning hub • **Residential** – apartments within the tower with a mix of dwelling types
Amend planning controls to adopt reverse setbacks and active street frontages to improve the interface between new buildings and the public domain along Atchison Street. Reverse Setbacks – 3m	Reverse setbacks are not considered an appropriate design outcome on this site, the increased 3m setback allows for greater public space at the front of the building which will contribute to the active areas provided adjacent to the new through site link. An awning will contribute to mitigating potential wind impacts to the public domain.
Amend planning controls to stipulate heights as outlined in figure 24. 16 Storeys	The proposal is for a 16-storey building with height to the parapet of 54.2m (RL143.2). The lift overrun will be required to extend a further 3.9m above 16 storeys (RL 147.1) in order to access a rooftop communal open space area which will enhance amenity for residents.
Overall FSR – 6:1	As noted the Planning Proposal intends an overall FSR of 6.4:1. However the proposal provides a non-residential component of 1.7:1 which is 0.7:1 over the minimum requirement within the Draft Plan of 1:1,0.2:1 over the minimum requirement in the St Leonards and Crows Nest Study of 1.5:1 and 1.1:1 over the minimum requirement in the current NSLEP 2013.
Council's can still consider and progress planning proposals for individual sites and the St Leonards South area while this plan is being finalised.	The planning proposal was submitted to Council prior to the release of the Draft Plan 2036, as such it is requested that Council consider and progress the proposal which was based broadly on Council's adopted St Leonards and Crows Nest Planning Study.
Land Use	
Balance commercial and residential uses within the St Leonards Core with a minimum non-residential floorspace requirement for mixed use zones in planning controls while retaining B3 Commercial Core zoning on appropriate sites (see figure 25).	The proposal achieves this through its provision of 1,844 sqm (1.7:1) of non-residential floor space which is 764sqm over the minimum requirement within the Draft Plan (1:1) and 224sqm over the minimum within the St Leonards and Crows Nest Study of 1,620sqm (1:5:1).

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
Amend the planning controls to specified minimum non-residential floorspace on B4 Mixed Use sites proposed for the greatest density. Minimum Non-Residential Floor Space 1:1	Achieved refer above.
Government alliance to investigate the introduction of Complying Development Provisions for cafes, restaurants and retail with extended trading hours. Introduce active street frontage provisions into the planning controls for Atchison Street and Clarke Lane.	Active street frontage has been provided to Atchison Street and the proposed through site link.
Investigate options to provide appropriate flexibility in planning controls to allow allied health uses to be considered on a site by site basis.	The non-residential floorspace components are flexible enough to adapt to changes to permissible land uses.
Allow for more active retail uses in the St Leonards Commercial core	Active retail uses are encouraged and provided for on the ground floor.
A new active linear park provides connections to key regional open spaces north and south of the area including active recreation spaces. A passive urban open space will be delivered through the expansion of Hume Street Park.	The proposal will not impact on the delivery of the Hume Street Park or the Oxley Street Linear Park.
Opportunities for mixed use development to cater for variety in housing to recognise the diverse community.	The proposal provides a range of apartment configurations and sizes to suit market demand within the area.
Set appropriate targets for affordable housing in the area consistent with the Sydney Region Plan	Noted.
Movement	
Provide east-west pedestrian and cycling connections to the north-south regional pedestrian and cycling links. These connections will extend the existing east-west cycling routes provided along Warringah Freeway, Chandos Street, Burlington Street and Henry Lane.	The proposed through site link will enhance mid-block pedestrian and cycle connections to these routes.
Provide shade and shelter for pedestrians with reverse setbacks along Atchison Street.	Whilst reverse setbacks are not provided an awning and covered through site link will offer weather protection to pedestrians.

St Leonards and Crows Nest Draft Plan	Planning Proposal Response
Investigate providing improved pedestrian crossings along key walking and cycling streets including but not limited to Chandos Street, Willoughby Road, Atchison Street and Clarke Lane. New crossings are itemised in the infrastructure list. See figure 30	Noted.
Include in the planning controls, active street front provisions for Atchison Street and requirements for reverse setbacks to both sides of Clarke Lane and Atchison Street to widen footpaths	Active street front is provided by proposed retail tenancies and front setbacks from Atchison Street and the proposed through site link.
Ensure that planning provisions encourage end of journey facilities such as bicycle parking and showers to be provided as part of all commercial, mixed-use, health, education and industrial developments for use by building occupants.	End of trip facilities will be considered in the detailed design (Development Application) stage.
Undertake detailed traffic modelling to inform the development of an area wide car parking policy. In conjunction with Councils, review planning controls with a view to introduce maximum, or if appropriate no additional, parking in new developments.	Parking has been provided in accordance with the maximum requirements of the NSDCP 2013. The future DA will be required to provide parking for the residential component in accordance with the ADG which requires the lesser of either the NSDCP 2013 or the RMS Guide to Traffic Generating Development.
Review planning controls to ensure the provision of parking for share car programs is enabled.	More applicable to Council, however spaces for car share programs may be considered as part of the detailed design at DA stage.

7.2.5. NSW Long Term Transport Master Plan and the Draft Future Transport 2056 Strategy.

The draft Future Transport 2056 strategy (the Strategy) is the 2017 update of the NSW Long Term Transport Master Plan (the plan). The plan is a 40-year vision for mobility in NSW. Both plans are addressed below.

The NSW Long Term Transport Master Plan

The *NSW Long Term Transport Master Plan* outlines several projects that will impact Sydney. The plan aims to build efficiently on existing transport connections, including those with the Sydney CBD through the Global Economic Corridor. These connections will connect people with jobs and other opportunities which in turn will support productivity and economic growth.

The Plan recognises that State Government investment in transport will grow and enhance businesses and precincts. The plan includes strategies to improve road capacity, reduce journey times and public transport solutions to promote accessibility across Sydney.

This Planning Proposal is consistent with the objectives of the *NSW Long Term Transport Master Plan*. The proposal provides a high density residential, commercial and community development near train and bus networks. The existing network provides excellent linkages to key nearby employment centres.

These short and long-term objectives promote the connectivity of St Leonards to the CBD and surrounding centres. The mixed-use proposal is timely given the proposed infrastructure upgrades planned to improve travel times between northern Sydney and the CBD.

Draft Future Transport 2056 strategy

The strategy outlines the vision for the Greater Sydney mass transit network. The strategy identifies St Leonards as a 'strategic centre' linked directly to the 'Harbour City' (the Sydney CBD) via North Sydney.

The draft Future Transport vision sets six state-wide outcomes to guide investment, policy and reform and service provision. They provide a framework for network planning and investment aimed at supporting transport infrastructure.

The locality will significantly benefit from the frequency of transport services and upgraded infrastructure provided by the proposed public transport upgrades.

Q4 - Is the planning proposal consistent with a Council's local strategy or other local strategic plan?

The St Leonards/ Crows Nest Planning Study – Precinct 2 and 3 (the 'Planning Study') May 2015, has been adopted by Council. The study provides the framework to inform future proposals in the locality.

The subject site is included within the defined study area and is situated within Precinct 3. This Precinct is identified by the Planning Study as a medium density mixed use residential area. The Planning Proposal provides a 16-storey mixed use residential building as recommended in Council's Planning Study.

The planning proposal does seek to vary the requirement for a four (4) storey street wall and 3m setback above the street wall. This is variation is considered justifiable for the following reasons:

- The proposed 3 storey podium maintains the scale of a 4- storey podium/street wall through the application of generous floor to ceiling heights and will step down from the podium of the adjacent building at 40-48 Atchison Street to suit the fall towards Oxley street.
- The tower and podium are setback 3m from the boundary which allows for a more generous public domain increased pedestrian amenity and activation of the ground floor retail tenancies at ground level.
- The podium height is consistent with the established podium heights to adjacent buildings and provides a pedestrian scale which contributes to the desired character of St Leonards as emphasised within the Planning Study
- The proposed tower setback to Atchison Street aligns with the adjacent tower at 4—48 Atchison Street to the west and both defines the street edge and allows for greater internal amenity to the apartments fronting Atchison Street The reduced above podium setback to Atchison Lane aligns with the northern façade of the adjoining building at 40-48 Atchison street and was endorsed by the Design Review Panel on the basis that 6m setbacks to the East and West tower facades were maintained.

Notwithstanding the above the proposed podium and tower remain consistent with the built form objectives within the St Leonards / Crows News Planning Study as detailed in **Table 10** below:

Table 10 – Assessment against the built form objectives

Objective	Response
Award-winning architectural design offering quality mixed use and commercial development	The proposed building envelope allows for a high-quality design with flexible commercial spaces that will offer high levels of amenity and functionality. The proposed envelope will accommodate slender tower design above the podium that allows for design excellence and apartments that will be consistent with the requirements of the ADG.
A built form that transforms St Leonards into a modern, mixed use centre, and	The proposed built form will contribute to the continued revitalisation of St Leonards as a modern, mixed use centre through the development of an

Objective	Response
	older commercial site that is located within an area undergoing significant transition and intended for urban renewal within the both the Draft Plan 2036 and the Planning Study.
Additional residential and employment capacity to meet the demand for new jobs and housing in the LGA	The proposal will add both additional residential and employment capacity above the minimum requirements to meet the demand for new jobs and housing within the LGA.
Human scale to streets & laneways	The 3 -4 storey podium incorporates a ground plane design that recognises pedestrian scale and connectivity by adopting a 3-metre building setback from the Atchison Street boundary which facilitate an active street frontage. The proposed through site link from Atchison Street to Atchison Lane will also contribute towards Council's plans for a well-connected centre.
Greater pedestrian amenity and more room for outdoor dining	The proposed setbacks and covered through site link will facilitate active frontages providing greater activation and pedestrian amenity with future opportunities for outdoor dining.

Q5 - Is the planning proposal consistent with applicable State Environmental Planning Policies?

The proposals consistency with current State Environmental Planning Policies (SEPPs) and Regional Environmental Plans (REPs) (Deemed SEPPs) are summarised in **Table 11**.

Table 11 – Consistency with State Environmental Planning Policies

State Environmental Planning Policy	Comment
SEPP (Educational Establishments and Child Care Facilities) 2017	Not applicable
SEPP Amendment (Child Care) 2017	Not applicable
SEPP (State and Regional Development) 2011	Not applicable
SEPP (Sydney Drinking Water Catchment) 2011	Not applicable
SEPP (Urban Renewal) 2010	The site is located within the St Leonards/Crows Nest precinct. Whilst the State government has commenced an urban renewal investigation in this area the proposal responds to a comprehensive precinct study by Council in 2015. As such, processing of this application should proceed independently of the wider precinct investigation.
SEPP (Affordable Rental Housing) 2009	Not applicable

State Environmental Planning Policy	Comment
SEPP (Western Sydney Parklands) 2009	Not applicable
SEPP (Exempt and Complying Development Codes) 2008	Not applicable
SEPP (Western Sydney Employment Area) 2009	Not applicable
SEPP (Rural Lands) 2008	Not applicable
SEPP (Kosciuszko National Park – Alpine Resorts) 2007	Not applicable
SEPP (Infrastructure) 2007	The future development application will not trigger referral to the RMS.
SEPP (Miscellaneous Consent Provisions) 2007	Not applicable
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	Not applicable
SEPP (Sydney Region Growth Centres) 2006	Not applicable
SEPP (State Significant Precincts) 2005	Not applicable
SEPP (Building Sustainability Index: BASIX) 2004	The BASIX SEPP requires residential development to achieve mandated levels of energy and water efficiency. The proposed development concept has been designed with building massing and orientation to facilitate future BASIX compliance, which will be documented at the development application stage.
SEPP (Housing for Seniors or People with a Disability) 2004	Not applicable
SEPP (Penrith Lakes Scheme) 1989	Not applicable
SEPP (Kurnell Peninsula) 1989	Not applicable
SEPP No. 1 Development Standards	Not applicable
SEPP No. 14 Coastal Wetlands	Not applicable
SEPP No. 19 Bushland in Urban Areas	Not applicable
SEPP No. 21 Caravan Parks	Not applicable
SEPP No. 26 Littoral Rainforests	Not applicable
SEPP No. 30 Intensive Agriculture	Not applicable
SEPP No. 33 Hazardous and Offensive Development	Not applicable
SEPP No. 36 Manufactured Home Estates	Not applicable
SEPP No. 44 Koala Habitat Protection	Not applicable
SEPP No. 47 Moore Park Showgrounds	Not applicable
SEPP No. 50 Canal Estate Development	Not applicable
SEPP No. 52 Farm Dams and Other Works in Land and Water Management Plan Areas	Not applicable

State Environmental Planning Policy	Comment
SEPP No. 55 Remediation of Land	Given the ongoing commercial use on the site it is expected that the site is suitable for the proposed use. Nevertheless, a Phase 1 Preliminary Site Investigation will be undertaken as part of any future development application.
SEPP No. 62 Sustainable Aquaculture	Not applicable
SEPP No. 64 Advertising and Signage	Not applicable
SEPP No. 65 Design Quality of Residential Apartment Development	An analysis of the indicative concept design has been undertaken by Kann Finch Architects. The analysis confirms that the development could achieve an acceptable level of internal amenity for future residents. Based on the indicative apartment layout tested by Kann Finch, the following is noted: • The residential component consists of 65 apartments suited to a variety of lifestyles. An indicative dwelling mix is 1 bedroom units (60%) 2 bedroom units (40%). • The residential floors have floor to floor height of 3.1 metres. The proposal is able to achieve the minimum celling heights under SEPP 65. • Each apartment has access to a secure private open space such as a balcony with minimum areas of 8-12m^2 based on apartment size. A communal open space area at the rooftop will also be provided for occupants • When modelled against the surrounding future context, approximately 72% of apartments will receive 2 hours of sunlight in mid-winter. • 80% of apartments will achieve cross ventilation. A maximum of 15% of apartments have no direct sunlight which meets the ADG guide.
SEPP No. 70 Affordable Housing (Revised Schemes)	Not applicable
SEPP No. 71 Coastal Protection	Not applicable
SEPP Vegetation in Non-Rural Areas	Not applicable
SEPP Coastal Management 2018	Not applicable
SEPP (Gosford City Centre) 2018	Not applicable
Draft Environment SEPP	There is no existing vegetation on the site. The site is within an existing urban area and as such will have minimal additional impact on the surrounding natural environment.
Draft SEPP Primary Production and Rural Development	Not applicable

Table 12 – Consistency with Regional Environmental Plans (Deemed SEPPS)

Regional Environmental Plan	Comment
Sydney REP No. 8 – Central Coast Plateau Areas	Not applicable
Sydney REP No. 9 – Extractive Industry	Not applicable
SREP No. 16 – Walsh Bay	Not applicable
SREP No. 20 – Hawkesbury-Nepean River	Not applicable
SREP No. 24 – Homebush Bay Area	Not applicable
SREP No. 26 – City West	Not applicable
SREP No. 30 - St Marys	Not applicable
SREP No. 33 – Cooks Cove	Not applicable
Sydney (SREP) (Sydney Harbour Catchment) 2005 (Deemed SEPP)	The site is within the Sydney Harbour Catchment to which this plan applies. The proposal is unlikely to have any additional impact on the water quality of Sydney Harbour as it is within an existing high-density urban environment. Strategies to reduce overall surface runoff and water retention on the site will be considered as part of the detailed design.
Greater Metropolitan REP No. 2 – Georges River Catchment	Not applicable
Willandra Lakes REP No. 1 – World Heritage Property	Not applicable
Murray REP No. 2 – Riverine Land	Not applicable

Q6 - Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

The Planning Proposal's consistency with applicable section 117 Ministerial Directions is outlined in **Table 13.**

Table 13 – Section 117 Compliance Table

Ministerial Direction	Comment
1. Employment and Resources	
1.1 Business and Industrial Zones *(a) encourage employment growth in suitable locations,* *(b) protect employment land in business and industrial zones, and* *(c)support the viability of identified strategic centres.*	The proposed commercial floor space will replace lower grade commercial floor space with upgraded space which will provide for a wider range of new businesses. The ground floor will include a new through site link which provides activation and vibrancy to these new retail and commercial tenancies. The proposal provides a non-residential component which exceeds both the NSLEP 2013 (0.6:1), the more recent St Leonards and Crows Nest Planning Study (1.5:1) and the St Leonards and Crows Nest 2036 – Draft Plan (1:1)

Ministerial Direction	Comment
	The revised proposal provides 1,844sqm of non-residential GFA. 1. The proposed new employment spaces will have the potential to generate up to 106 jobs. The proposed concept and use will support the viability of the St Leonards as it transitions into a mixed-use centre which requires more retail service offering than presently available. Despite reducing commercial floorspace, the proposal satisfies Council's recommended non-residential minimum FSR, and as such achieves the objectives of this Direction.
1.2 Rural Zones	Not applicable
1.3 Mining, Petroleum Production and Extractive Industries	Not applicable.
1.4 Oyster Aquaculture	Not applicable
1.5 Rural Lands	Not applicable
2. Environment and Heritage	
2.1 Environmental Protection Zones	Not applicable
2.2 Coastal Protection	Not applicable
2.3 Heritage Conservation	The site has no identified or known items of European or Aboriginal significance, as such the proposal does not trigger further consideration.
2.4 Recreation Vehicle Areas	Not applicable
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	Not applicable
3. Housing, Infrastructure and Urban Development	
3.1 Residential Zones	The proposal provides a mix of dwelling types to meet future population needs. The site is well placed to accommodate high density residential uses. The proposed mixed-use development will make efficient use of existing services and infrastructure. It will provide sufficient housing to help meet infill housing targets and reduce the need for land release on the metropolitan fringe. Residential accommodation in this location will have minimal impact on the natural environment or resource lands. This is because the precinct and sites are already developed and are not constrained by natural hazards. The proposal is consistent with

Ministerial Direction	Comment
	the scale supported by Council through its adopted Planning Study.
3.2 Caravan Parks and Manufactured Home Estates	Not applicable
3.3 Home Occupations	Not applicable
3.4 Integrating Land Use and Transport	The Planning Proposal is consistent with the direction for the following reasons: • The proposal to increase density on the B4 mixed use zoned site supports the principle of integrating land use and transport. • The site has excellent access to public transport. It is within walking distance of the St Leonards train station and future Crows Nest Station, as well as existing bus services. • The site's proximity to public transport would provide opportunities for residents and employees to conveniently use public transport thereby reducing private vehicle trip movements. • The proposal would provide additional employment within the North Sydney LGA close to existing services and infrastructure. The site is close to nearby centres which offer employment and other services. Additional local service provision within walking distance of new dwellings will be incorporated into the future design of the site.
3.5 Development Near Licensed Aerodromes	The site is not close to Sydney Airport however it is affected by obstacle limitation surface of 156 AHD. While the proposed building height is below the OLS height, during construction the crane may exceeded this height. Accordingly, the provisions of clause (4) to the Direction applies. As such an aviation safety assessment referral as a 'controlled activity' will be required by CASA and Airservices Australia as part of this planning proposal assessment.
3.6 Shooting Ranges	Not applicable
4. Hazard and Risk	
4.1 Acid Sulphate Soils	There is no mapping of acid sulfate soils (ASS) by Council. Given the location of the site high on a ridge the likelihood of ASS is low. Evidence of recent construction close to the site demonstrate ASS is not a constraint to the future proposed development of the

Ministerial Direction	Comment
	site. Further assessment can be carried out if necessary as part of the development application.
4.2 Mine Subsidence and Unstable Land	Not applicable
4.3 Flood Prone Lane	Not applicable
4.4 Planning for Bushfire Protection	Not applicable
5. Regional Planning	
5.1 Implementation of Regional Strategies	Not applicable
5.2 Sydney Drinking Water Catchments	Not applicable
5.3 Farm Land of State and Regional Significance on the NSW Far North Coast	Not applicable
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
5.8 Second Sydney Airport: Badgerys Creek	Not applicable
5.9 North West Rail Link Corridor Strategy	Not applicable
5.10 Implementation of Regional Plans	The proposal is consistent with this Direction. This proposal outlines an assessment demonstrating the achievement of the objective of this Direction.
6. Local Plan Making	
6.1 Approval and Referral Requirements	This is an administrative requirement for Council.
6.2 Reserving Land for Public Purposes	This is an administrative requirement for Council.
6.3 Site Specific Provisions	The proposal is consistent with this direction. It does not seek to impose unnecessarily restrictive site-specific planning controls, rather conventional LEP amendments such as building height and FSR changes to Council maps.
7. Metropolitan Planning	
7.1 Implementation of A Plan for Growing Sydney	The planning proposal is consistent with the planning principles; directions; and priorities for subregions, strategic centres and transport gateways contained in A Plan for Growing Sydney. This is further discussed at **Section 7**.

Ministerial Direction	Comment
7.2 Implementation of Greater Macarthur Land Release Investigation	Not applicable
7.3 Parramatta Road Corridor Urban Transformation Strategy	Not applicable
7.4 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable
7.5 Implementation of Wilton Priority Growth Area Interim Land use and Infrastructure Implementation Plan	Not applicable

7.3. ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACT

Q7 - Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats will be adversely affected as a result of the proposal?

The site is fully developed and comprises little vegetation. There are no known critical habitats; threatened species or ecological communities located on the site and therefore the likelihood of any negative impacts is minimal.

Q8 - Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The site is free of major constraints. There are no likely environmental effects associated with the future development of the land that cannot be suitably mitigated through further design development. Preliminary investigations have been undertaken as outlined below.

7.3.1. Overshadowing

An additional three-dimensional shadow study has been undertaken by Kann Finch. The shadow study has considered the potential future-built form within Atchison Street including the future development envelopes adjacent and opposite.

The Planning Study acknowledged that the east-west orientation of the urban blocks within St Leonards meant that a large proportion of the ground plane with St Leonards is overshadowed throughout the day.

The submitted shadow analysis demonstrates that the orientation of the site means that some overshadowing of the public domain and buildings to the south is unavoidable with the built form anticipated by the Draft Plan 2036 and the Planning Study.

There will be some additional impact to the development sites opposite between 9am and 3pm however as demonstrated in the shadow study there are already impacts from existing buildings and likely to be further impacts when surrounding sites are re-developed. These impacts are considered acceptable in the context of an emerging high-density environment. It is also noted that the current levels of solar access from surrounding properties will not remain in perpetuity. This is because the site is located within a Strategic Centre which is required to continue to grow housing and employment numbers, meaning the building form must also expand.

There will be no impact to the Mitchell Street plaza which is located to the west of the site. Further the shadow study demonstrates that the shadows from the proposed building are likely to overlap with the shadows generated by a future building envelope on the site to the east and as such will not generate any additional overshadowing of the proposed linear park on Oxley Street between 2pm and 3pm.

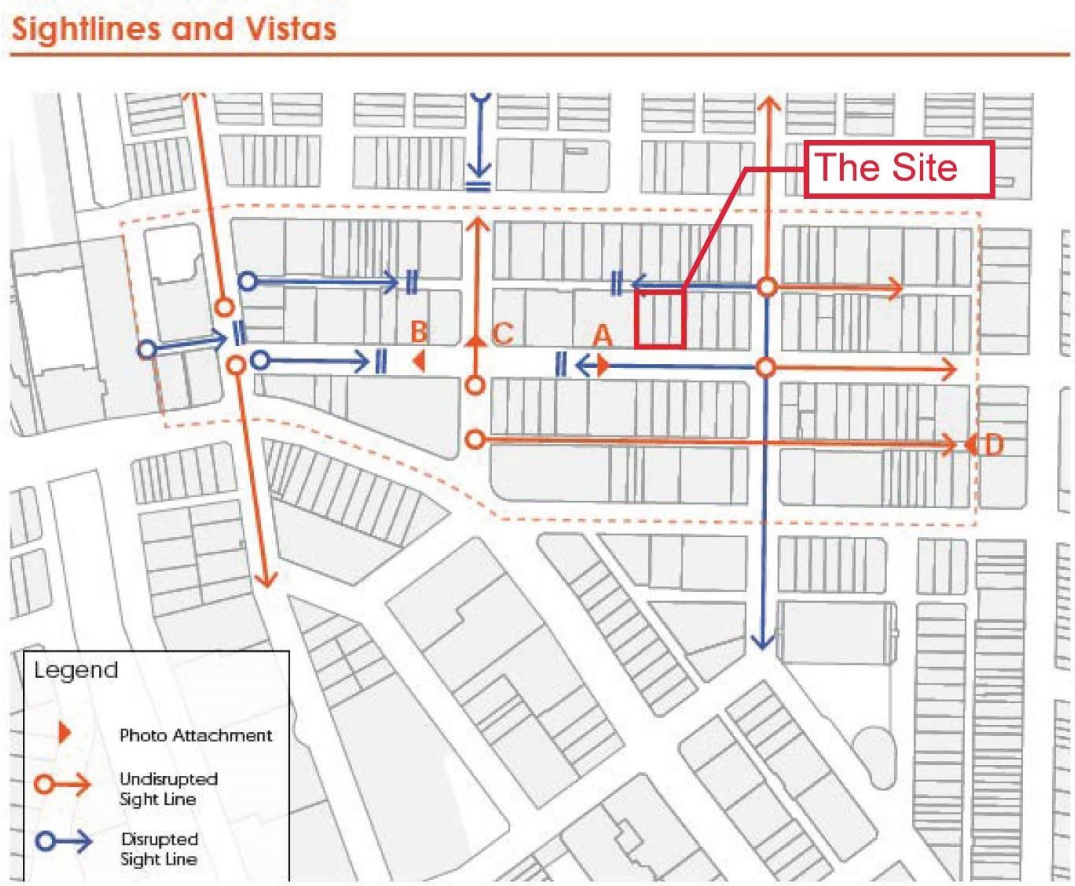
Whilst there will be some impact to the surrounding public domain within Atchison Street There will be no additional impacts to any other spaces and parks identified within the Planning Study including Hume Street Park.

7.3.2. View Impacts

The height and bulk of the St Leonards built form is already undergoing significant transformation. Several tall building forms have recently been approved or are pending approval on surrounding sites. The surrounding lands will continue to undergo building height increases over the coming years through the priority precinct vision.

As demonstrated in **Figure 6** which has been sourced from the Planning Study, the key views and sightlines are generated by the predominantly 'orthogonal' street grid and undulating topography which generates long sightlines and vistas. As the proposal is located mid-block on Atchison Street it will not impact on these views. However, the development uplift will have some unavoidable impact on views from surrounding taller buildings.

Figure 6 – Key Sightlines and Vistas



Source: St Leonards Crows Nest Planning Study - 2014

The revised concept design was prepared in accordance with the St Leonards/ Crows Nest Planning Study and feedback from North Sydney Council. This study has determined that the site and surrounding sites are suitable for a 16-storey building. This will result in a building form taller that its neighbouring properties to the immediate west.

The proposal has the potential to impact on some views from the adjacent 11 storey residential building at No. 48 Atchison Street to the east. This site currently benefits from partial district views to the east and north. However, we note that generally, the eastern elevation windows are secondary windows to living spaces or

bedrooms. Views from this site to the Sydney CBD to the south are currently impacted by the built form of the Nexus building at No. 15 Atchison Street.

Any impact to the visual aspect of neighbouring properties resulting from the development uplift to neighbouring lower-scale properties is reasonable. This is because both Council's own Planning Study for the precinct and the new Draft Plan 2036 have endorsed the height of the proposed site. The proposal is therefore consistent with the broader change in density and visual impacts in the centre.

In summary, the proposed built form presents a well-considered building form with a defined podium base and slender tower above which will provide views to the sky between future tower forms. The design responds to the key site characteristics and framework set by the St Leonards/Crows Nest Planning Study. The built form is appropriate for this location and compatible with the surrounding built form typologies.

7.3.3. Traffic Impacts

A Transport Impact Assessment (TIA) has been undertaken by ARUP in relation to the proposal. This assessment is included at **Appendix C**. The TIA has reviewed the existing conditions of the site including travel behaviour, public transport, road network, parking and traffic volumes. Significantly for this planning proposal, the review notes that Travel to Work data from the 2016 census indicates that over 51% of residents within St Leonards take the train to work.

The TIA provides a preliminary assessment of the design concept. The TIA includes a review of the proposed parking provision in relation to the controls within the NSDCP 2013. The TIA also reviews the servicing arrangements and traffic generation on the site.

The TIA notes that the site's location close to various modes of public transport will not generate significant parking demand. TIA states that the proposed parking provision is consistent with the requirements of the NSDCP 2013. The TIA also confirms that the proposed servicing arrangements are acceptable given the low frequency of service vehicles and that deliveries can take place out of hours. This will minimise potential conflicts with other vehicles and pedestrians.

The TIA has assessed the potential traffic generation. Whilst there will be a net increase in traffic generation when compared to current conditions, this increase was assessed to be negligible. The TIA does not envisage any adverse impacts to the performance of surrounding intersections and therefore the surrounding road network is expected to operate at current levels.

The TIA makes the following recommendations to be undertaken as part of any future DA.

- Secure bicycle parking be provided, and
- Travel Demand Management measures such as a Green Travel Plan be implemented to improve the mode share of public transport and active transport.

The TIA concludes that the proposal is supportable on traffic related considerations.

7.3.4. Waste Management

Elephants Foot have been engaged to provide an Operational Waste Management Plan (OWMP). A copy of their OWMP is attached in **Appendix D**.

The OWMP identifies the different waste streams which are likely to be generated in the operational phase of the development.

The OWMP provides the following details:

- How the waste will be handled and disposed for both residential and commercial waste.
- Estimation of volumes of waste for both residential and commercial uses on the site.
- Details of bin sizes/quantities and waste rooms.
- Descriptions of the proposed waste management equipment used including its installation and design.
- Information on waste collection points and frequencies.

The OWMP provides that the concept can accommodate the spatial requirements for waste and recycling, further details will be provided at development application stage.

7.3.5. Servicing

A Services Report has been prepared by Cardno and included at **Appendix E**. The site is located centrally within the St Leonards Town Centre close to existing services. The Building Services Report has reviewed the indicative services requirements of the proposed concept design including:

- Mechanical Services
- Electrical Services,
- Fire Services, and
- Hydraulic Services.

In liaison with the relevant service providers the proposal will be subject to further capacity testing to determine the suitability of existing service and utility infrastructure and any upgrades required.

7.3.6. Sustainability

The Services Report also includes the following Ecologically Sustainable Development (ESD) initiatives which can be incorporated into the development.

The ESD initiatives include:

Mechanical

- High efficiency (high COP) motors and equipment;
- Cross flow ventilation to apartments;
- Insulated ductwork;
- Variable speed drives on all fan motors;
- Individual toilet exhaust fans and FCR OA fan interlocked to local light switches;
- CO monitoring in the carpark;

Electrical

- After hours switches.
- Energy efficient lighting and lighting systems;
- Lighting levels and lighting power densities to all other areas in accordance with BCA – Section J requirements;
- Digital power metering for all common area submains and house distribution boards as per BCA part J8;
- Reduction of “spill” lighting; and
- Power factor correction.

Hydraulic

- Rainwater harvesting for landscape irrigation;
- Low flow fittings and fixtures;
- Additional insulation to hot water pipework;
- Solar hot water systems with gas boost.

In addition to the above, the concept design has been prepared with building massing and orientation to facilitate future BASIX compliance. BASIX will be addressed at the detailed development application stage. The Services Report confirms that the development shall meet and where possible exceed the NCC energy efficiency requirements of Part J of the BCA.

7.3.7. Noise

The site is situated a short distance away from road noise associated with the Pacific Highway and surrounded by existing buildings that will shield noise intrusion. As such mitigating measures are unlikely to be required.

7.3.8. Wind

Wind impacts are expected to be limited due to the proposed height and the incorporation of an awning along the Atchison Street frontage. The parapet design of the podium will also reduce potential downward wind effects to the public domain.

7.3.9. Summary

Overall, the Planning Proposal, will not result in any significant environmental effects that would preclude the LEP amendment. The site is therefore appropriate for the high-density mixed use proposed.

Q9 - Has the planning proposal adequately addressed any social and economic effects?

To determine whether the proposal adequately addresses economic effects, it is important to understand to the current market conditions and how the proposal responds. Through realising economic benefits, a positive social on-flow effect will also occur with the public benefiting through job creation and public domain upgrades.

Economic and Social Benefits

The proposed development at 50-56 Atchison Street will result in several direct economic benefits, during the construction stage and during ongoing operations. The proposed retail and commercial tenancies will provide a variety of spaces for new businesses and services. The proposed new employment spaces will have the potential to generate up to 106 jobs.

Improved public spaces will be created by the new through site link with active retail uses to foster social gathering and interaction.

State and Commonwealth Interests

Q10 - Is there adequate public infrastructure for the planning proposal?

The site is served by existing utility services. The site is located to allow incoming residents and workers to capitalise on the wide range of infrastructure and services existing and planned within the area. It will reinforce existing investment in public transport infrastructure, through increased patronage of the existing station at St Leonards.

A range of established services are available within proximity of the site, including health, education and emergency services networks.

Q11 - What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?

No consultation with State or Commonwealth authorities has been carried out to date on the Planning Proposal.

The Gateway Determination will advise the public authorities to be consulted as part of the Planning Proposal process. Any issues raised will be incorporated into this Planning Proposal following consultation in the public exhibition period.

In accordance with the Gateway Determination, public exhibition of the planning proposal is required for a minimum of 28 days. North Sydney Council must comply with the notice requirements for public exhibition of planning proposals in Section 5.5.2 of *A guide to preparing local environmental plans*.

8. MAPPING

The Planning Proposal seeks to amend the following NSLEP 2013 Maps as illustrated in **Figure 7** to **Figure 9**:

- Height of Buildings Map Sheet - HOB_001_010
- Non-Residential Floor Space Ratio Map Sheet - LCL_001_010; and
- Maximum Floor Space Ratio Map Sheet FSR_001_010.

The proposed mapping changes are outlined below:

Figure 7 – Proposed Height of Buildings Map

Source: Urbis

Figure 8 – Proposed Maximum FSR

Source: Urbis

Figure 9 – Proposed minimum non-residential FSR

Source: Urbis

9. COMMUNITY CONSULTATION

Section 3.33 of the EP&A Act requires the relevant planning authority to consult with the community in accordance with the gateway determination. It is anticipated that the Planning Proposal will be publicly exhibited for at least 28 days. This is in accordance with DP&E's *A Guide to Preparing Local Environmental Plans*.

At a minimum, the notification of the public exhibition of the Planning Proposal is expected to involve:

- A public notice in local newspaper(s);
- Notification on the North Sydney Council website; and
- Written correspondence to owners and occupiers of adjoining and nearby properties and relevant community groups.

The proponent has met with Council officers in 2015 and on several occasions in 2018 to discuss the planning proposal. The proponent considered Council's feedback and refined the scale and definition of the building envelope to address the officer's requirements and the outcomes of the St Leonards Crows Nest Planning Study.

10. PROJECT TIMELINE

It is anticipated that the LEP amendment will be completed within 9-12 months. An indicative project timeframe is provided below.

Table 14 – Indicative Project Timeline

Stage	Timeframe and/or Date
Consideration by North Sydney Council	February 2018
Planning Proposal referred to DPE for Gateway Determination	April 2018
Gateway Determination by DPE	To be determined
Commencement and completion of public exhibition period	Dates are dependent on Gateway determination. Anticipated timeframe for public exhibition is 28 days.
Consideration of submissions	6 weeks
Consideration of the Planning Proposal post-exhibition	6 weeks
Submission to DPE to finalise the LEP	To be determined
Gazettal of LEP Amendment	To be determined

11. CONCLUSION

The Planning Proposal seeks an amendment to the North Sydney Local Environmental Plan 2013. The amendment will allow for a high-density mixed-use development at 50-56 Atchison Street, St Leonards.

The Planning Proposal has been prepared in accordance with:

- Section 3.33 of the Environmental Planning and Assessment Act 1979 and,
- The relevant DPE guidelines.

The planning proposal report provides strategic and site-specific justification for the LEP amendments.

The proposed Concept Design has been informed by a detailed site analysis and pre-lodgement engagements with Council.

The proposed amendments to the NSLEP 2013 will achieve an appropriate development outcome for the following reasons:

- The proposal achieves an appropriate built form and scale outcome consistent with the objectives of local planning policy. The proposal is also consistent with both the existing and emerging scale of development within St Leonards.
- The proposal will positively contribute to the State planning strategic goals. These goals include increasing employment and housing densities in centres with access to existing and planned public transport.
- The proposal will deliver a range of benefits for the community, including:
  - Direct and indirect jobs during the construction phase
  - Ongoing employment from the retail and commercial uses proposed for the site
  - Growth of employment from the current uses that are consistent with the new direction and forecast need for retail and commercial uses.
  - A public through site link on the western boundary to enhance activation to the proposed retail tenancies. The specifics of the offer will be discussed with Council during the assessment of the planning proposal and ultimately formalised through a Voluntary Planning Agreement.
  - A 3-metre building setback from the Atchison Street boundary to improve pedestrian circulation, to encourage active street frontages at ground level and to improve the amenity of the public domain.
  - Monetary Contribution for the upgrade works to Hume Park.
- The site has good access to services and public transport. The proposal will achieve environmental benefits by encouraging more trips within and outside of the centre without cars.

Overall, the proposal includes significant public benefits that will facilitate the development of a high-quality mixed-use development.

The Planning Proposal supports the State government's objective to increase densities in major centres where there is good access to public transport and facilities.

The Planning Proposal provides renewal of lower grade commercial office space which will allow for a greater mix of both retail and commercial uses.

The residential component of the proposal capitalises on the sites location close to amenities, services and public transport.

The proposal will ensure a development with significant economic and community benefit. The proposal has demonstrated both strategic and site-specific merit and as such warrants Council's support.

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APPENDIX A CONCEPT DESIGN REPORT

APPENDIX B CONCEPT ARCHITECTURAL PLANS

APPENDIX C TRANSPORT IMPACT ASSESSMENT REPORT

APPENDIX D OPERATIONAL WASTE MANAGEMENT PLAN

APPENDIX E BUILDING SERVICES REPORT

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CONCEPT DESIGN REPORT

FOR

MIXED USE DEVELOPMENT

50 - 56 ATCHISON STREET,
ST. LEONARDS

PLANNING PROPOSAL SUBMISSION

30 JANUARY 2019

KANNFINCH

CONTENTS

1.0 THE VISION

Introduction

This report provides a detailed analysis of the surrounding context of the site at 50 -56 Atchison Street St Leonards. The report also provides an analysis of the amended concept plans prepared in response to feedback and discussions with North Sydney Council.

The development controls outlined in the St Leonards Crows Nest Planning Study adopted by Council in May 2015 have been carefully studied to inform the design.

The Vision

The proposed built form is for a 16 storey building with a strongly articulated podium, and a setback tower above. The development includes 3 levels of basement parking, 3 generous podium levels (including retail and office facilities) and 13 levels of residential apartments. The ground plane incorporates a double storey through site link to Atchison Lane and a setback to Atchison Street.

In addition the proposed development will stimulate job growth, business activity, street front activation, outdoor dining opportunities and enhancement of the public domain.

A tower that will act as an urban landmark for the precinct and provide high quality living and working spaces.

2.0 THE SITE
SITE DESCRIPTION

50 -56 Atchison Street St Leonards is a 1080 m^2 site that is located mid block between Atchison Street to the south and Atchison Lane to the north.

The site is currently occupied by a 2 storey commercial building at 50 Atchison St and a 3 storey commercial building at 52-56 Atchison Street.

The site has 2 street frontages to the Atchison Lane and Atchison Street, with Mitchell Street to the west and Oxley Street to the east of Atchison Street.

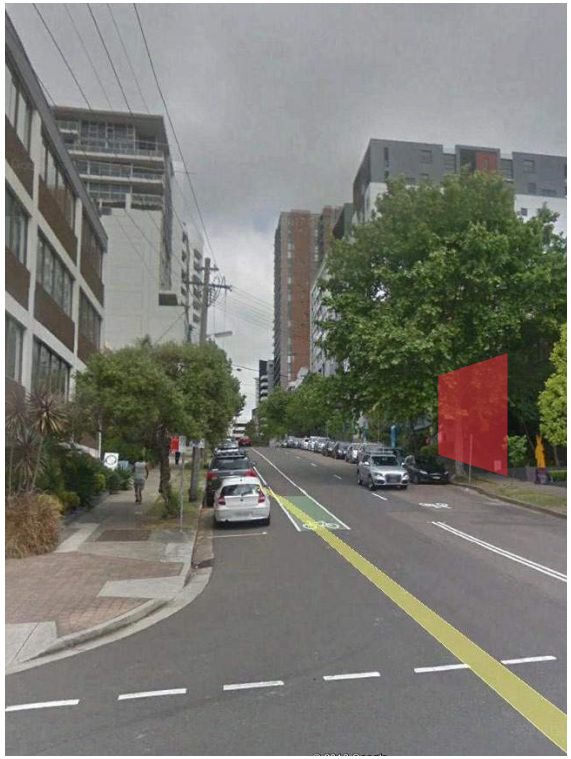
The site has a fall from east to west of 2.3 metres along Atchison Lane and a 2.6 meters along Atchison Street frontages.

The site is located within 400m of St Leonards station, within the 'centre' of the St Leonards precinct.

AERIAL PHOTOGRAPH | ST LEONARDS AND SURROUNDS

2.0 THE SITE

CURRENT STREET VIEWS



1. VIEW FROM OXLEY STREET

2. CORNER OF MITCHELL AND ATCHISON ST

3. VIEW FROM ATCHISON LANE

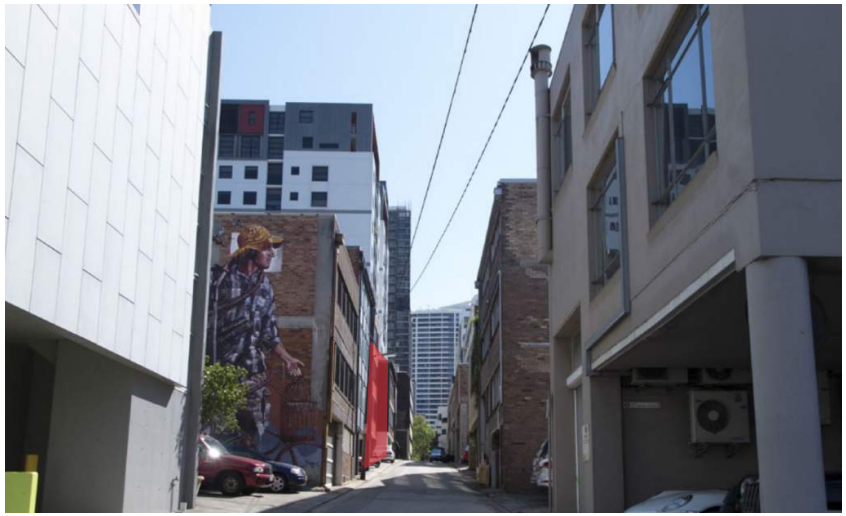
2.0 THE SITE

CURRENT STREET VIEWS

4. LOOKING WEST ALONG ATCHISON STREET TOWARDS URBAN CENTRE

5. LOOKING EAST ALONG ATCHISON STREET TOWARDS OXLEY STREET

6. SIDE WALL OF ADJOINGING RESIDENTIAL BUILDING AT 40-48 ATCHISON STREET



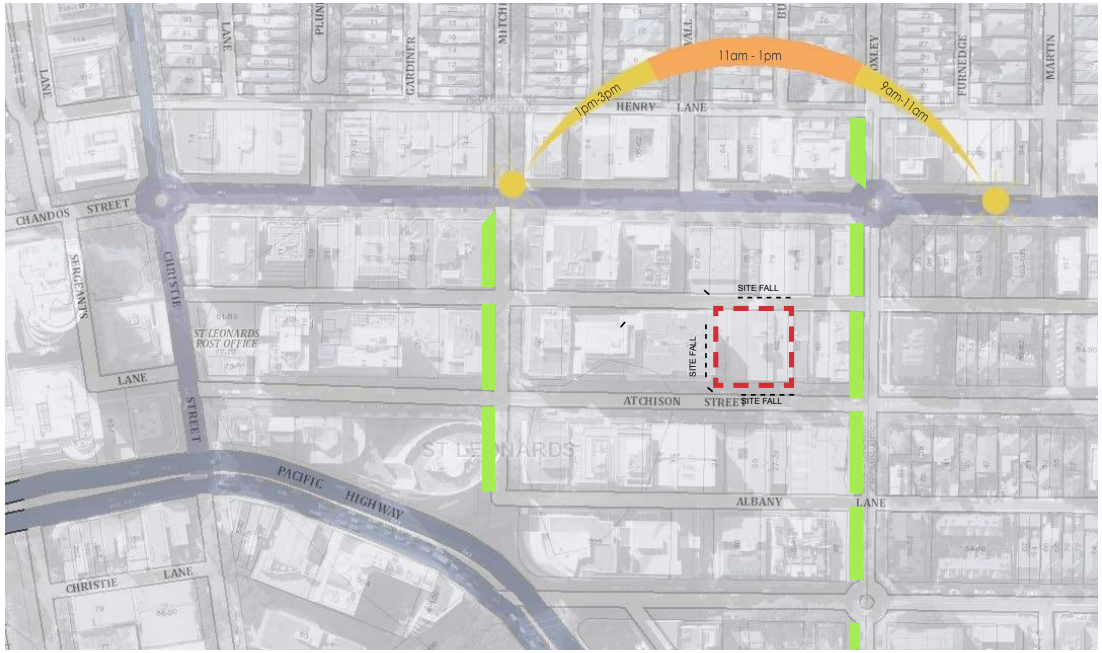
7. LOOKING WEST ALONG ATCHISON LANE

3.0 SITE ANALYSIS

SUN PATH

The site is located towards the eastern periphery of the St Leonards major employment centre, and within the West Oxley 'creative quarter' that has been identified in the St Leonards Crows Nest Planning Study.

The site has a significant fall of approximately 2.3m from west to east along Atchison Street, and a variable cross fall of less than 1m between Atchison Lane (high point) and Atchison Street.



Proposed linear Parks

3.0 SITE ANALYSIS

PUBLIC OPEN SPACE

IMAGE FROM ST LEONARDS CROWS NEST PLANNING STUDY 2015

3.0 SITE ANALYSIS

Topography

St Leonards is located at the top of a prominent ridgeline with sloping topography across and beyond the study area. The land varies up to 19 metres in height. **The high points are generally located mid-block, between Mitchell St and Atchison St and sloping away in all directions.** There is a low point in the section between Willoughby Rd and Oxley St towards Crows Nest village centre, where the original creek line used to run. As a result of the steep topography, a number of ground floor entries to buildings are either located above or below street level.

Views & Vistas

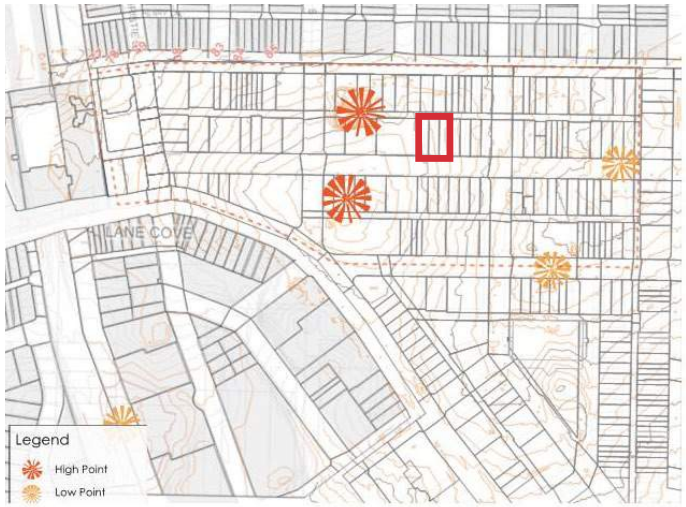
The undulating topography of St Leonards in combination with its **mostly orthogonal street grid has created many opportunities for long sightlines and vistas.** These sightlines offer pedestrians a natural means of way finding. Most streets have a strong building line which also assists with wayfinding and establishes a strong spatial character to the area.

Public Transport

St Leonards is an established and well serviced transport interchange with around half of all trips made to the area by public transport, 80% of which are by train. The station is the 7th most patronised station on the rail network outside the CBD, with more than 16,000 daily arrivals and departures in 2012 (NSW Bureau of Transport Statistics). Bus routes run frequently along the Pacific Highway and Willoughby Rd.

Vehicular Traffic

The study area is well served by the road network however **congestion is common at the traffic signals on Albany St and Christie St intersections of the Pacific Highway,** resulting in significant vehicle delays at certain times of the day. The congestion is largely a result of regional traffic from the Gore Hill Freeway heading for the Pacific Highway. The remaining intersections operate satisfactorily.



TOPOGRAPHY

VIEWS & VISTAS

PUBLIC TRANSPORT & PEDESTRIAN ACCESS

VEHICULAR TRAFFIC
EXTRACT FROM ST LEONARDS CROWS NEST PLANNING STUDY 2015

KANNFINCH

NOTE: THIS SITE ANALYSIS INFORMATION IS AN EXTRACT FROM THE ST LEONARDS CROWS NEST PLANNING STUDY 2015.

3.0 SITE ANALYSIS

Constraints

The key constraints to transforming St Leonards into a high amenity mixed use centre are:

- a lack of useable public open space;
- **no focus for pedestrian activity or retail;**
- **no community facilities;**
- **high volume / speed of traffic on key streets;**
- inconsistent lighting, paving and furniture;
- unsafe laneways.

Opportunities

Conversely, St Leonards offers a number of opportunities that can be capitalised on by future projects in the area:

- **strong public transport connections;**
- **'fine bones' of a creative precinct;**
- a few 'anchor' establishments;
- **integrate new community facilities;**
- potential to activate laneways;
- **enhance 'civic' status of Atchison Street.**

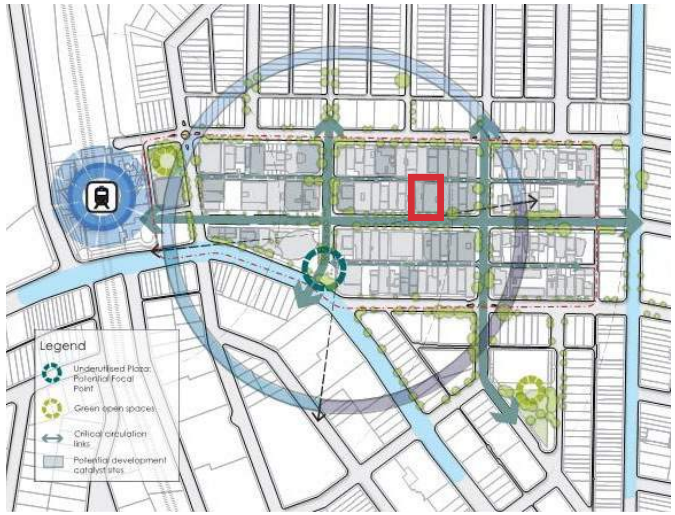
Street Activation

There is a slowly emerging cafe and dining character to the area, anchored by key establishments like the Nilgiris on Christie St, the Moody Chef on Atchison St and Bazaar on Albany St. Outdoor dining is best supported by the few cafes along Chandos St that enjoy good sunlight throughout the day. Overall, retail and dining offerings are fragmented and struggle to compete with the high amenity of Willoughby Rd.

Public Open Space

Christie Street Reserve is the only public green space in the study area. As the reserve receives ample sunlight and offers reasonable levels of shade under mature trees, it is well utilised by the working community at lunchtime. At present, Mitchell Street Plaza is the only paved public space, although the forecourt to the IBM building is also publicly available and offers more sheltered seating.

CONSTRAINTS



OPPORTUNITIES

STREET ACTIVATION

PUBLIC OPEN SPACE
EXTRACT FROM ST LEONARDS CROWS NEST PLANNING STUDY 2015

KANNFINCH

NOTE: THIS SITE ANALYSIS INFORMATION IS AN EXTRACT FROM THE ST LEONARDS CROWS NEST PLANNING STUDY 2015.

4.0 DEVELOPMENT CONTROLS

CURRENT APPLICABLE DEVELOPMENT CONTROLS

Current Development Controls

The current development controls applicable to the site are as follows:

- North Sydney Local Environmental Plan (LEP) 2013:
- North Sydney Development Control Plan (DCP) 2013
- SEPP 65 – Apartment design Guide
- St. Leonards Crows Nest (SLCN) Planning Study 2015

Draft Development Controls

In addition to these existing controls, the NSW Department of Planning & Environment issued a draft St Leonards and Crows Nest 2036 Plan in October 2018.

For the purposes of this concept design study, the SLCN planning study 2015 has generally been taken as the primary controlling document applicable to the site.

FSR

The site is not FSR limited under either the existing LEP/DCP controls or the SLCN planning controls Study 2015 but the draft 2036 plan proposes maximum overall FSR of 6.0:1.

The SLCN planning study applies a **minimum non-residential FSR of 1.5:1 to the site, whilst the draft 2036 plan proposes a minimum of 1.0:1.** The proposed retail and commercial space within the podium would generate a non-residential FSR in excess of 1.7:1.

The proposed overall FSR is 6.4:1.

NON-RESIDENTIAL FSR
EXTRACT FROM ST LEONARDS CROWS NEST PLANNING STUDY 2015

50 -56 ATCHISON STREET
ST LEONARDS

4.0 DEVELOPMENT CONTROLS

BUILDING SETBACKS

Building Setbacks

The SLCN Planning Study 2015 proposes the following building setbacks:

Zero podium side setback to adjoining sites (east and west facades) plus 6m above podium setback (as requested/ recommended by the Design Review Panel).

A 3m whole of building setback and above podium setback to Atchison street. The proposed southern facade aligns with the tower facade at the adjoining building at 40-48 Atchison street. Refer to setback diagram on page 18.

1.5m whole of building setback and 4m above podium setback to Atchison lane. A reduced above podium setback of 3.25m is proposed, which aligns with the northern facade of the adjoining building at 40-48 Atchison street. Refer to setback diagrams on page 18.

The revised above podium setback to the northern facade was endorsed by the Design Review Panel on the basis that the 6m setbacks to the East and West tower facades were maintained.

The draft 2036 Plan proposes a 'reverse' street front setback of 3m at ground level and zero setback for the remaining podium levels with setbacks to all sides of the tower form above.

GROUND LEVEL SETBACK AND PODIUM HEIGHT

MINIMUM ABOVE PODIUM SETBACK

EXTRACT FROM ST LEONARDS CROWS NEST PLANNING STUDY 2015 | BUILDING SETBACKS

4.0 DEVELOPMENT CONTROLS
BUILDING HEIGHT

Building Height

Under both SLCN Planning Study 2015 and draft 2036 Plan, the maximum building height is limited to the 16 storeys for the site. The proposed 3 storey podium and 13 storey tower complies with this requirement. The overall building height is approx. 54.2m to the top of the parapet, not including any lift overruns.

Whilst the SLCN Planning Study and draft 2036 Plan proposes a 4 storey podium (with 3 storeys to lane ways), the proposed podium height will read as 4 storeys to Atchison street due to the generous floor to floor heights and will step down from the podium of the adjacent building at 40-48 Atchison Street to suit the fall towards Oxley street. Refer to elevation diagram on page 16.

Design Principles - The Proposal

• The entry to the residential and commercial lobby is clearly defined and reinforces the desired character of the area with a **safe and well-lit forecourt and through site link** between Atchison Street and Atchison lane. The proposal is consistent with the identified building height and will provide opportunity for a quality mixed use development and an active pedestrian spaces to a future civic street and contribute to the vibrancy of St Leonards.

• Pedestrian safety of Atchison Lane as a result of the through site link encourages pedestrian movement and permeability between the streets and activates the extensive ground floor retail spaces.

• **Pedestrian amenity is enhanced by achieving the required podium setback.** The development proposes high quality large format paving with a widened footpath accessible to all, with street furniture, pedestrian focused lighting, al fresco dining, along with timber bench seating and a green wall.

• The podium height will be similar to adjacent established heights and provides pedestrian scale and the desired character of St Leonards.

• The proposed set back maximizes the sunlight and creates an accessible space that flows and transforms the character of the surrounding public domain and **maximises sunlight access to the proposed linear parks to the east towards Oxley Street**.

• The proposed tower form achieves the setback requirements and enjoys district views to the North and East, and some CBD views between the surrounding towers.

• The upper space of the roof is a **communal space with a roof top garden** and timber bench seating which encourages social and recreational use.

EXTRACT FROM ST LEONARDS CROWS NEST PLANNING STUDY 2015 | BUILDING HEIGHTS

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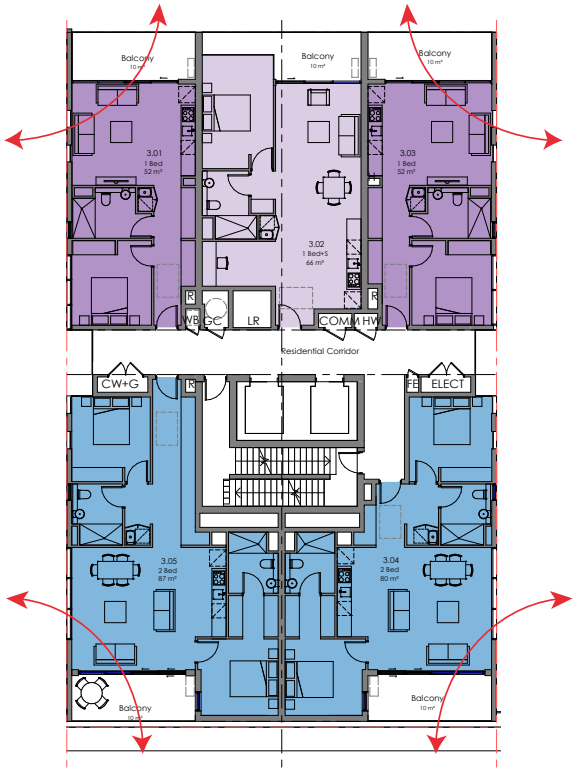


Apartment Design

The accommodation consists of 65 apartments suited to a variety of lifestyle. The dwelling mix is 39 x 1bedroom (60%) **and 26 x 2bedroom** (40%). Some apartments have studies or media alcoves.

The residential floors have minimum ceiling heights to living/dining/bedrooms of 2.7 metres and 2.4 metres to non-habitable spaces. **The floor to floor height is typically 3.1 metres.**

Each apartment has access to a private open space with minimum areas of $8m^2/10m^2/12m^2$ for 1bed/2bed/3bed respectively and a landscaped communal roof area.

There are 4 (out of 5) dual aspect apartments on each floor. Dual aspect apartments **enhance daylight access and natural ventilation**.

A minimum of 2 hours direct sunlight between 9:00am & 3:00pm in mid winter will be enjoyed by more than 72% of the apartments. Similarly more than 80% of apartments will be naturally cross ventilated.

Each apartment has access to a minimum of $6m^3/8m^3/10m^3$ of private storage space (for 1bed/2bed/3bed respectively) via a combination of space within the apartment or secure storage cage within the basement levels.

4.0 DEVELOPMENT CONTROL

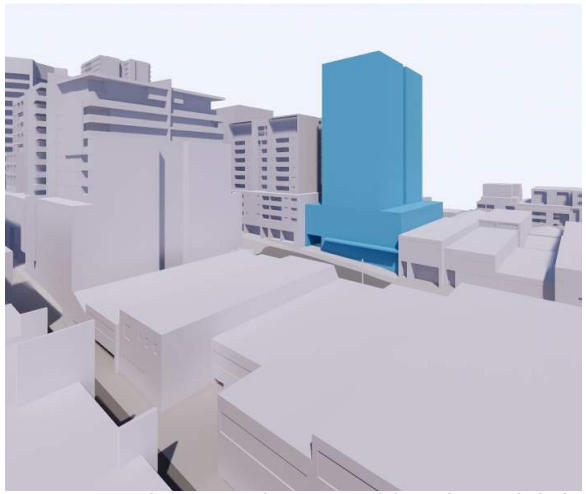
SEPP 65 / ADG

Indicative Compliance Schedule

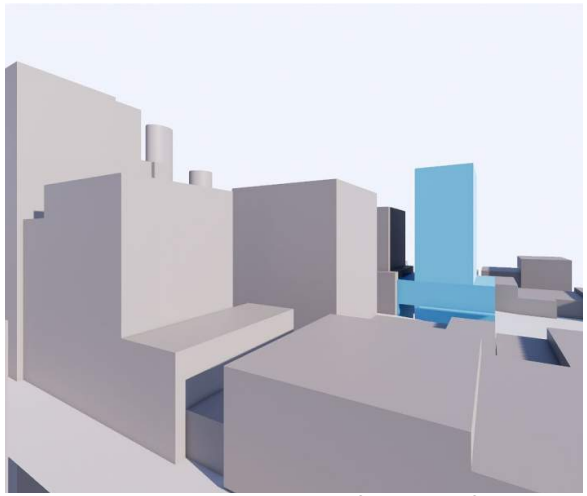
DESIGN CRITERIA	REQUIRED MIN.	AVERAGE TOTAL
4A. Solar Access	70%	72%
4B. Natural Ventilation	60%	80%
4C. Ceiling Height	100%	100%
4D. Size & Layout	100%	100%
4E. Private Open Space	100%	100%
4F. Common Circulation	100%	100%
4G. Private Storage	100%	100%

5.0 MASSING STUDIES

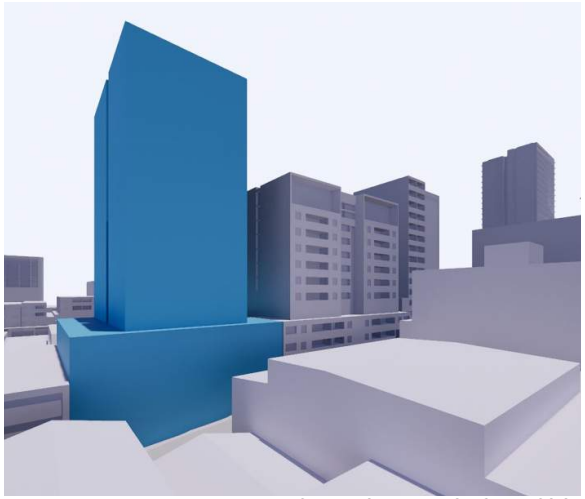
SITE MASSING CONTEXT



BIRD'S EYE VIEW FROM ALBANY LN & OXLEY ST INTERSECTION

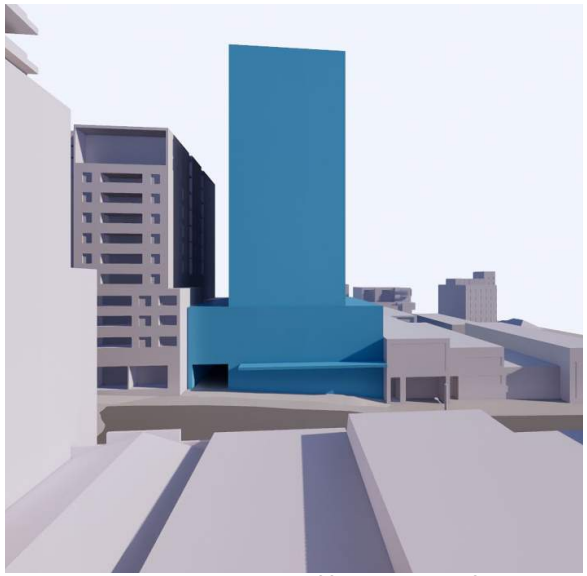


BIRD'S EYE VIEW FROM ALBANY LN



NORTH EAST VIEW FROM CHANDOS ST

SOUTH EAST VIEW FROM 35 ATCHISON ST.

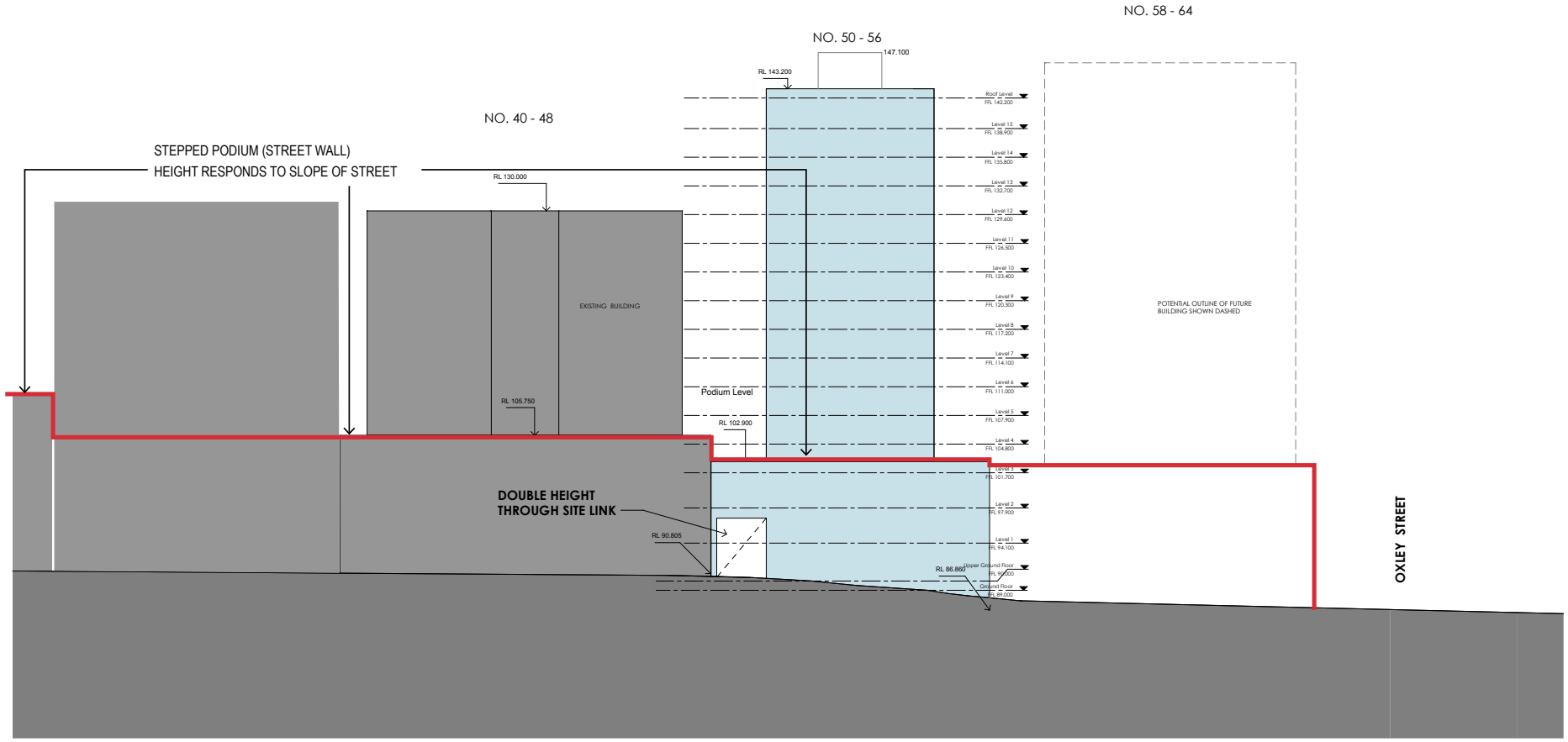


SOUTHERN VIEW FROM ALBANY LN

STREET VIEW FROM ATCHISON STREET TOWARDS MITCHELL ST

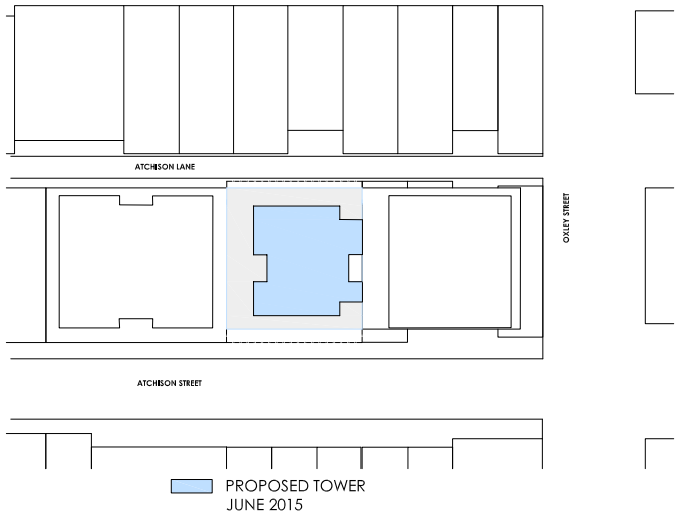
5.0 MASSING STUDIES

ATCHISON STREET ELEVATION

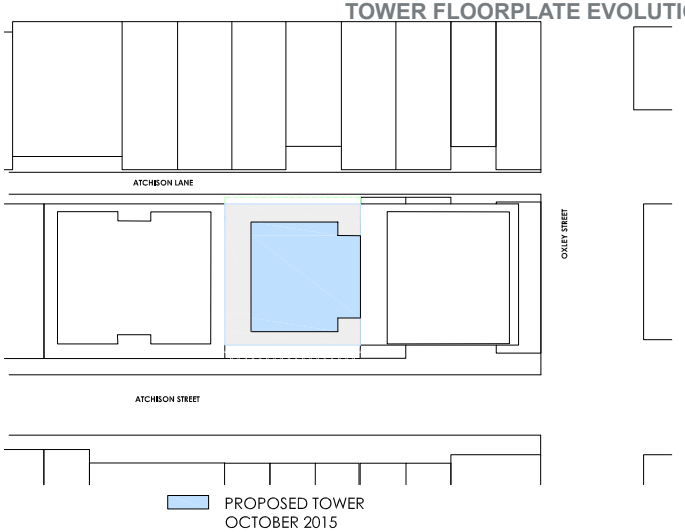


5.0 MASSING STUDIES

TOWER FLOORPLATE EVOLUTION DIAGRAM



PROPOSED TOWER
JUNE 2015



PROPOSED TOWER
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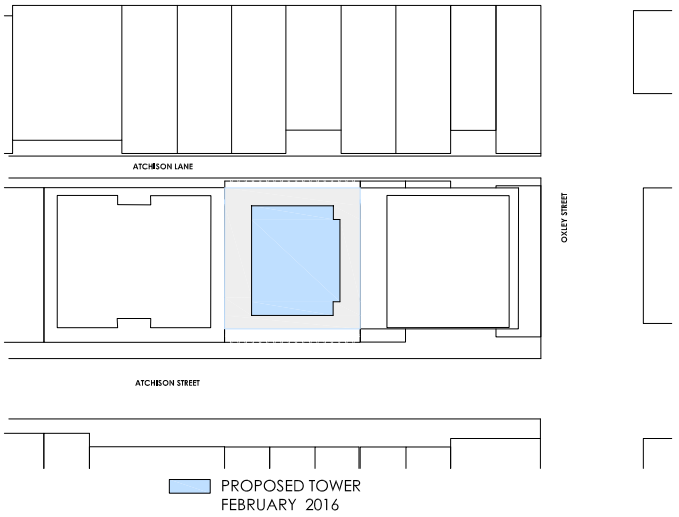
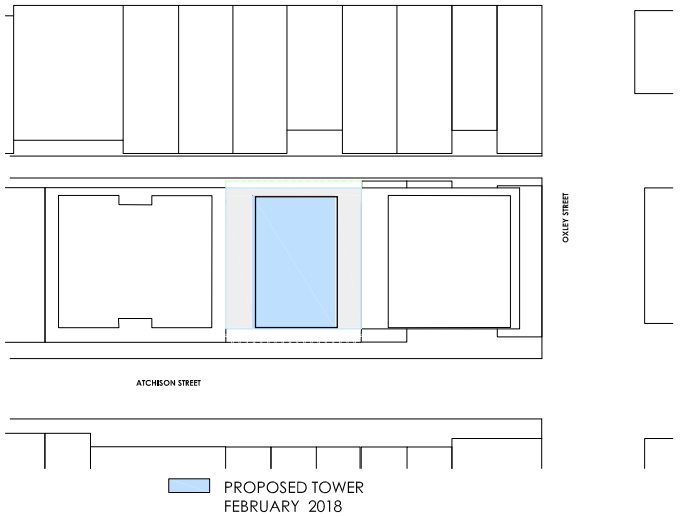


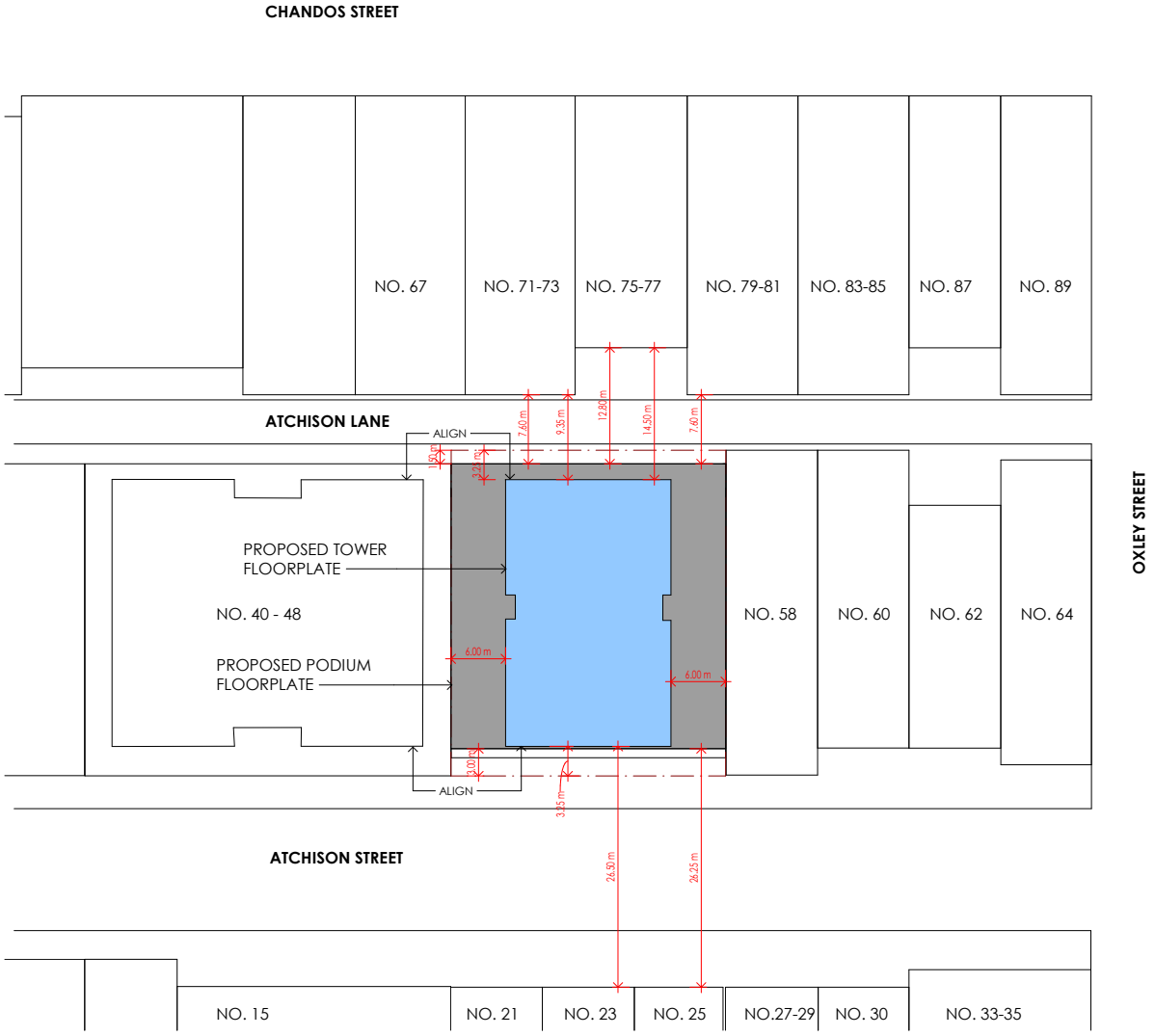
PROPOSED TOWER
FEBRUARY 2016



PROPOSED TOWER
FEBRUARY 2018

5.0 MASSING STUDIES

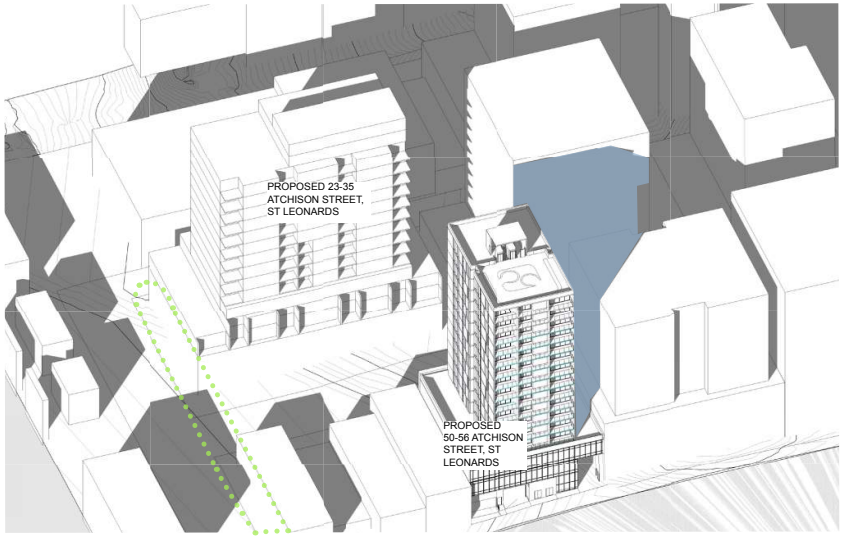
SETBACK DIAGRAM



6.0 SHADOW STUDIES

WINTER SOLSTICE

The shadow diagrams on the following pages illustrate the shadow impact of the proposed building at 50-56 Atchison St during the winter solstice on the surrounding streetscape & buildings.



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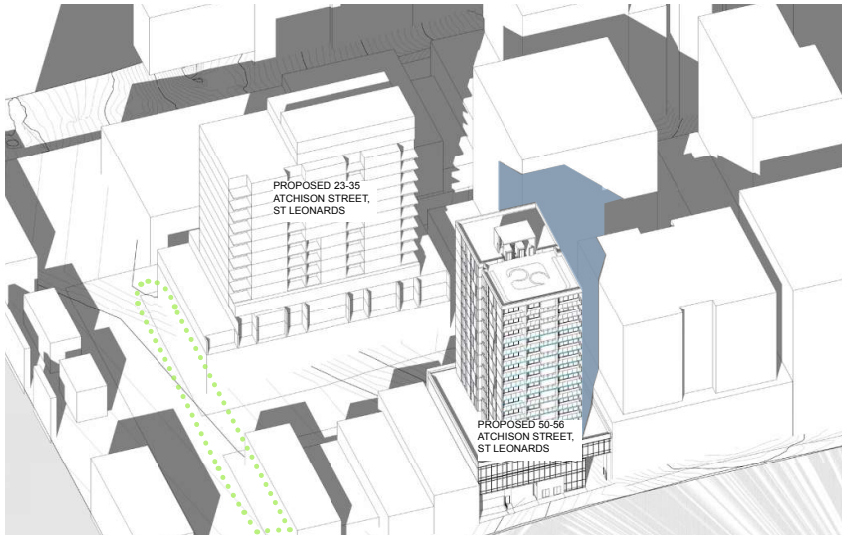

10:00 AM

Existing Shadows

50-56 Atchison Street additional Shadows

Future Linear Park

N

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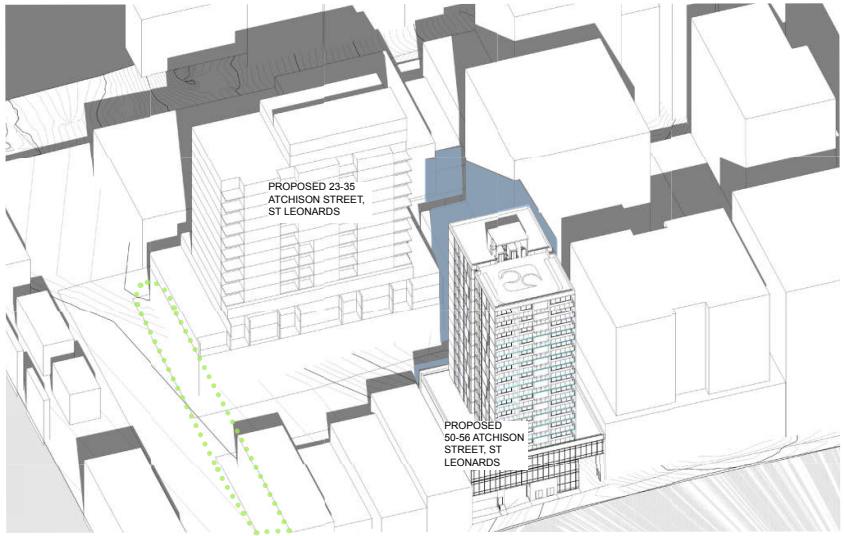
6.0 SHADOW STUDIES

WINTER SOLSTICE



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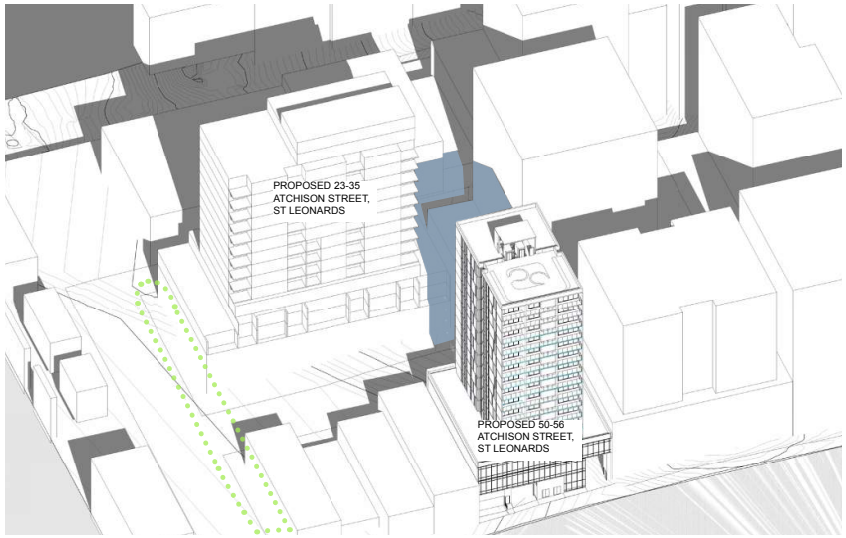


11:30 PM

N

Existing Shadows

50-56 Atchison Street additional Shadows

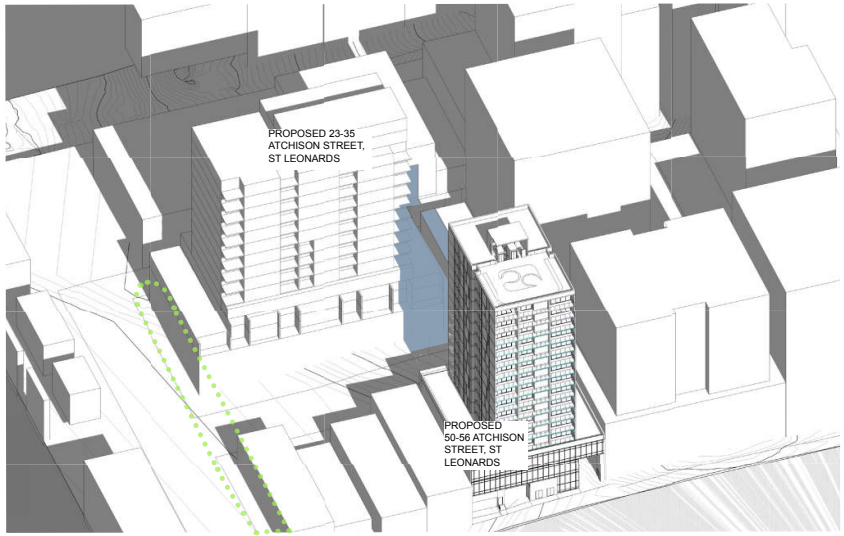
Future Linear Park

KANNFINCH

6.0 SHADOW STUDIES

WINTER SOLSTICE

There is no shadow impact on the proposed development at 23-35 Atchison St until midday during the winter solstice. Shadow impacts during the equinox and summer solstice would be negligible.



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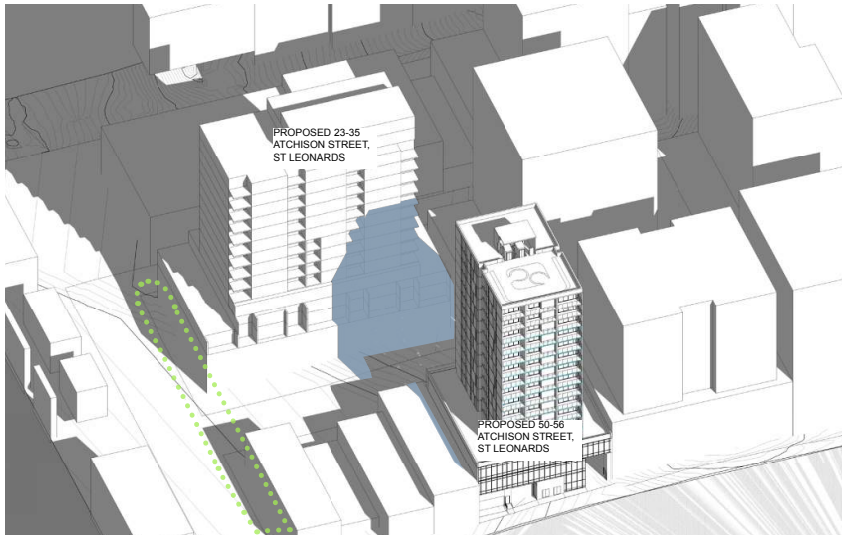


1:00 PM

N

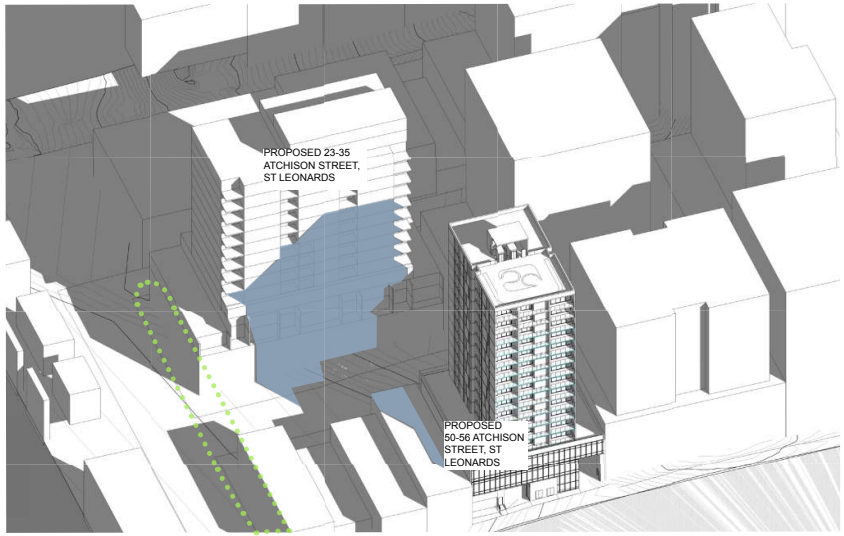
Existing Shadows
50-56 Atchison Street additional Shadows
Future Linear Park

KANNFINCH

6.0 SHADOW STUDIES

WINTER SOLSTICE

There is no shadow impact in the proposed linear park along Oxley Street until 3:00pm during the winter solstice. Shadow impacts during the equinox and summer solstice would be negligible.



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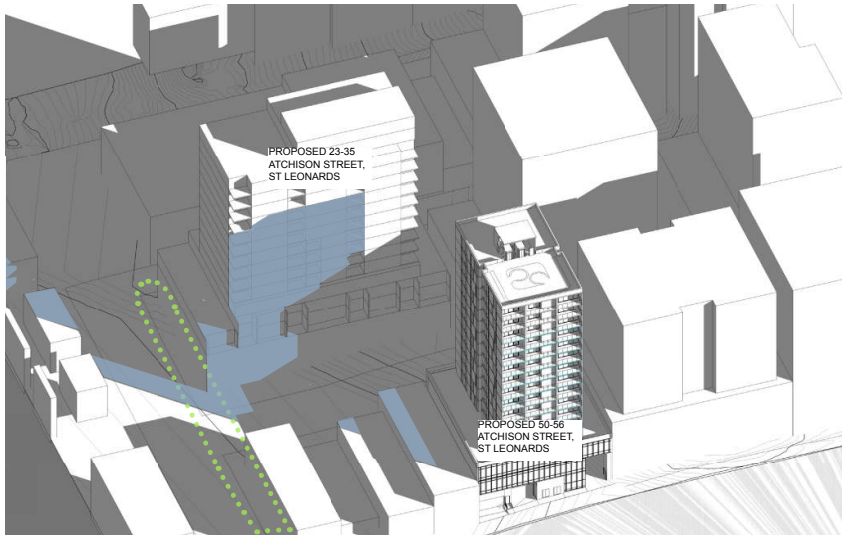

3:00 PM

Existing Shadows

50-56 Atchison Street additional Shadows

Future Linear Park

N

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7.0 STREET ACTIVATION

PRINCIPLES FOR STREET ACTIVATION

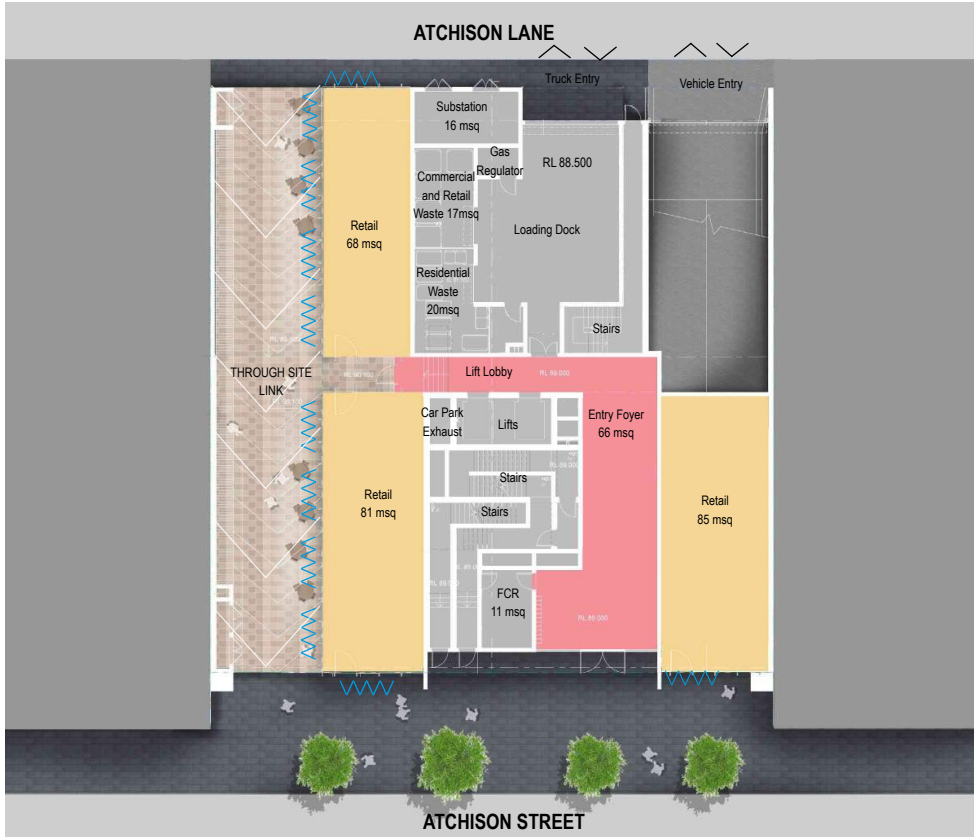
The principles to activate the street edges of the subject site include:

- Maximising the extent and continuity of the activated street edge with retail and commercial uses in addition to residential.
- Maximising visibility to commercial and residential lobbies from the public domain.
- Providing direct access from the surrounding public domain to retail/commercial space and building lobbies.
- Activating the 2 storey high by 6m wide through site link with landscaping, seating, lighting and public art installations to encourage chance meetings and socialisation.
- Minimising the impact of the vehicle entries by using high-quality materials and finishes and limiting their width to a maximum of 6m and avoiding the 'black hole' effect with the provision of an artistically design grille or gate.
- Minimising any non-active edges to the public domain.
- Providing high-quality architectural detailing for any exposed part of the façade.

Design Outcome

Based on the above principles, the proposal has employed a number of measures for street activation as follows:

- Approximately 75% of the street edge is activated by retail spaces or commercial/residential lobbies.
- A total of five(5) pedestrian entry points are created to retail shops or commercial/residential lobbies from all street edges.
- All retail frontages and lobbies to Atchison Street have level access.
- A north-south pedestrian link is provided through retail shops on the Ground Floor.
- The vehicle entry from Atchison Lane is limited to 6m wide at the north eastern corner.



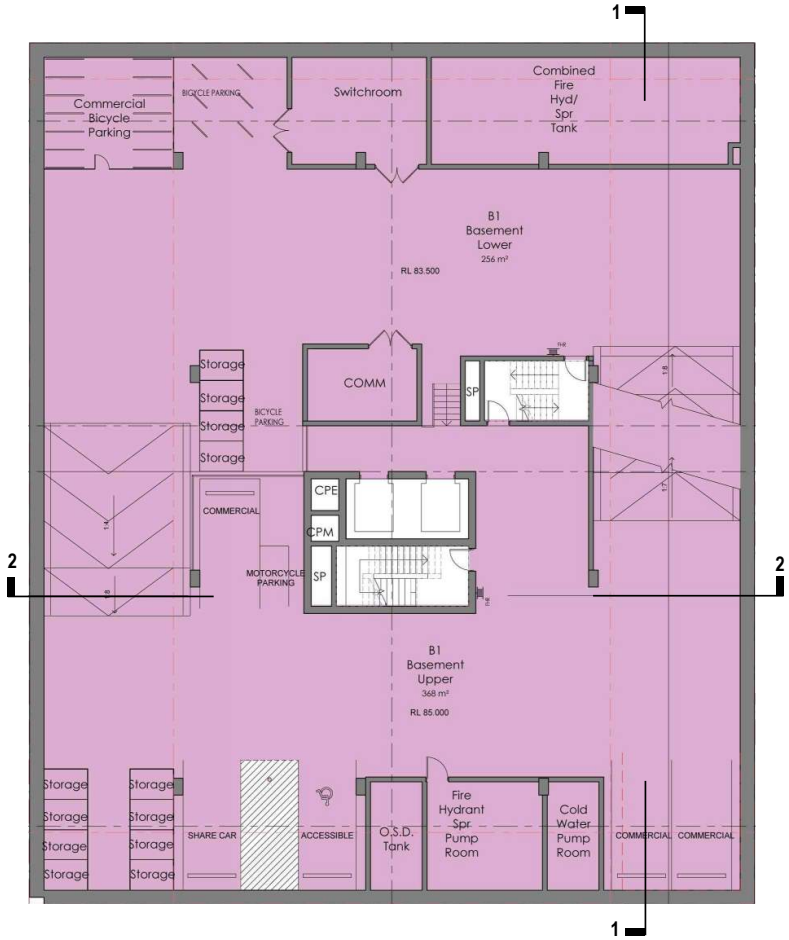
LEGEND

- Vehicle Entry
- Pedestrian Walkway
- Retail
- Services
- Residential Entry
- Activated Frontage

8.0 INDICATIVE PLANS

TYPICAL BASEMENT FLOOR

ATCHISON LANE



ATCHISON STREET

N

Scale 1: 200 @ A3

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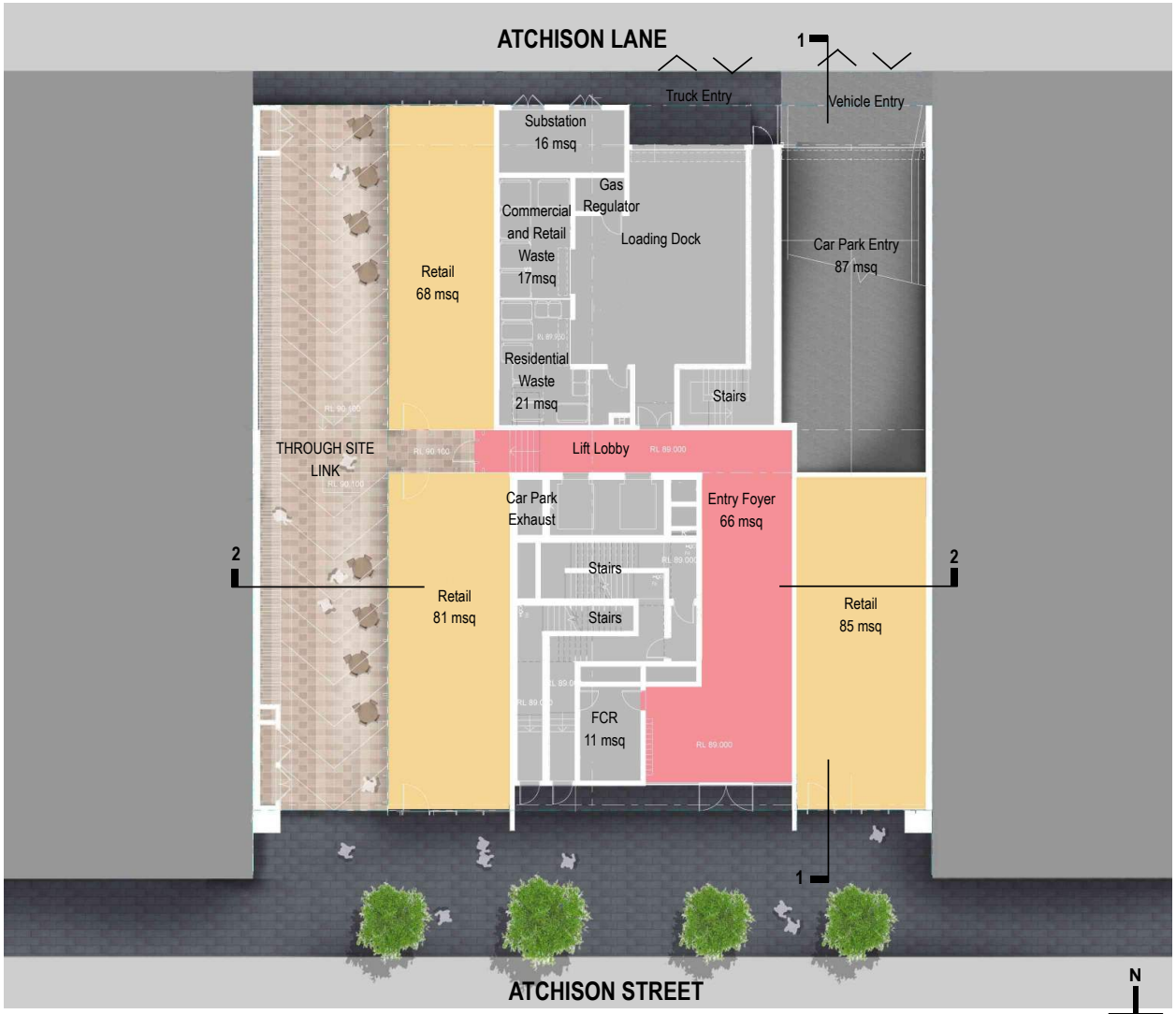
KANNFINCH

8.0 INDICATIVE PLANS

GROUND FLOOR



Scale 1: 200 @ A3

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8.0 INDICATIVE PLANS

INDICATIVE FLOOR PLANS - LEVEL 1 (COMMERCIAL)

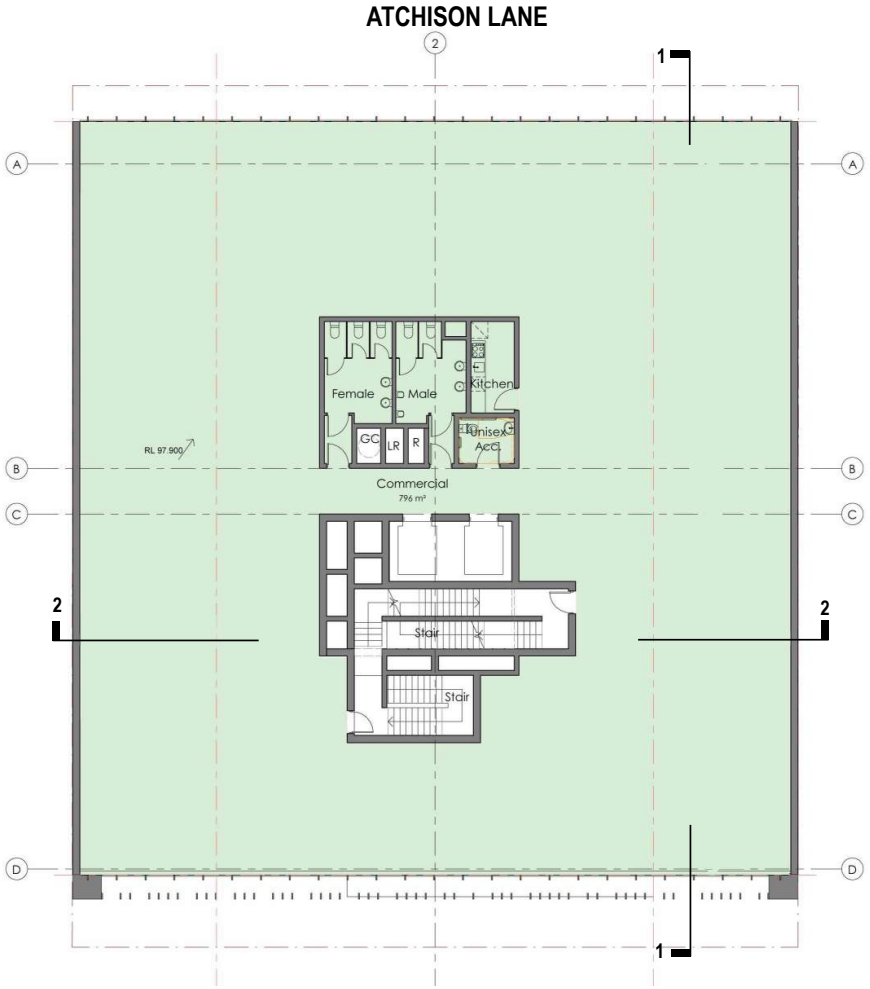
N

Scale 1: 200 @ A3

0 1000 2000 5000 10000

8.0 INDICATIVE PLANS

INDICATIVE FLOOR PLANS - LEVEL 2 (COMMERCIAL)



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Scale 1: 200 @ A3

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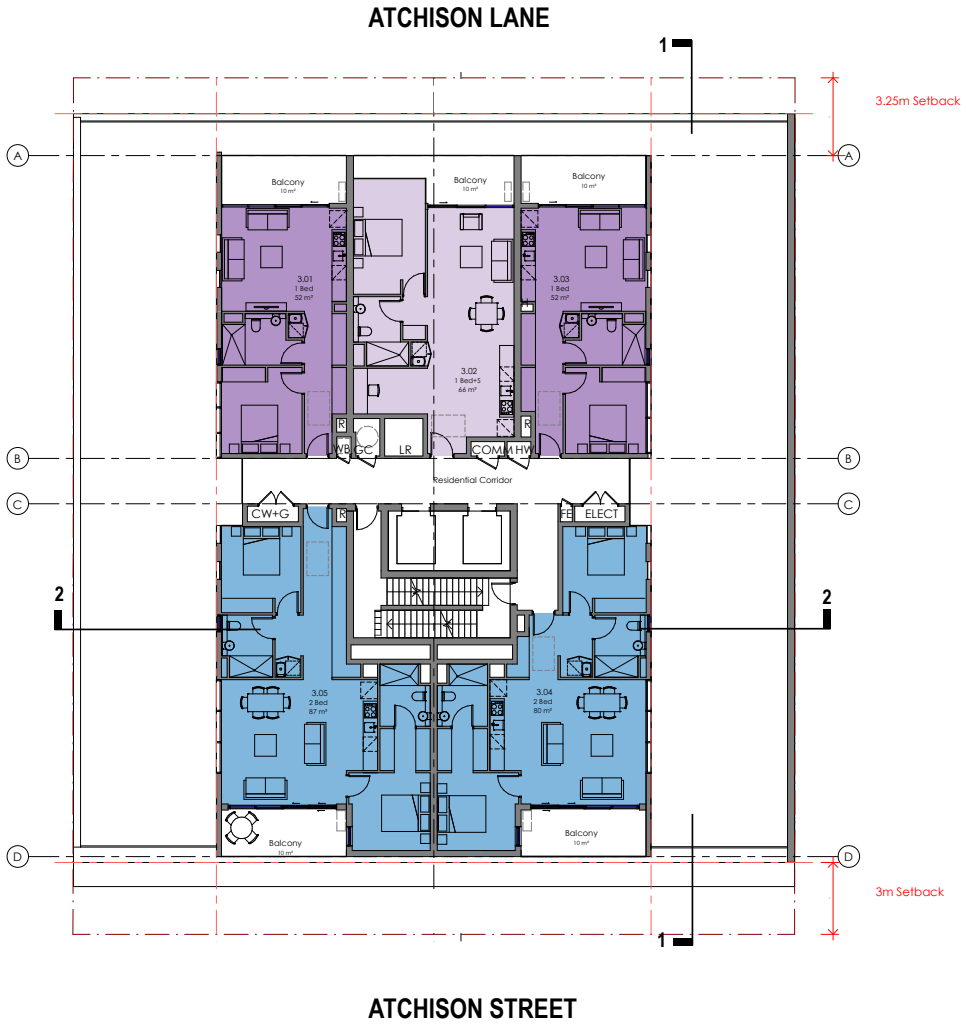
8.0 INDICATIVE PLANS

TYPICAL RESIDENTIAL FLOORS (LEVEL 3-15)



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Scale 1: 200 @ A3

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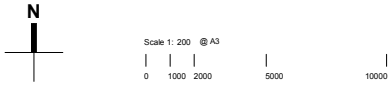
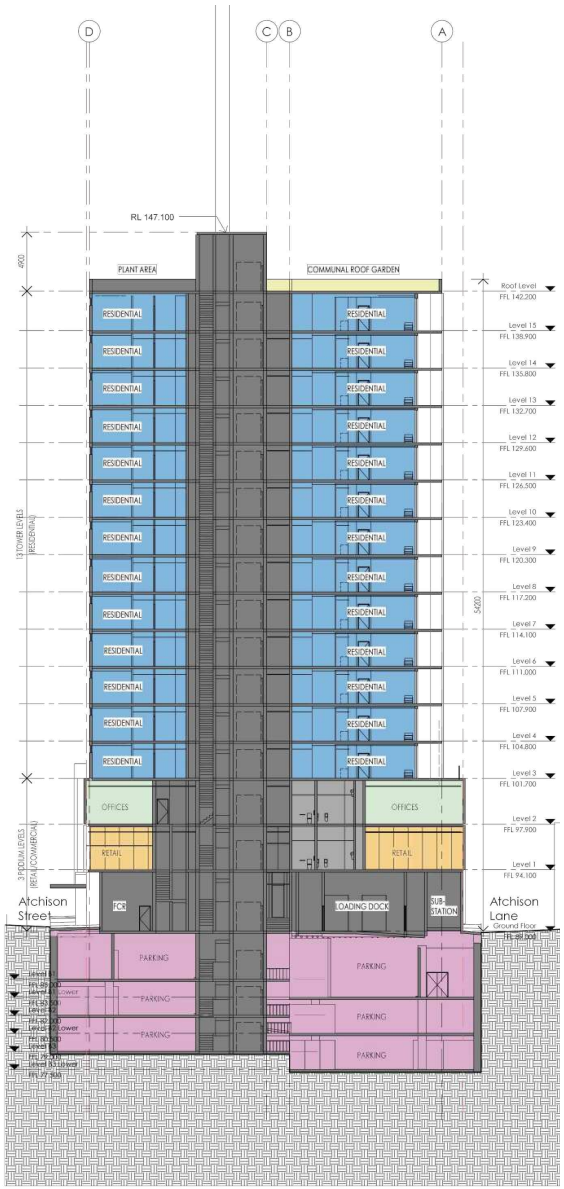
8.0 INDICATIVE PLANS

ROOF FLOOR



8.0 INDICATIVE PLANS

SECTIONS

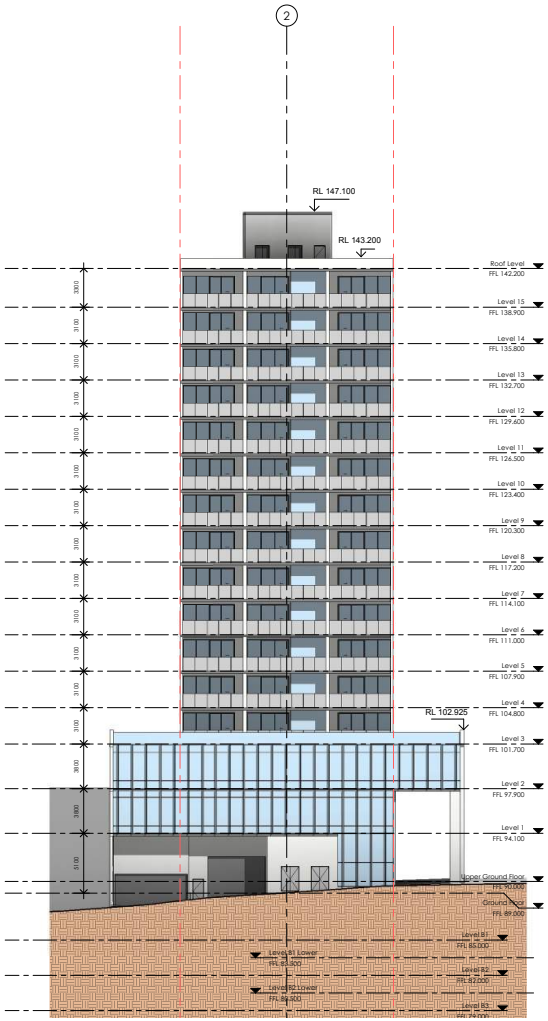


SECTION 1

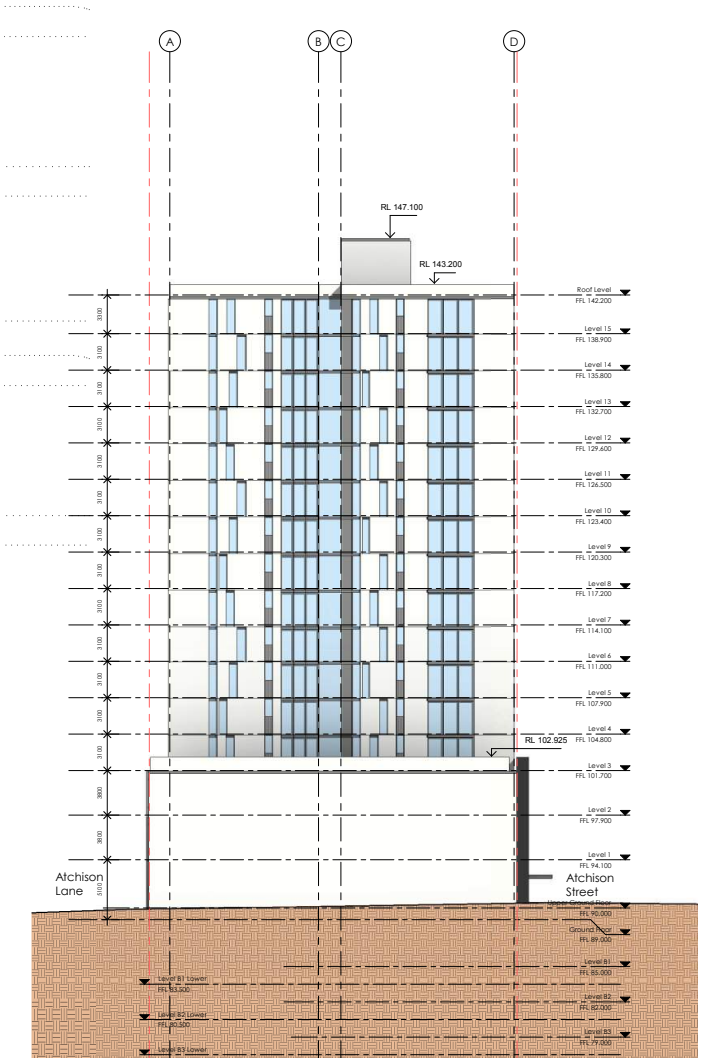
SECTION 2

8.0 INDICATIVE PLANS

ELEVATIONS



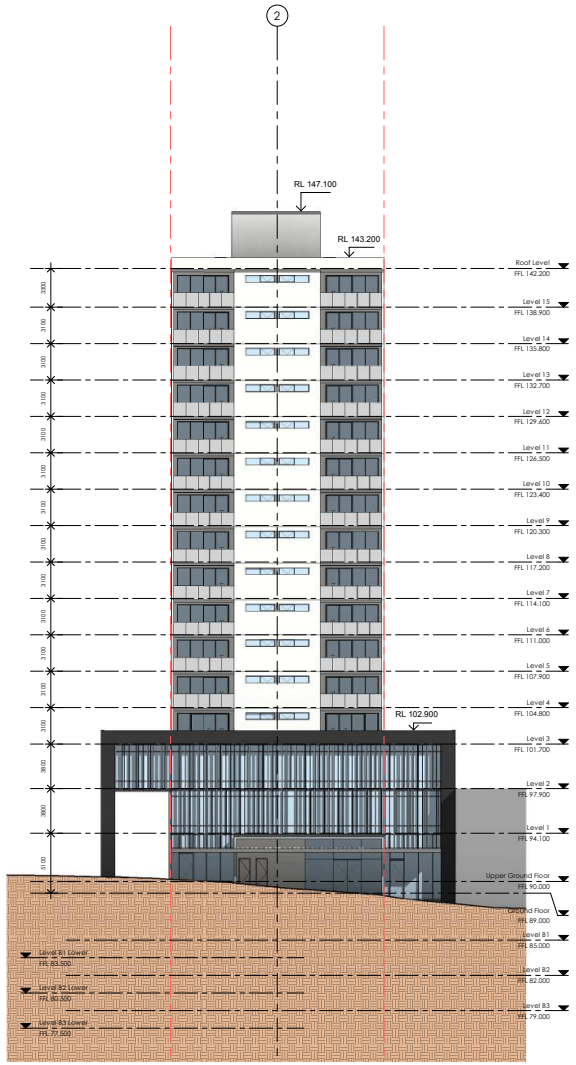
NORTH ELEVATION



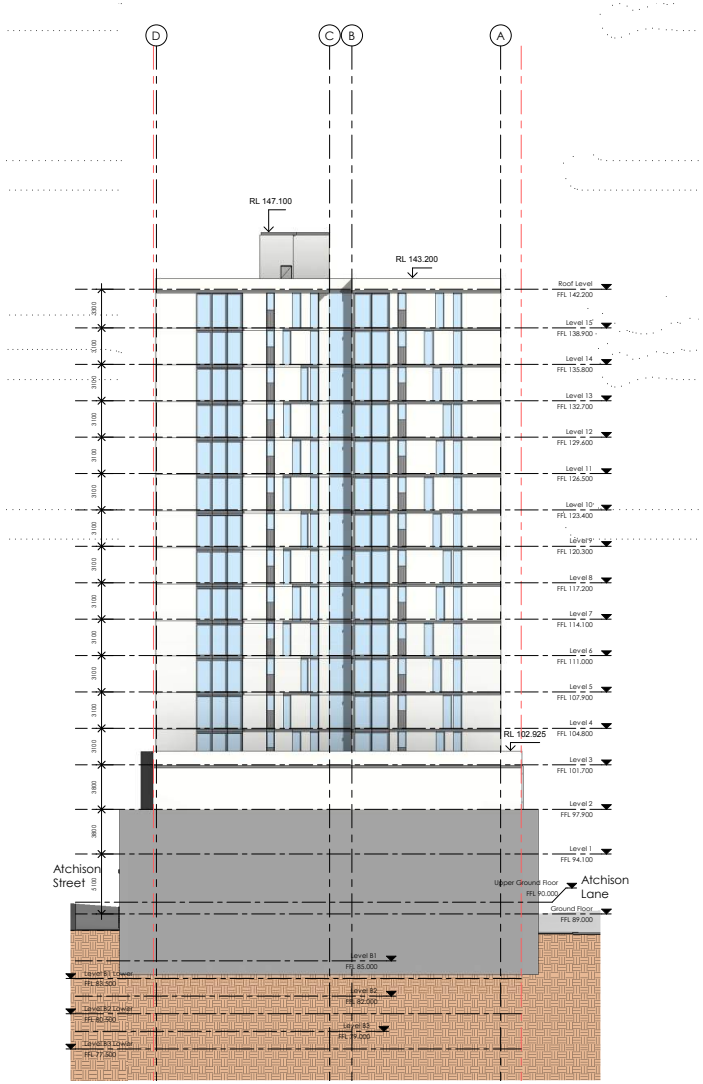
WEST ELEVATION

8.0 INDICATIVE PLANS

ELEVATIONS



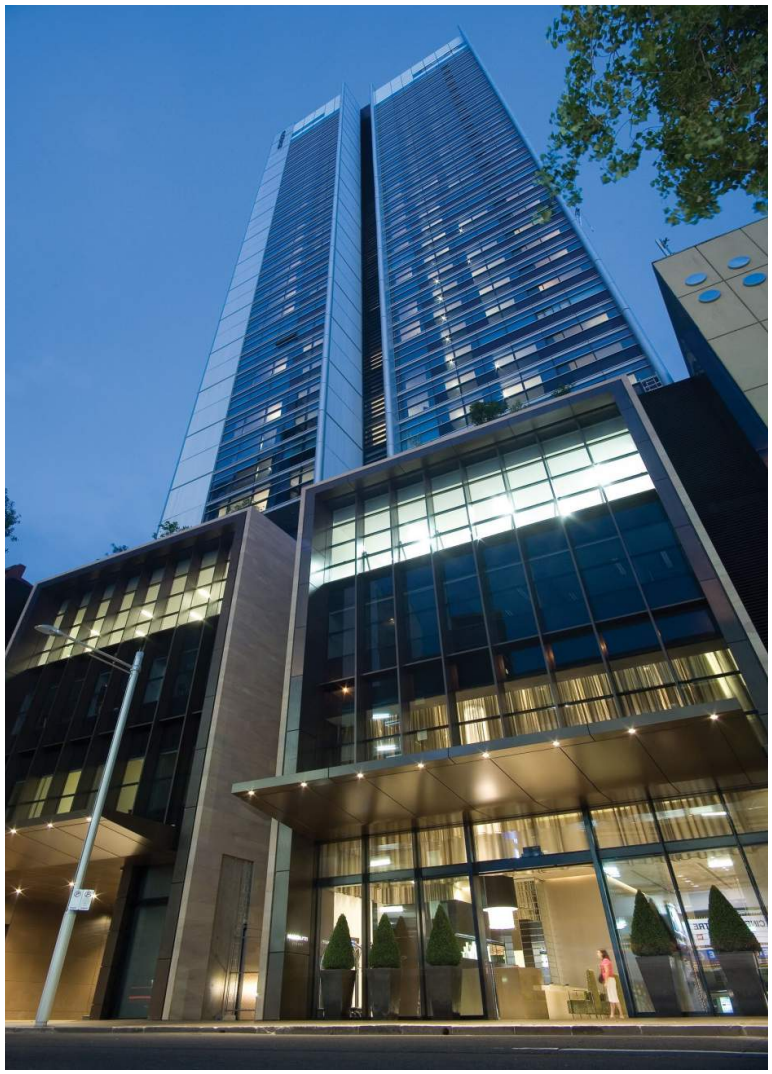
SOUTH ELEVATION

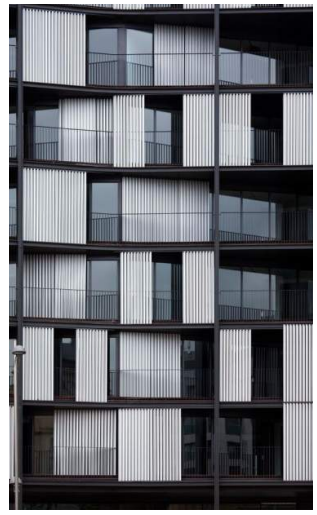


EAST ELEVATION

9.0 PRECEDENT IMAGES

FACADE PRECEDENT IMAGES





9.0 PRECEDENT IMAGES

LANDSCAPE









10.0 DEVELOPMENT SUMMARY

The proposed redevelopment of 50 - 56 Atchison Street, includes three levels of basement parking, three storey podium comprised of ground, retail, and office space. Above the podium there are thirteen residential floors, and roof garden level providing shared landscape and recreation facilities for the residents.

Typical Residential Levels NSA per level (3-16)

Typical 1B	52m2 +10m2 Balcony
Typical 1B	52m2 +10m2 Balcony
Typical 1B + S (Silver)	66m2 +10m2 Balcony
Typical 2B	87m2 +10m2 Balcony
Typical 2B	80m2 +10m2 Balcony

Total number of apartments (5x13)		65
Total apartments NSA	13 x 344m2	4472m2
Total Retail NSA and Commercial NSA		1615m2

Area Summary

Site	1080m2
Total Non Residential GFA	1844m2
Non Residential FSR	**1.7 :1**
Total GFA	6887m2
Proposed Total FSR	**6.4:1**

Area Schedule (GFA) Tower	
Level 15	388 m²
Level 14	388 m²
Level 13	388 m²
Level 12	388 m²
Level 11	388 m²
Level 10	388 m²
Level 9	388 m²
Level 8	388 m²
Level 7	388 m²
Level 6	388 m²
Level 5	388 m²
Level 4	388 m²
Level 3	388 m²
	5043 m²

Area Schedule (GFA) Podium	
Level 2	843 m²
Level 1	672 m²
Upper Ground Floor	329 m²
	1844 m²

ARCHITECTURAL DRAWINGS

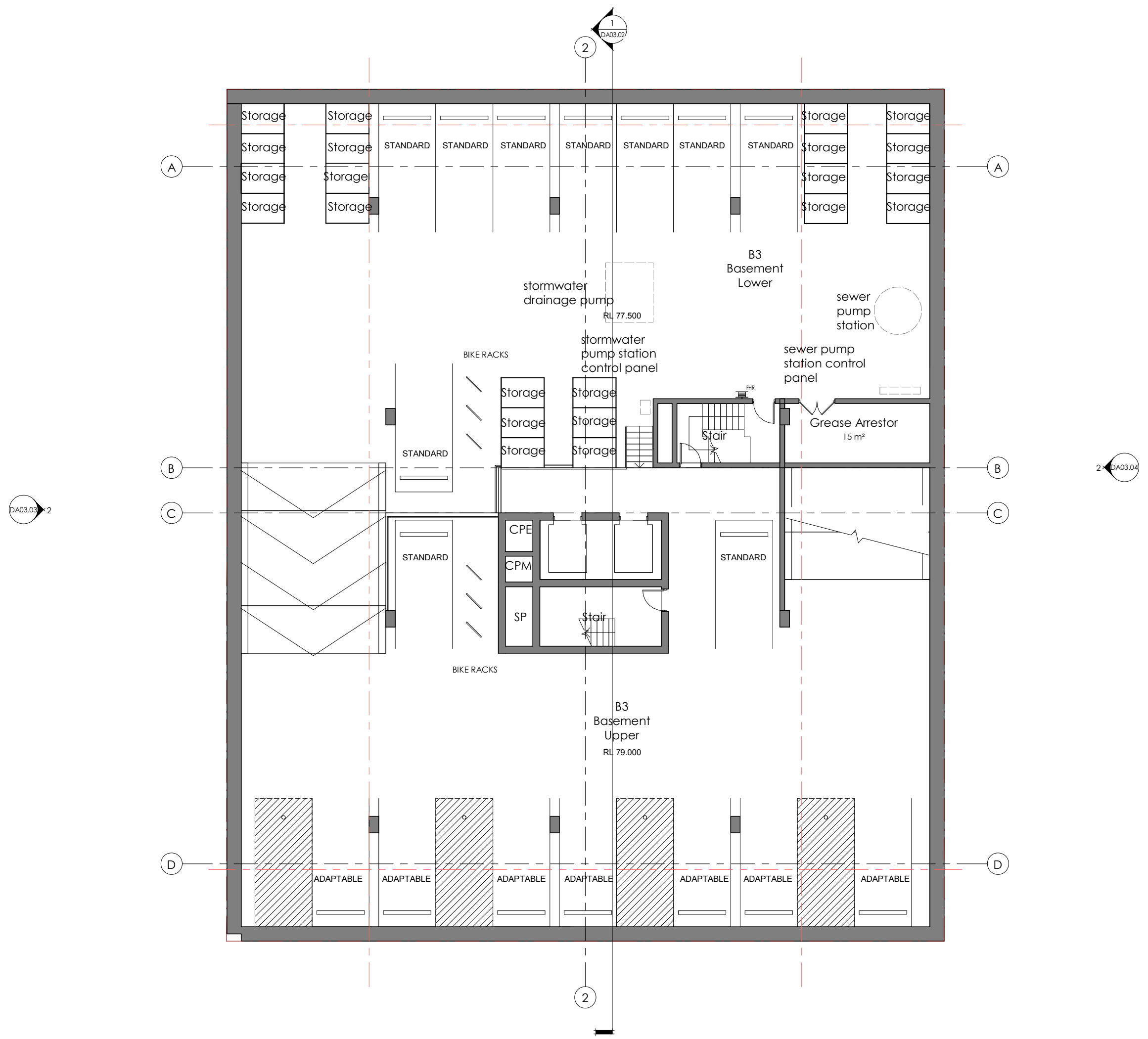
DA00.01	COVER SHEET	E
DA02.02	BASEMENT 3 FLOOR PLAN	K
DA02.03	BASEMENT 2 FLOOR PLAN	K
DA02.04	BASEMENT 1 FLOOR PLAN	J
DA02.05	GROUND FLOOR PLAN	N
DA02.07	LEVEL 1	L
DA02.08	LEVEL 2	L
DA02.09	LEVELS 3-15	K
DA02.10	ROOF	I
DA02.91	GFA AREA PLANS	H
DA03.01	BUILDING SECTION	I
DA03.02	BUILDING SECTION	H
DA03.03	ELEVATION NORTH & WEST	H
DA03.04	ELEVATION SOUTH & EAST	H

EPIC LEISURE PTY LTD

50 - 56 ATCHISON ST. ST LEONARDS

Issue for Information 25.01.2019

FOR INFORMATION ONLY



PARKING SCHEDULE TOTALS	
Parking Space Type	Count
ACCESSIBLE	1
ADAPTABLE	7
CAR WASH	1
COMMERCIAL	6
SHARE CAR	1
STANDARD	16
TOTAL	32

FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
K	Issue for Information	SJ	25.01.2019
J	Modifications in response to council comments	SJ	09.10.2018
I	Issue for Information	SJ	13.03.2018

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Client
EPIC LEISURE PTY LTD

Scale 1:100
0 1m 2m 5m 10m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

KANNFINCH
Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
BASEMENT 3 FLOOR PLAN

Drawing No.
DA02.02
Revision
K

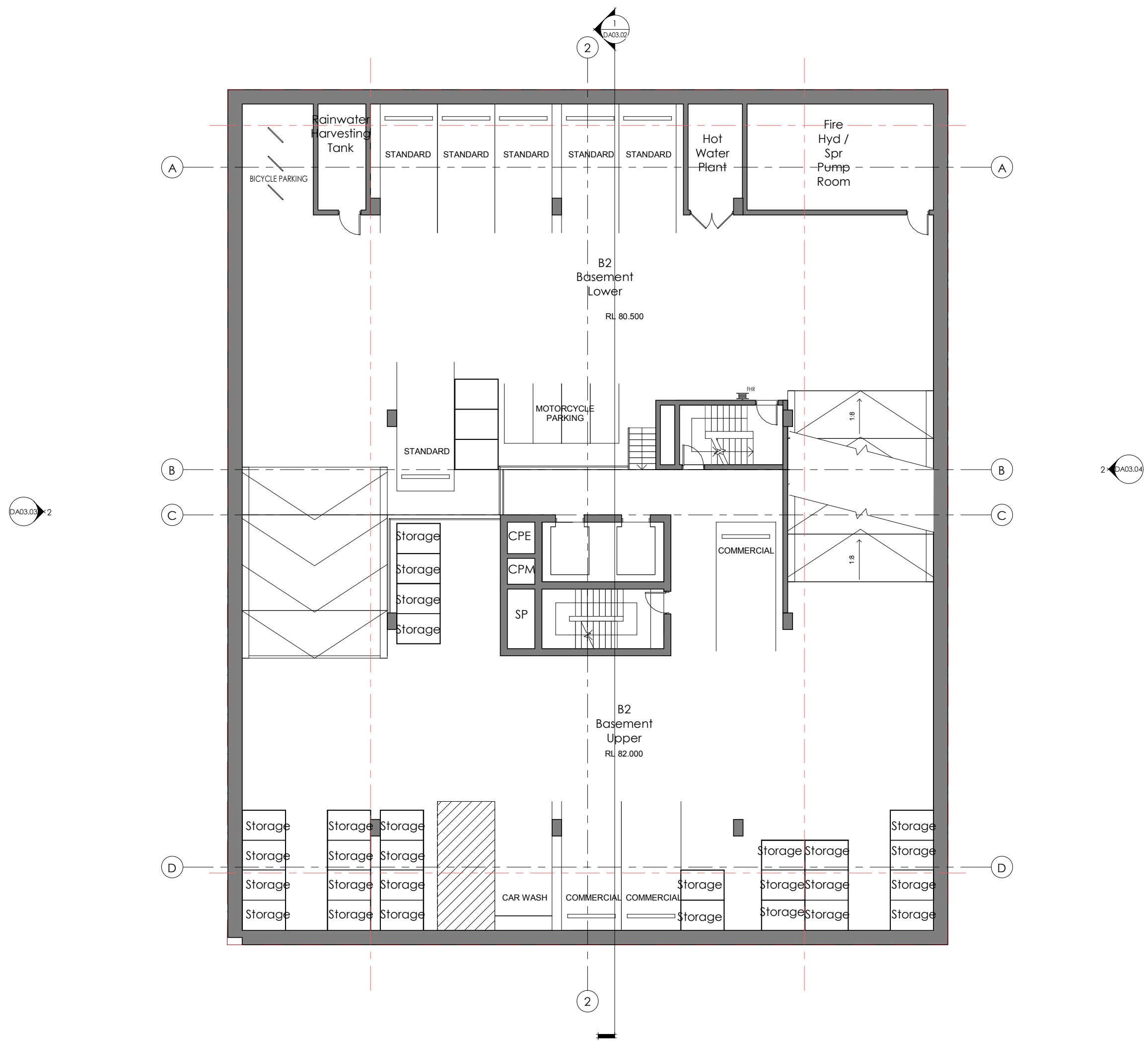
Scales
1 : 100 @ A1

Drawn
Author

Checked
Checker

Project No.
6309

25/01/2019 5:15:52 PM : Plot Date



PARKING SCHEDULE TOTALS	
Parking Space Type	Count
ACCESSIBLE	1
ADAPTABLE	7
CAR WASH	1
COMMERCIAL	6
SHARE CAR	1
STANDARD	16
TOTAL	32

FOR INFORMATION ONLY

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Client
EPIC LEISURE PTY LTD

NORTH

Scale 1:100
0 1m 2m 5m 10m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

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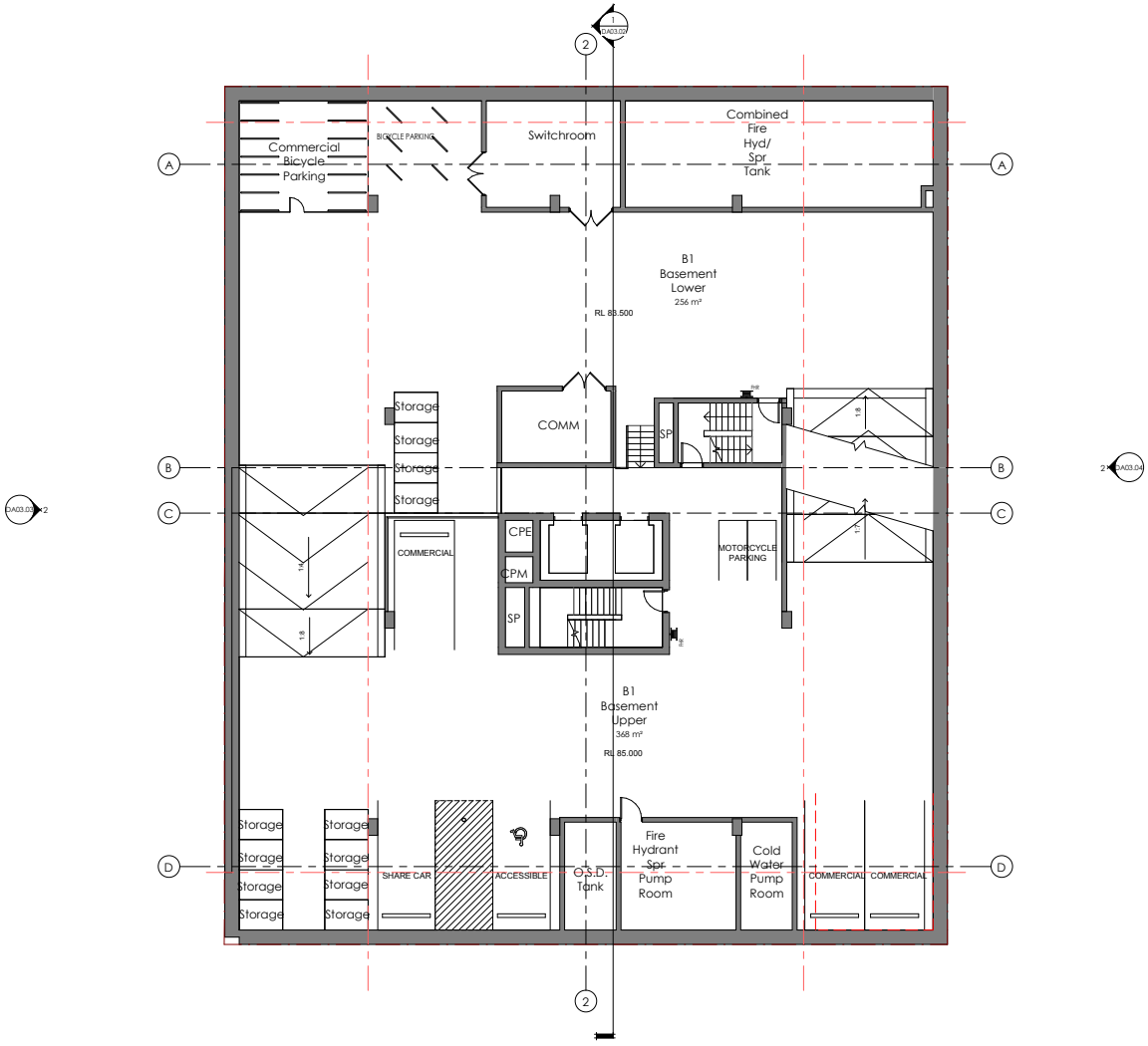
Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
BASEMENT 2 FLOOR PLAN

Drawing No.
DA02.03
Revision
K

Scales 1 : 100 @ A1
Drawn Author
Checked Checker
Project No. 6309
25/01/2019 5:55:54 PM: Plot Date



PARKING SCHEDULE TOTALS	
Parking Space Type	Count
ACCESSIBLE	1
ADAPTABLE	7
CAR WASH	1
COMMERCIAL	6
SHARE CAR	1
STANDARD	16
TOTAL	32

FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
J	Issue for Information	SJ	25.01.2019
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H	Issue for Information	SJ	13.03.2018

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Client
EPIC LEISURE PTY LTD

Scale 1:100
0 1m 2m 5m 10m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

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Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
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Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
BASEMENT 1 FLOOR PLAN

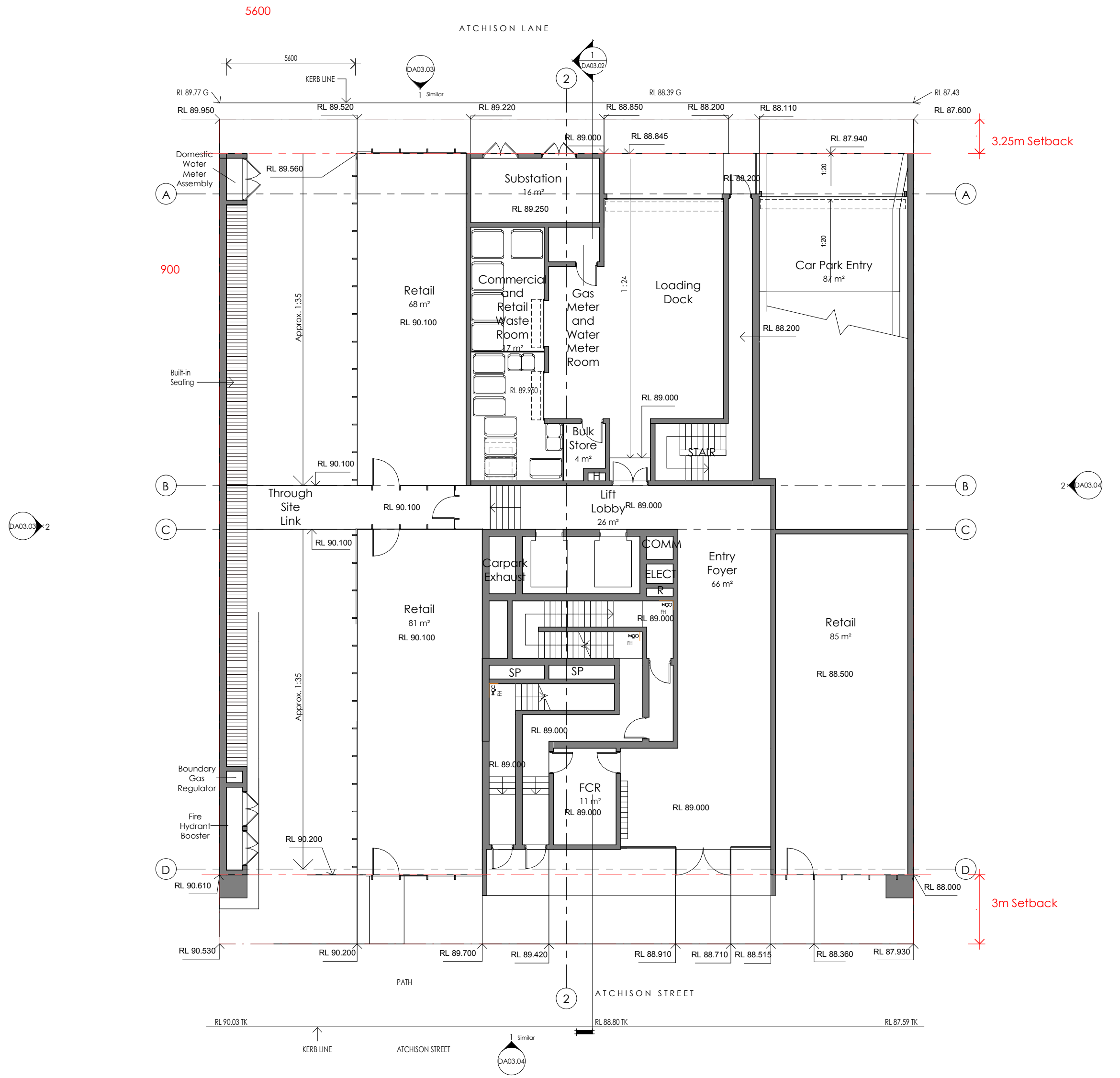
Drawing No.
DA02.04
Revision
J

Scales
1 : 100 @ A1

Drawn
Author

Checked

Plotted No.



FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
N	Issue for Information	SJ	25.01.2019
M	Modifications in response to council comments	SJ	09.10.2018
L	Issue for Information	SJ	13.03.2018

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Client
EPIC LEISURE PTY LTD

Scale 1:100
0 1m 2m 5m 10m

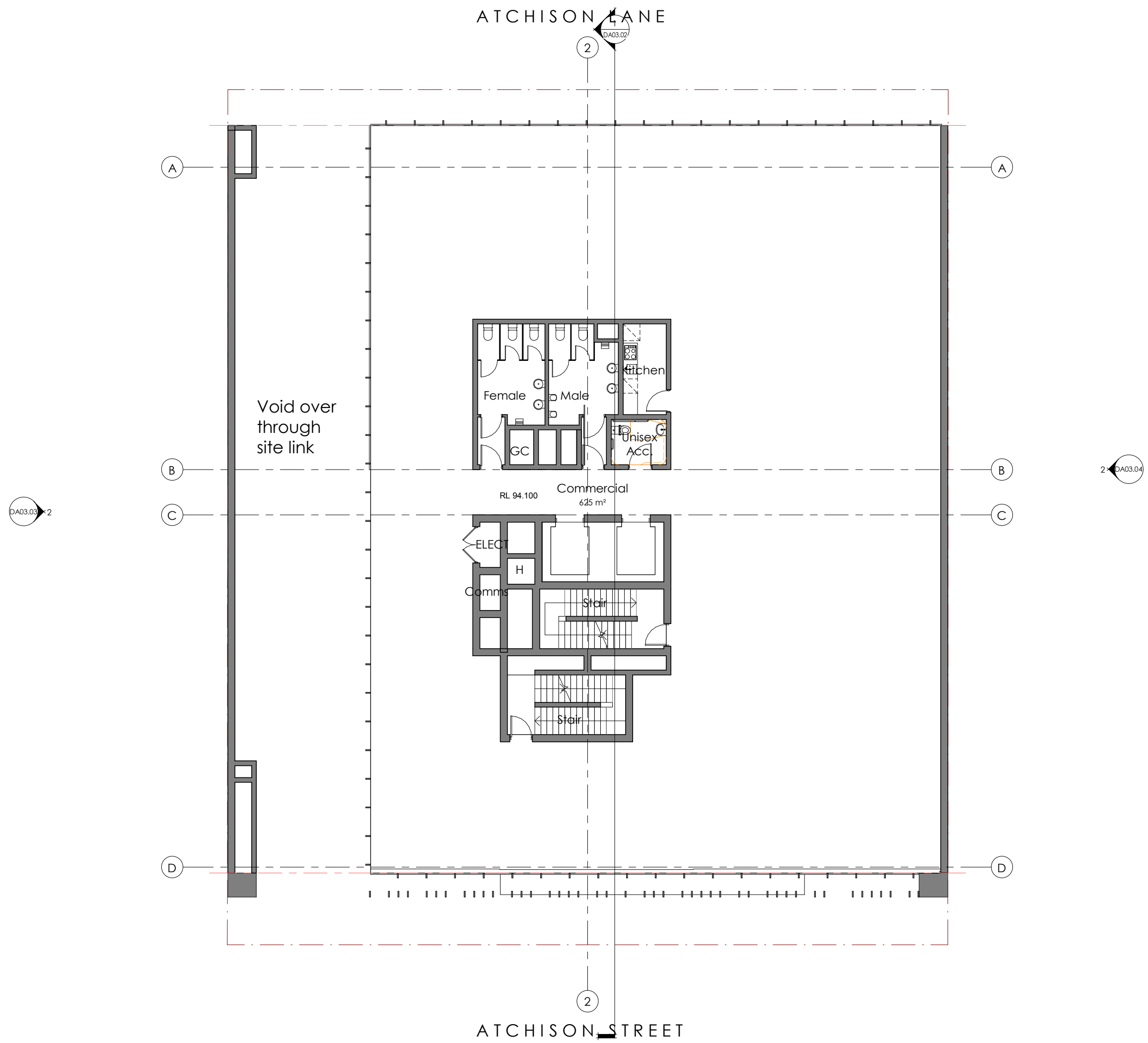
Project
50 - 56 ATCHISON ST.
ST LEONARDS

KANNFINCH
Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
GROUND FLOOR PLAN

Drawing No.
DA02.05
Revision
N

Scales 1 : 100 @ A1
Drawn Author
Checked Checker



FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
L	Issue for Information	SJ	25.01.2019
K	Modifications in response to council comments	SJ	09.10.2018
J	Issue for Information	SJ	13.03.2018

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Client
EPIC LEISURE PTY LTD

Scale 1:100
0 1m 2m 5m 10m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

KANNFINCH
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ACN 139 614 798 Tel +61 2 9299 4111
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Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

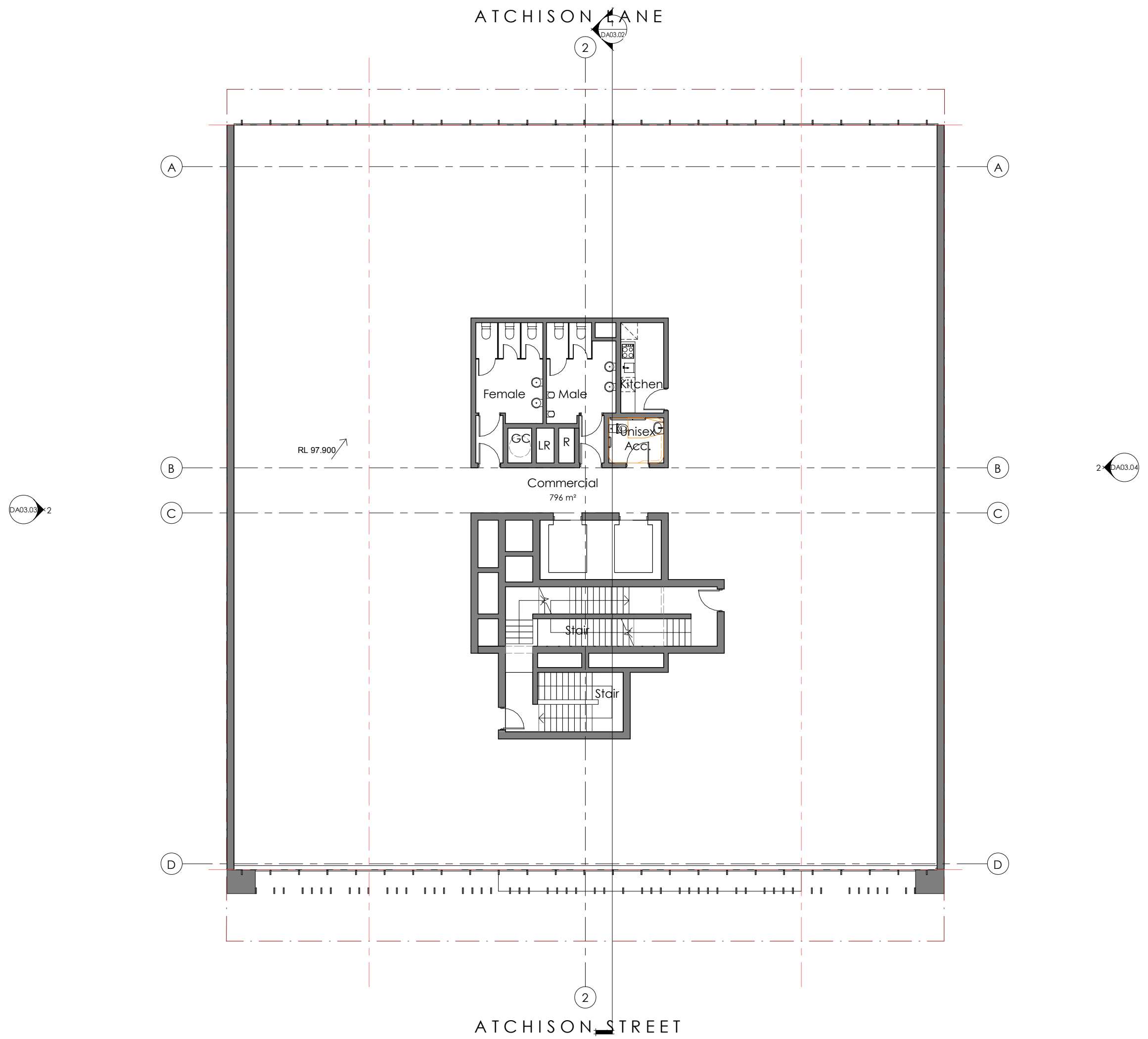
Drawing
LEVEL 1

Scales
1 : 100 @ A1

Drawn Author
Checked Checker
Project No. 6307

Drawing No.
DA02.07
Revision
L

25/01/2019 Plot Date



FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
L	Issue for Information	SJ	25.01.2019
K	Modifications in response to council comments	SJ	09.10.2018
J	Issue for Information	SJ	13.03.2018

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Client: EPIC LEISURE PTY LTD

Scale 1:100 — 0, 1m, 2m, 5m, 10m

Project: 50 - 56 ATCHISON ST. ST LEONARDS

KANNFINCH
Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing: LEVEL 2

Scales: 1 : 100 @ A1

Drawn: Author

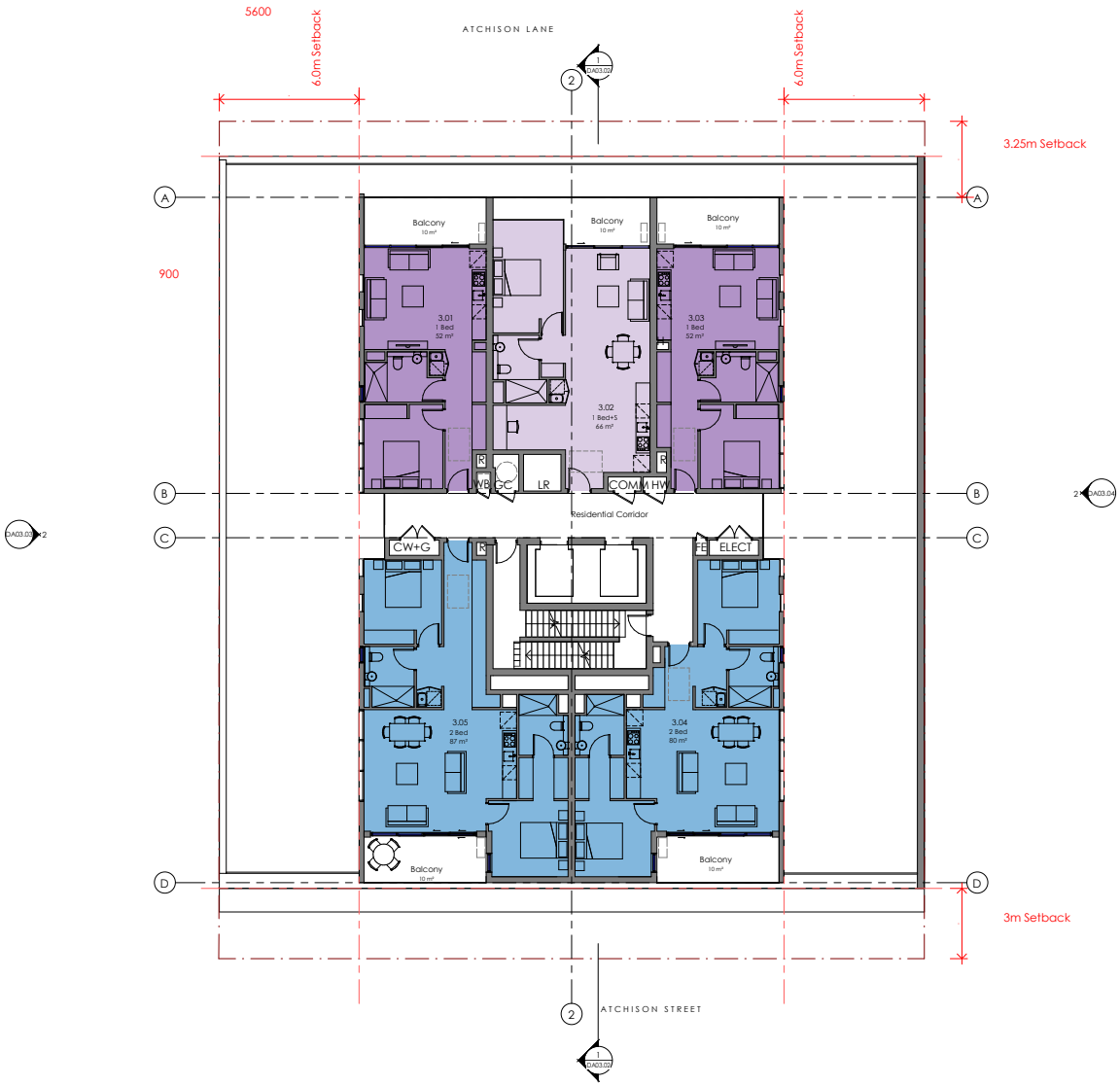
Checked: Checker

Drawing No.: DA02.08

Revision: L

Project No: 6308

25/01/2019 Plot Date



FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
K	Issue for Information	SJ	25.01.2019
J	Modifications in response to council comments	SJ	09.10.2018
I	Issue for Information	SJ	13.03.2018

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Client
EPIC LEISURE PTY LTD

Scale 1:100
0 1m 2m 5m 10m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

KANNFINCH
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ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
LEVELS 3-15

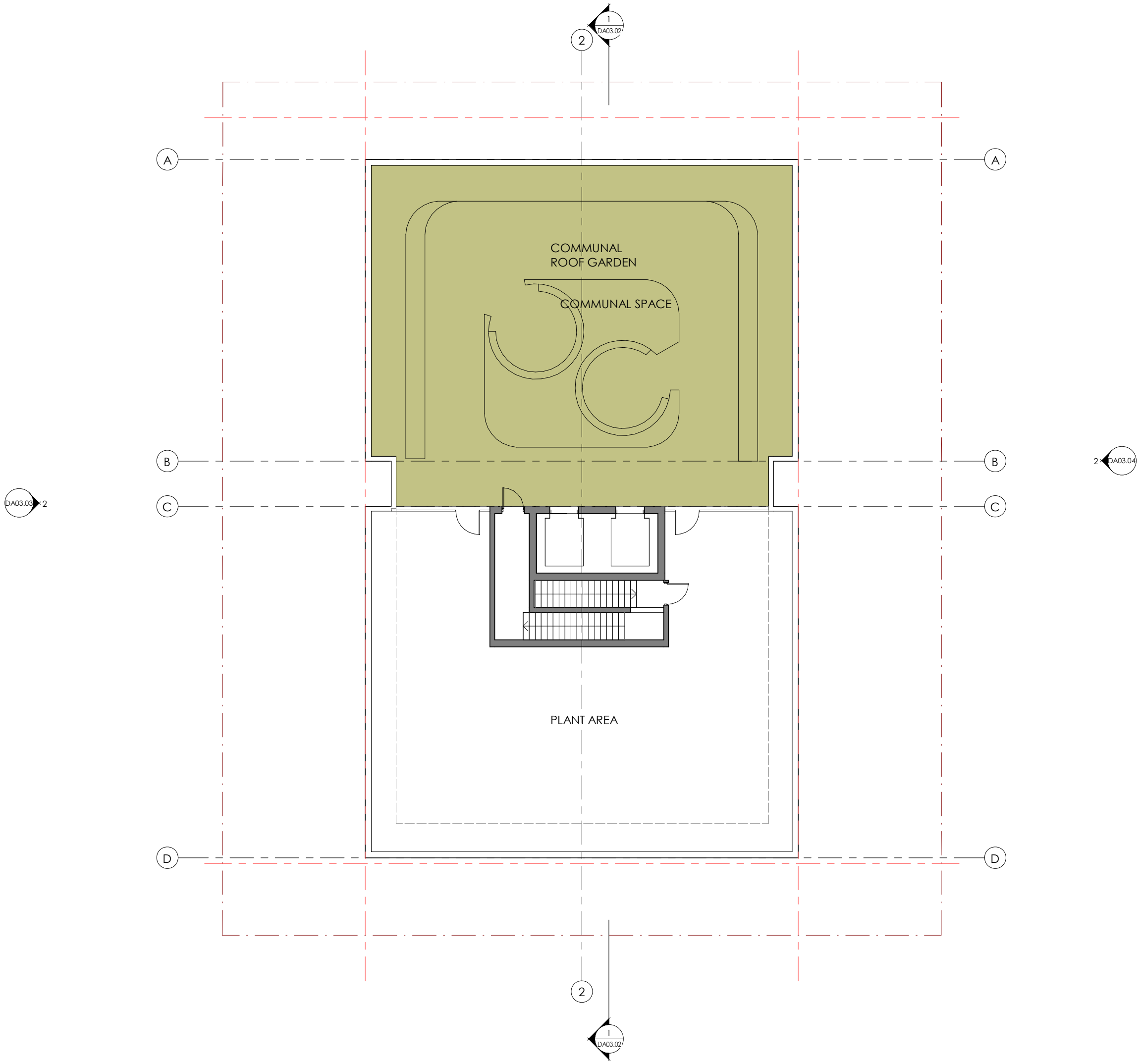
Drawing No.
DA02.09
Revision
K

Scales
1 : 100 @ A1

Drawn
Author

Checked

Project No.



FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
I	Issue for Information	SJ	25.01.2019
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G	Issue for Information	SJ	13.03.2018

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Client
EPIC LEISURE PTY LTD

NORTH

Scale 1:100
0 1m 2m 5m 10m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

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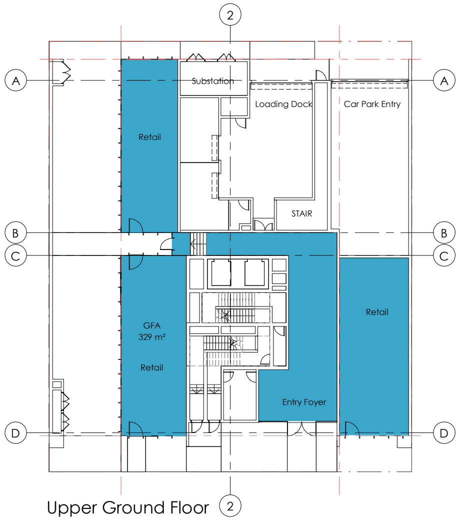
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
ROOF

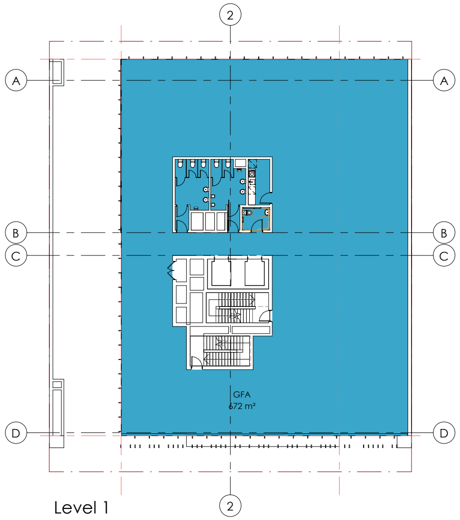
Drawing No.
DA02.10
Revision
I

Scales 1 : 100 @ A1
Drawn Author
Checked Checker
Project No. 6309

25/01/2019 5:45:59 PM: Plot Date

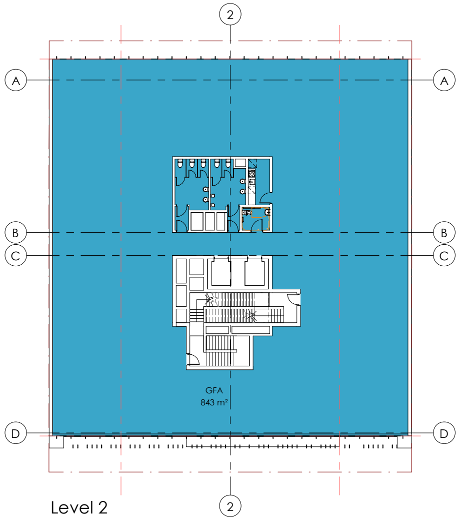


Upper Ground Floor

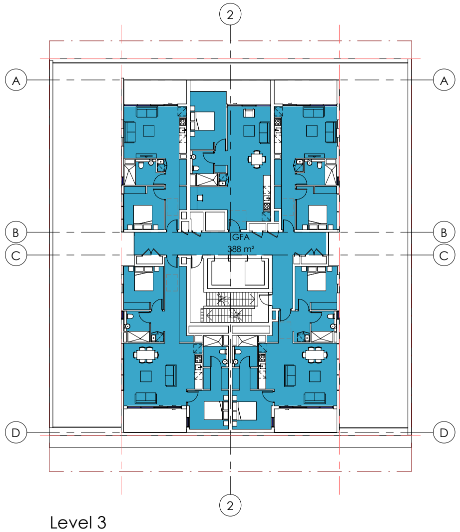


Level 1

GFA



Level 2



Level 3

Typical Residential Levels NSA per level (3-16)

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Typical 1B	52m2 +10m2 Balcony
Typical 1B + S (Silver)	66m2 +10m2 Balcony
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Non Residential FSR	**1.7 :1**
Total GFA	6887m2
Proposed Total FSR	**6.4:1**

Area Schedule (GFA) Tower	
Level 15	388 m²
Level 14	388 m²
Level 13	388 m²
Level 12	388 m²
Level 11	388 m²
Level 10	388 m²
Level 9	388 m²
Level 8	388 m²
Level 7	388 m²
Level 6	388 m²
Level 5	388 m²
Level 4	388 m²
Level 3	388 m²
	5043 m²

Area Schedule (GFA) Podium	
Level 2	843 m²
Level 1	672 m²
Upper Ground Floor	329 m²
	1844 m²

FOR INFORMATION ONLY

Rev.	Revision Description	Chk.	Date
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Client
EPIC LEISURE PTY LTD

NORTH

Scale 1:100
0 1m 2m 5m 10m

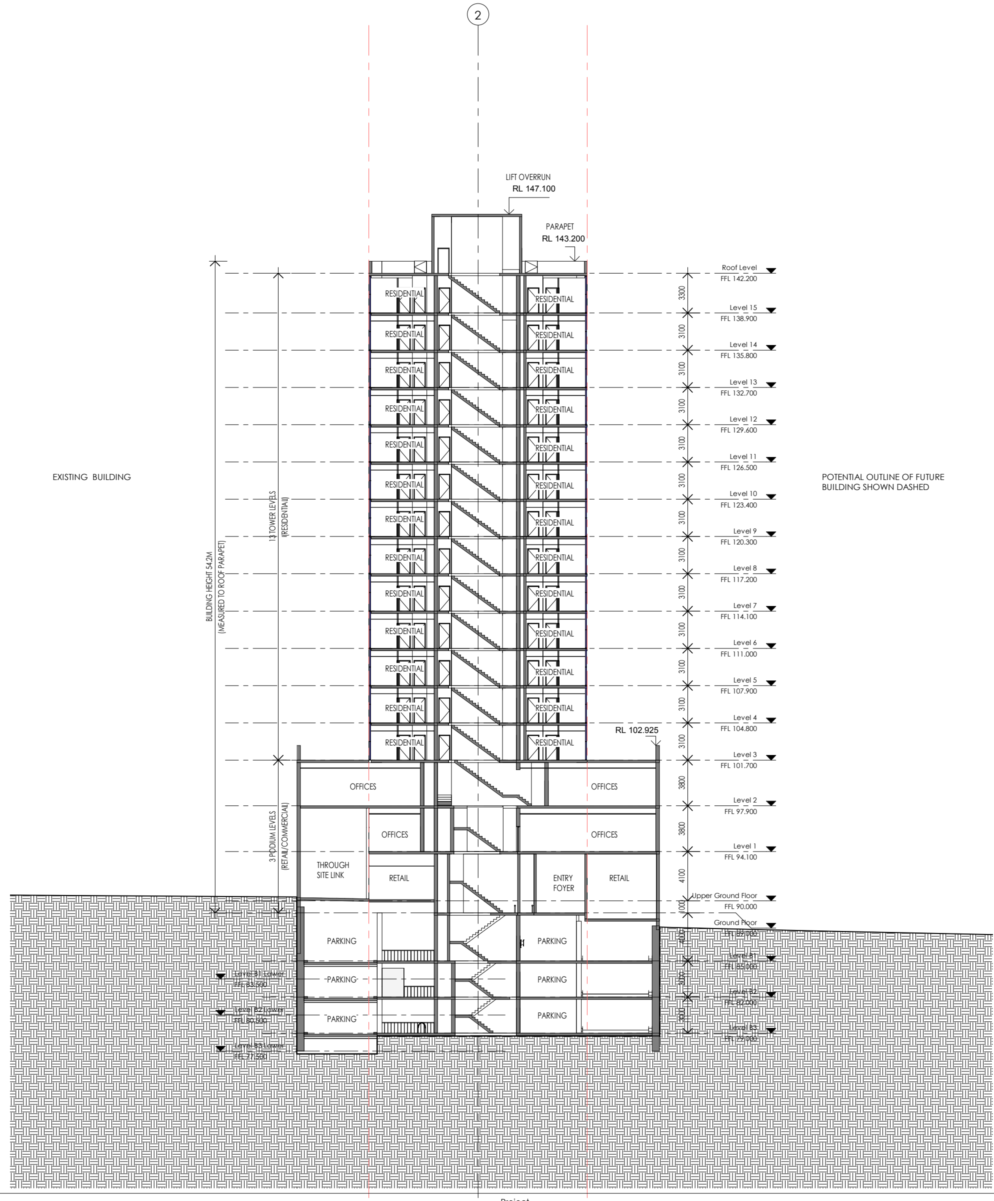
Project
50 - 56 ATCHISON ST.
ST LEONARDS

KANNFINCH
Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

Drawing
GFA AREA PLANS

Drawing No.
DA02.91
Revision
H

Scales 1 : 200 @ A1
Drawn Author
Checked Checker
Project No. 6309
25/01/2019 5:16:01 PM: Plot Date



Rev.	Revision Description	Chk.	Date
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Client
EPIC LEISURE PTY LTD

Scale 1:200
0 2m 4m 10m 20m

Project
50 - 56 ATCHISON ST.
ST LEONARDS

KANNFINCH
Kann Finch Group Pty Ltd 50 Carrington St Sydney NSW 2000
ACN 139 614 798 Tel +61 2 9299 4111
www.kannfinch.com
Nominated Architect: Stephen Jamison NSW ARB Reg No 5108

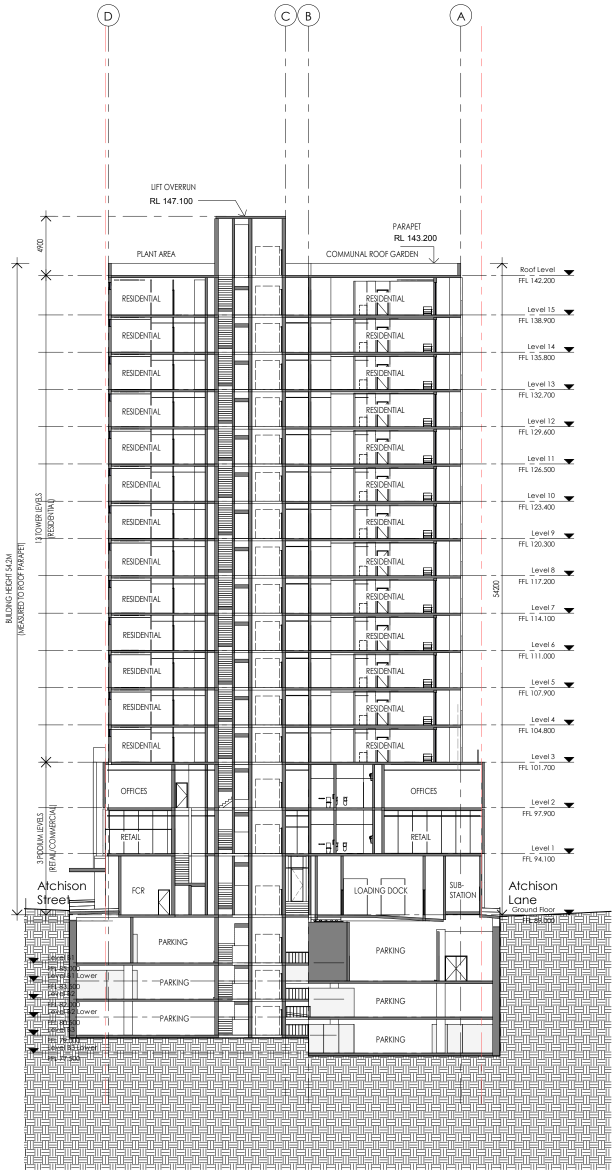
Drawing
BUILDING SECTION

Scales
1 : 200 @ A1

Drawn
Author

Checked

Drawing No.
DA03.01
Revision
I



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Client
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Project
50 - 56 ATCHISON ST.
ST LEONARDS

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Drawing
BUILDING SECTION

Drawing No.
DA03.02
Revision
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Author
Checked
Checker
Project No.
6309

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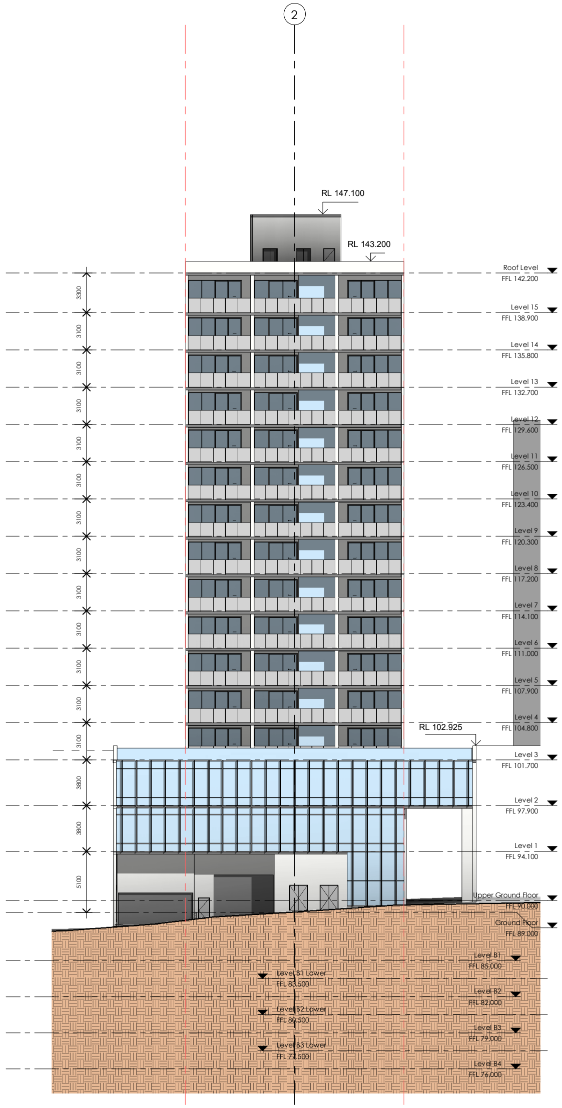

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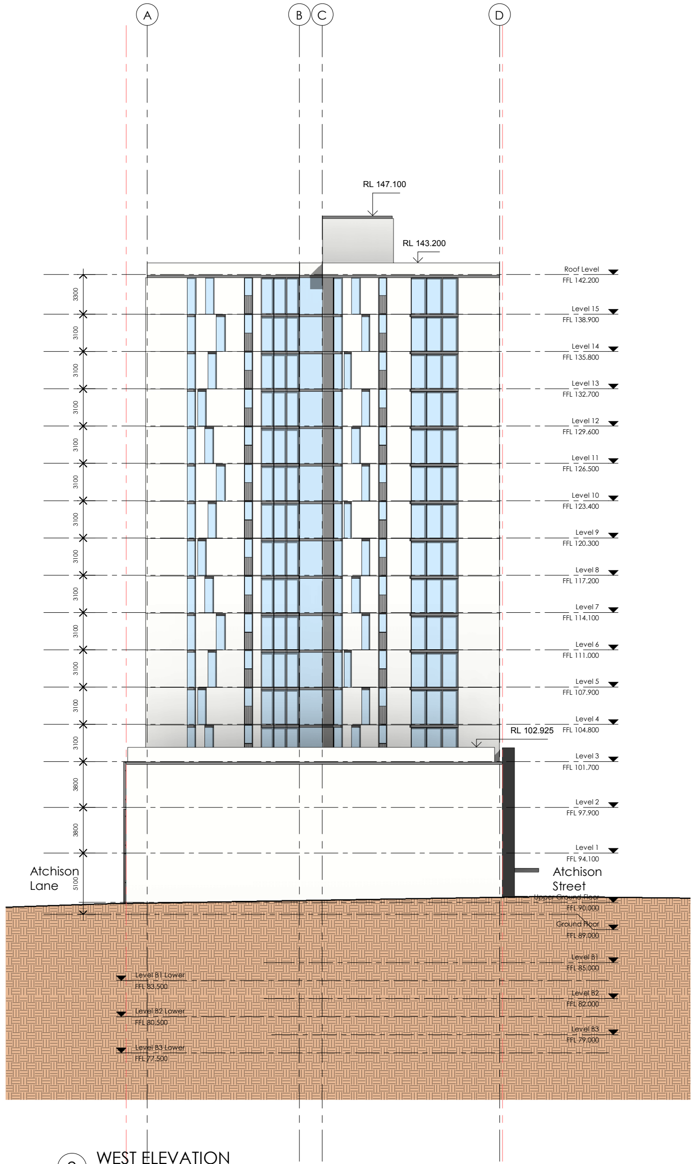

2 WEST ELEVATION

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Rev.	Revision Description	Chk.	Date
H	Issue for Information	SJ	25.01.2019
G	Modifications in response to council comments	SJ	09.10.2018
F	Issue for Information	SJ	13.03.2018

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Client
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Project
50 - 56 ATCHISON ST.
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Drawing
ELEVATION NORTH & WEST

Drawing No.
DA03.03
Revision
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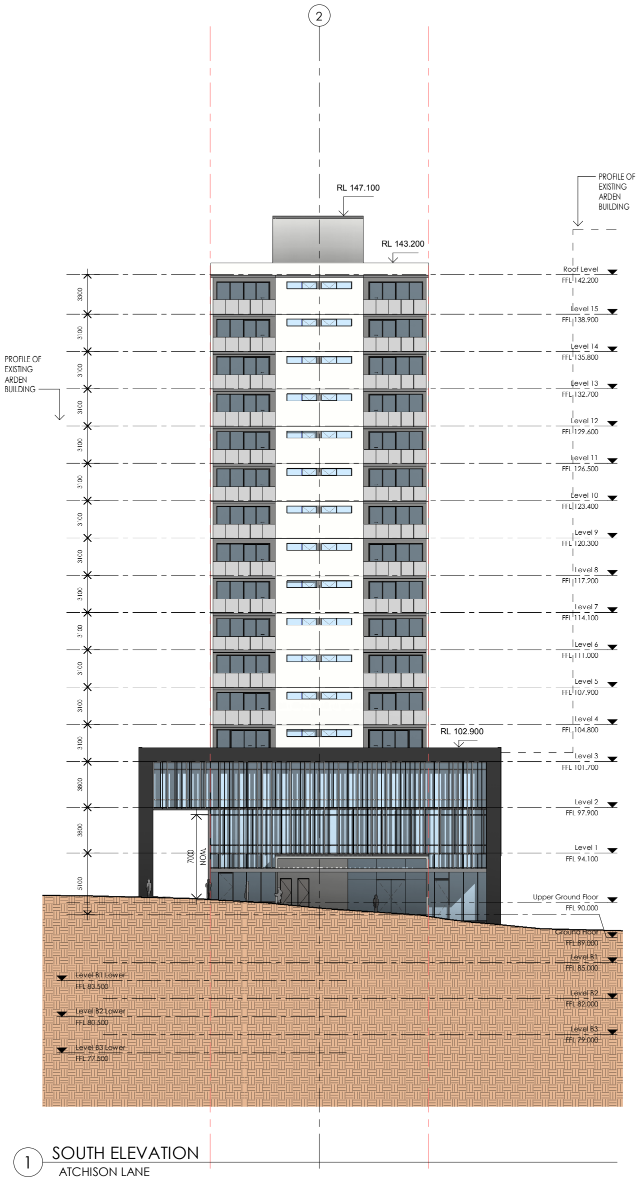
Drawn Author
Checked Checker
Project No. 6004



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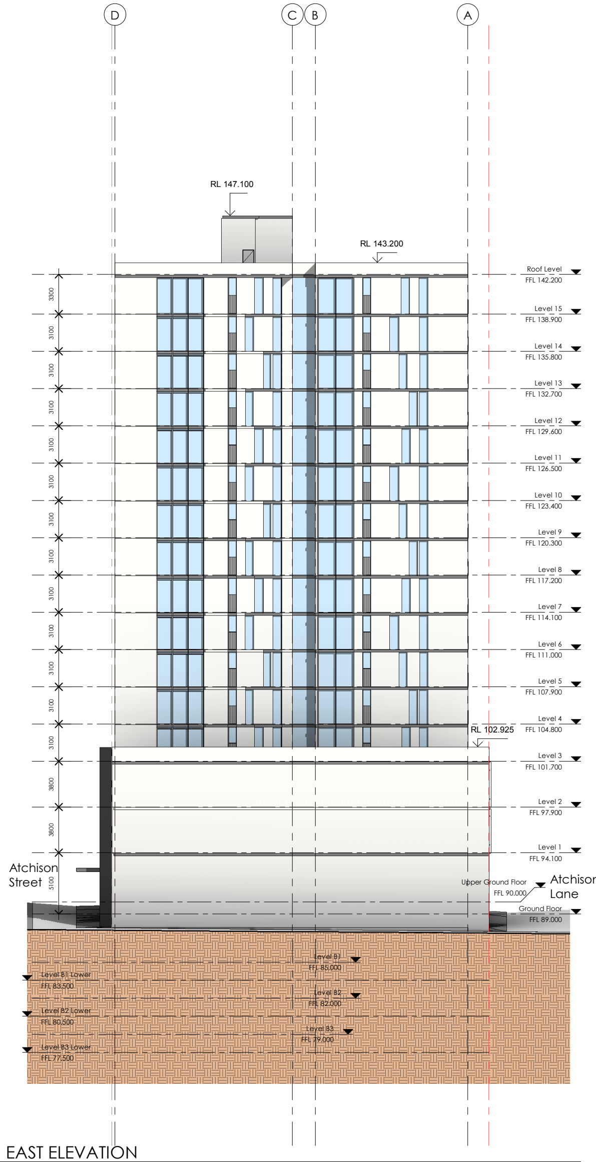

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Rev.	Revision Description	Chk.	Date
H	Issue for Information	SJ	25.01.2019
G	Modifications in response to council comments	SJ	09.10.2018
F	Issue for Information	SJ	13.03.2018

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EPIC LEISURE PTY LTD

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Project
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Drawing
ELEVATION SOUTH & EAST

Drawing No.
DA03.04
Revision
H

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Drawn Author

Epic Leisure Pty Ltd

50-56 Atchison Street, St Leonards

Transport Impact Assessment

Issue 01 | 15 February 2018

Job number 259124-00

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Document Verification

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		Name	Leila Kazemnezhad	James Turner	Andrew Hulse
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		Name	Leila Kazemnezhad	James Turner	Andrew Hulse
		Signature			
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		Name	Leila Kazemnezhad	James Turner	Andrew Hulse
		Signature			
Issue 01	15 Feb 2018	**Filename**	50-56 Atchison Street, St Leonards.docx		
		Description	Final Version		
			Prepared by	Checked by	Approved by
		Name	Leila Kazemnezhad	John Fahey	Andrew Hulse
		Signature			
			Issue Document Verification with Document		✓

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1 Introduction

1.1 Background

Epic Leisure Pty Ltd has commissioned Arup to carry out a traffic and transport assessment of the Planning Proposal for the site at 50-56 Atchison Street, St Leonards (the site). The proposal is for the development of a high rise building which will include three (3) basement levels, one (1) level of retail premises on the ground floor, two (2) levels of commercial premises on Level 1 and Level 2 as well as 13 levels of residential apartments.

The site is located within the North Sydney Local Government Area (LGA) and is subject to that Council's controls. It is currently zoned as *'B4 Mixed-use'* and located in the Precincts 2 & 3 under the North Sydney Development Control Plan (DCP) 2013.

This report documents the findings of our investigations and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately. The development proposes 65 residential units and 2,378m^2 gross floor area (GFA) of retail / commercial floor area therefore is not exceeding a threshold of 300 apartments or 10,000m^2 GFA of commercial space. It will thereby not require formal referral to the Roads and Maritime Services (Roads and Maritime) under the provisions of SEPP (Infrastructure) 2007.

1.2 Scope of works

This transport assessment will address the following:

- An overview of the existing transport and planning context
- Generation of car trips
- Traffic impacts of the development
- Public transport accessibility
- Car parking arrangements
- Pedestrian and bicycle access
- Green initiatives

2 Existing Conditions

2.1 Site description

The proposed development site is located at 50-56 Atchison Street, St Leonards which is shown in Figure 1. It is approximately 2 kilometres north-west of North Sydney CBD and within 500 metres of St Leonards Railway Station. It is legally described as Lot 6 in DP2872 and Lot 7 in DP2872. The site is located within the North Sydney Council LGA (precincts 2 & 3) and is currently zoned as B4 Mixed Use.

The existing site has an area of approximately 720m^2 and comprises of a four (4) storey office building with 19 parking spaces in the ground floor area. St Leonards is identified as a strategic centre by the NSW Government in 'A Plan for Growing Sydney' (the old Metropolitan Strategy for Sydney) due to the area's accessibility to public transport. The area surrounding the site has a mixture of high density residential, commercial and retail uses.

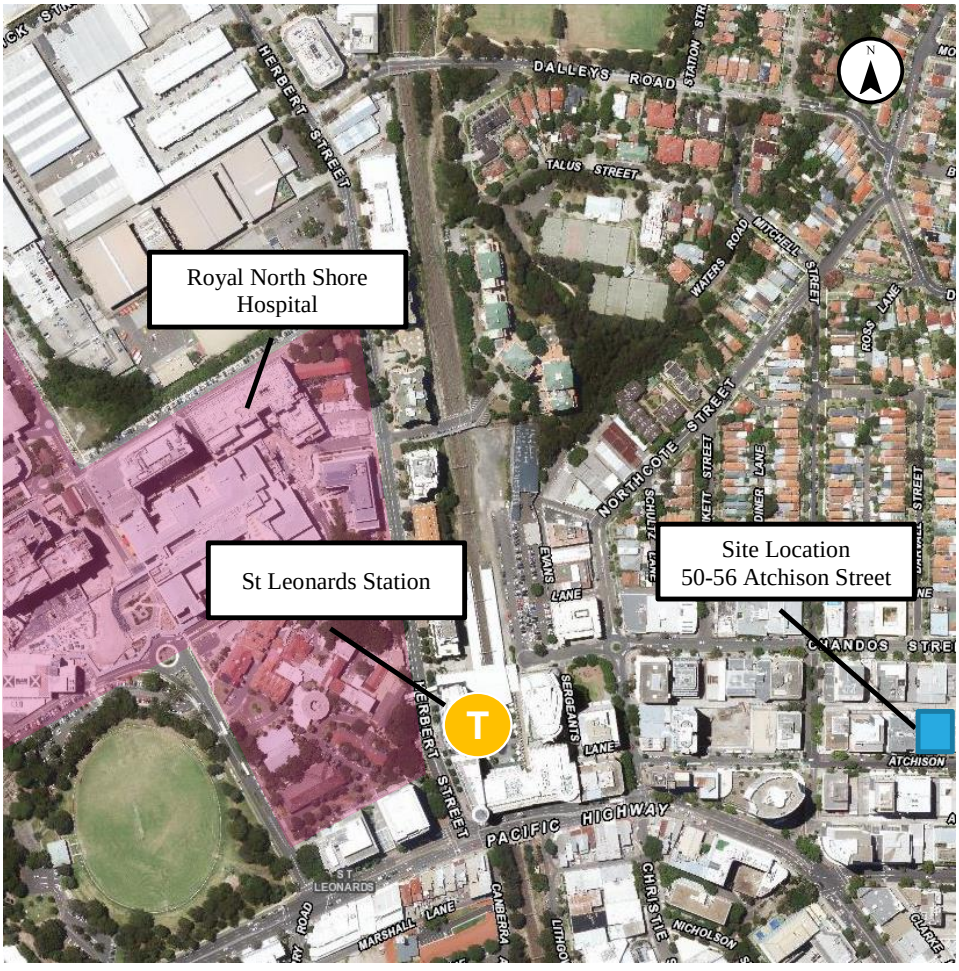


Figure 1: Site location

2.2 Travel behaviour

Travel to Work data from the 2016 Census for the site is shown in Figure 2. The data indicates that over 51% of the residents living in the area take the train to work.

2016 Census QuickStats

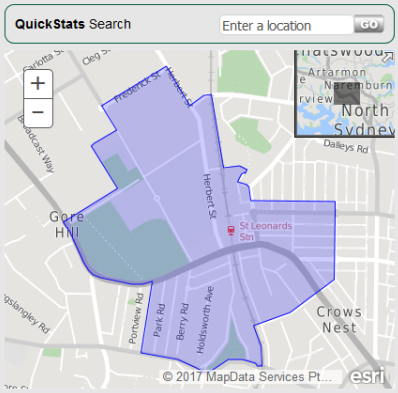
Australia | New South Wales | State Suburbs

St Leonards (NSW)

Code SSC13642 (SSC)

Search for a Community Profile

People		**5,495**
Male		49.6%
Female		50.4%
Median age		33
Families		**1,468**
Average children per family		
for families with children		1.4
for all families		0.3
All private dwellings		**3,080**
Average people per household		2
Median weekly household income		$2,327
Median monthly mortgage repayments		$2,500
Median weekly rent		$580
Average motor vehicles per dwelling		0.9



Travel to work, top responses *Employed people aged 15 years and over*	St Leonards (NSW)	%
Train	1,470	41.2
Car, as driver	759	21.3
Walked only	473	13.3
Bus	203	5.7
Worked at home	115	3.2
People who travelled to work by public transport	1,847	51.4
People who travelled to work by car as driver or passenger	881	24.5

Figure 2: Existing travel patterns

Source: ABS Census Quickstats

Mode share patterns at the site were also analysed using 2011 Journey to Work (JTW) Census data from the Transport Performance and Analytics (TPA) from Transport for NSW. The JTW data for travel zone 1844 was used to assess the likely mode of peak hour trips to and from the site. The location and the coverage of travel zone 1844 is shown in Figure 3. The results of the analysis are shown in Table 1.

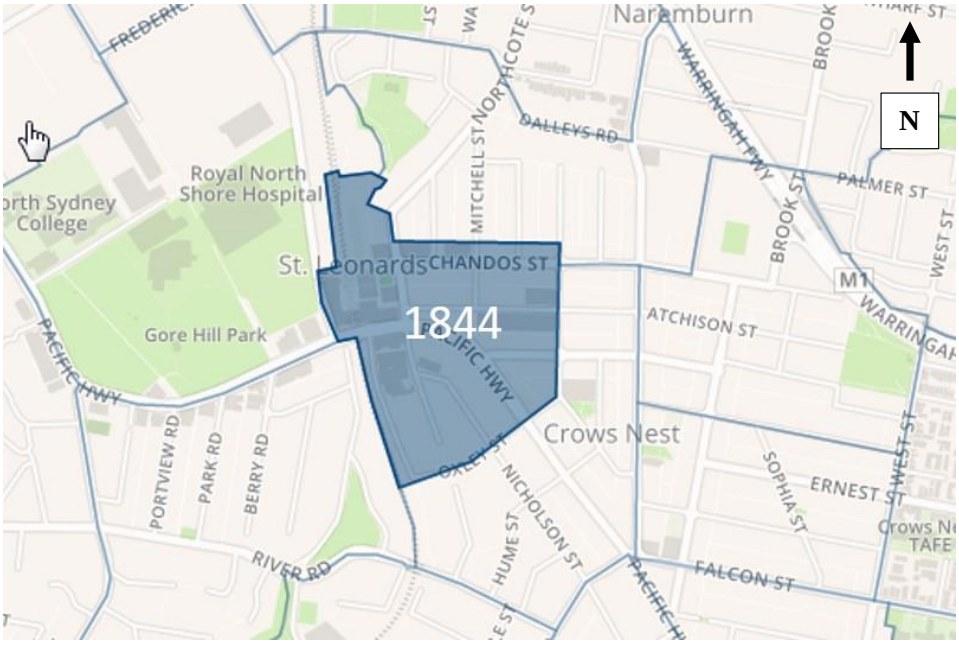


Figure 3: Journey to Work travel zone coverage

Source: TPA, 2011

Table 1: Journey to Work travel patterns

Mode	Inbound trips to work	Outbound trips to work
Train	37%	49%
Bus	8%	15%
Car	44%	24%
Walk	5%	15%
Other	2%	2%
Mode not stated	1%	0%
Total trips	10,938	1,959

The JTW data shows that residents of travel zone 1844 rely primarily on public transport to commute to work. The data reveals that commuting to work by train is the most heavily used mode of transport at 49%. This can be attributed to the close proximity of St Leonards Station and the frequency of services to the Sydney CBD and Chatswood CBD.

The JTW data also reveals that commuters travelling to travel zone 1844 rely more heavily on car trip modes which makes up 44% of inbound trips. Commuters travelling to work by train make up 37% of inbound trips and trips made by bus make up 8%.

2.3 Public transport

The site has good access to public transport and is located within 400m walking distance from St Leonards Station and within 300m walking distance from bus stops located on the Pacific Highway which are illustrated in Figure 4. It is also within 350m walking distance of the future Crows Nest Metro Station.

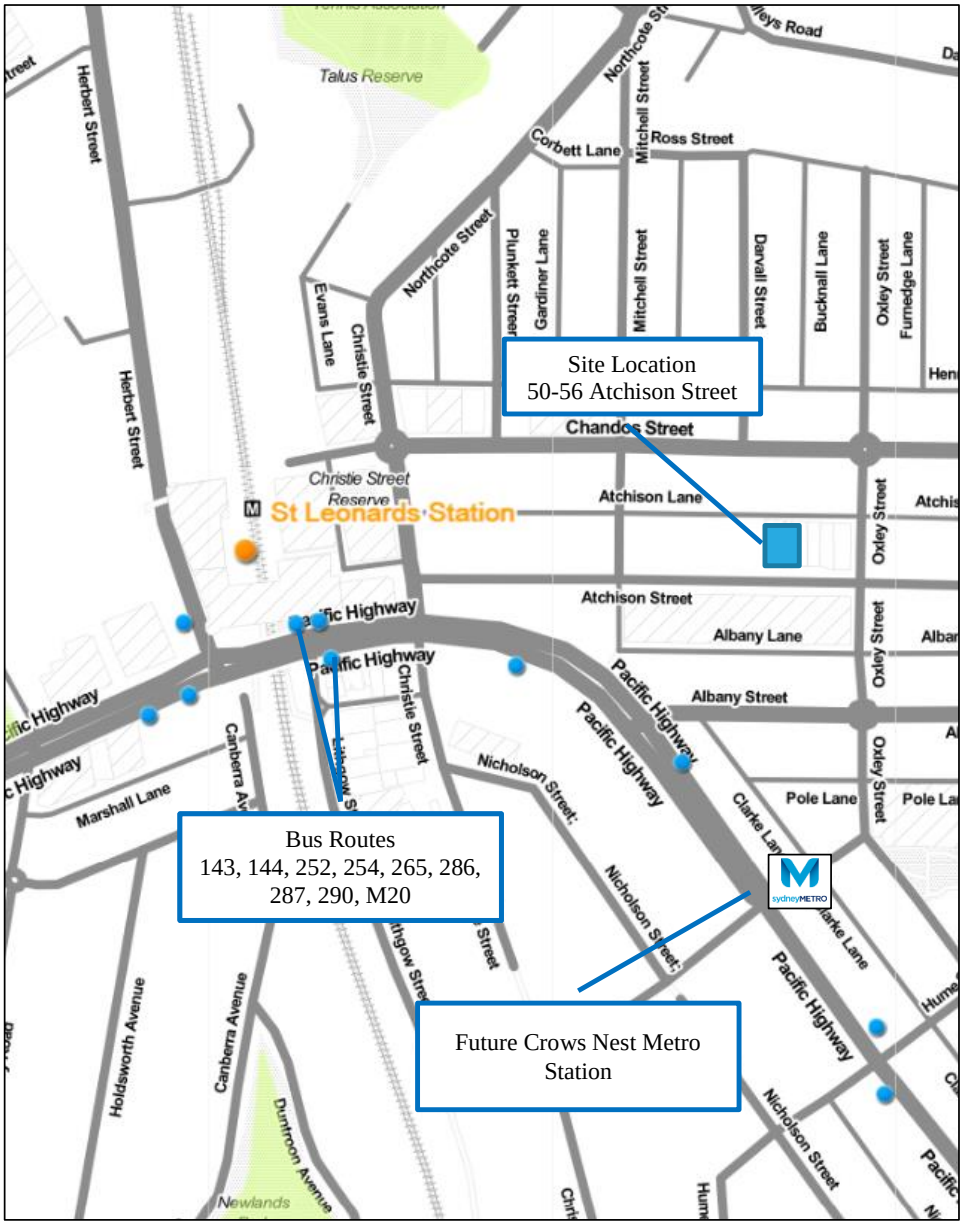


Figure 4: Existing public transport around the site

2.3.1 Bus

The existing bus routes serving the site are shown in Figure 5. Bus M20 provides access to the City via the Pacific Highway, while the other buses serve various suburbs regionally.

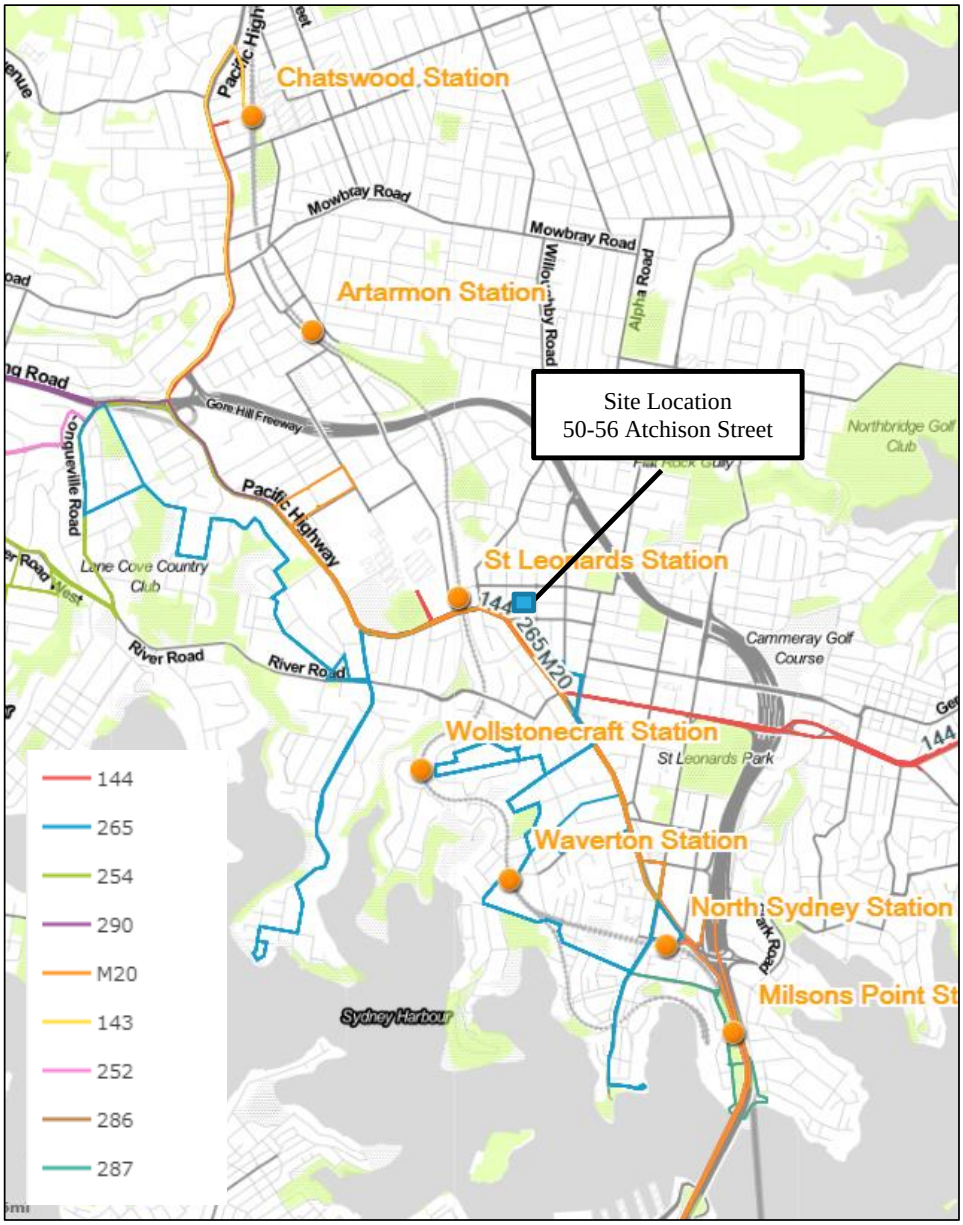


Figure 5: Bus routes serving the site

The bus routes connecting to the bus stops shown in Figure 4 are summarised in Table 2. Buses connect the local area to the Sydney CBD, Chatswood CBD, Crows Nest, Epping, Lane Cove and surrounding suburbs. The bus stops are well served, with frequent services throughout the day and express buses operating during the peak periods.

Table 2: Bus routes and frequencies

Bus Route	Service description
Route 143, Manly and Macquarie University	Services every 30 minutes throughout the day in each direction.
Route 144, Chatswood and manly via Royal North Shore Hospital	Services every 30 minutes throughout the day in each direction.
Route 252, Lane Cove West and City via Pacific Highway	Services every 30 minutes throughout the day in each direction.
Route 254, Riverview and City via Pacific Highway	Services every 30 minutes throughout the day in each direction.
Route 257, Chatswood to Balmoral Beach	Services every 30 minutes throughout the day in each direction.
Route 265, McMahons Point and Lane Cove via Greenwich Wharf	Services every 30 minutes throughout the day in each direction.
Route 286, Denistone East and City via Pacific Highway	Services every 30 minutes during the peak periods between Monday to Friday
Route 287, Ryde and Milsons Point via Pacific Highway and North Sydney	Services every 30 minutes during the peak periods between Monday and Friday in each direction
Route 290, Epping and City via Macquarie Centre and Pacific Highway	Services every 15 minutes during the peak periods between Monday and Friday in each direction Services every hour at all other times.
Route M20, Botany and Gore Hill	Services every 10 minutes during the peak periods in each direction. Services every 15 minutes at all other times.

2.3.2 Trains

St Leonards Station services the T1 North Shore and Northern lines, and the Central Coast and Newcastle lines. The railway station is directly connected to other major railway stations such as Central Station, Chatswood Station and Epping Station. The railway station is well served by trains with services every three minutes during the peak periods in both directions of travel. The advent of Sydney Metro will provide additional connectivity to and from the site. From the future Crows Nest Station (approximately 250m from the site), Central Station may be reached in 11 minutes (indicative), and Sydney Metro's future Martin Place Station in 7 minutes (indicative). The Sydney Metro route and station locations are shown in Figure 6.

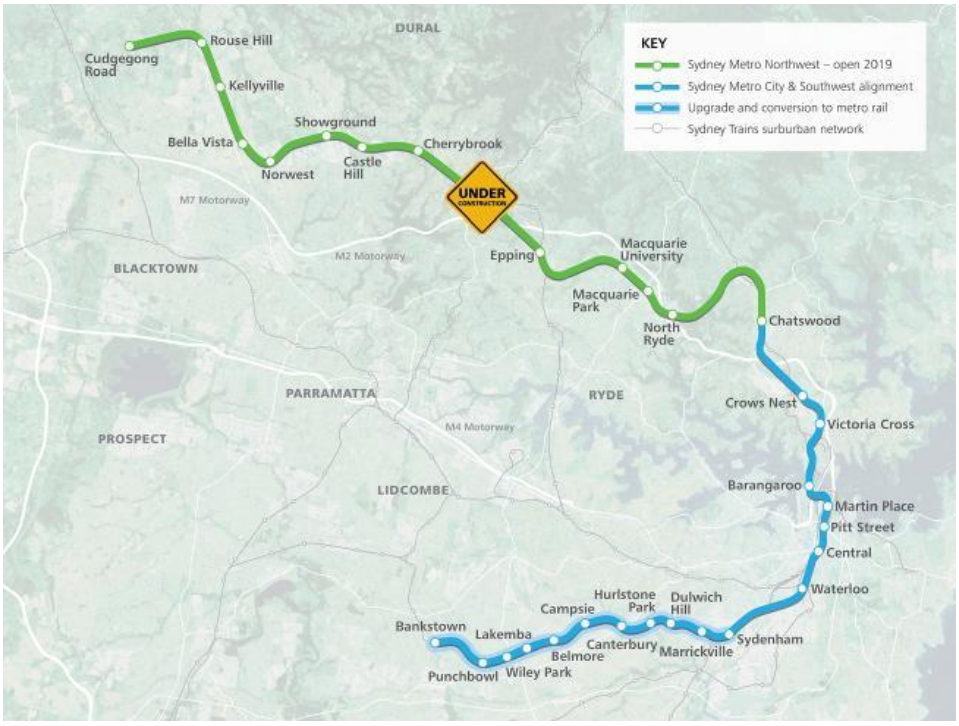


Figure 6: Sydney Metro route and station locations

2.3.3 Walking

Walking facilities surrounding the site are efficient with a comprehensive network of footpaths linking key attractors, such as the railway station, bus stops and the Royal North Shore Hospital.

2.3.4 Cycling

The recommended Roads and Maritime cycle routes are shown in Figure 7. Atchison Street provides east-west cycle routes, while Herbert Street and Canberra Avenue provide north-south cycle routes. The site is well situated to take advantage of these cycle routes to encourage use of green travel methods.

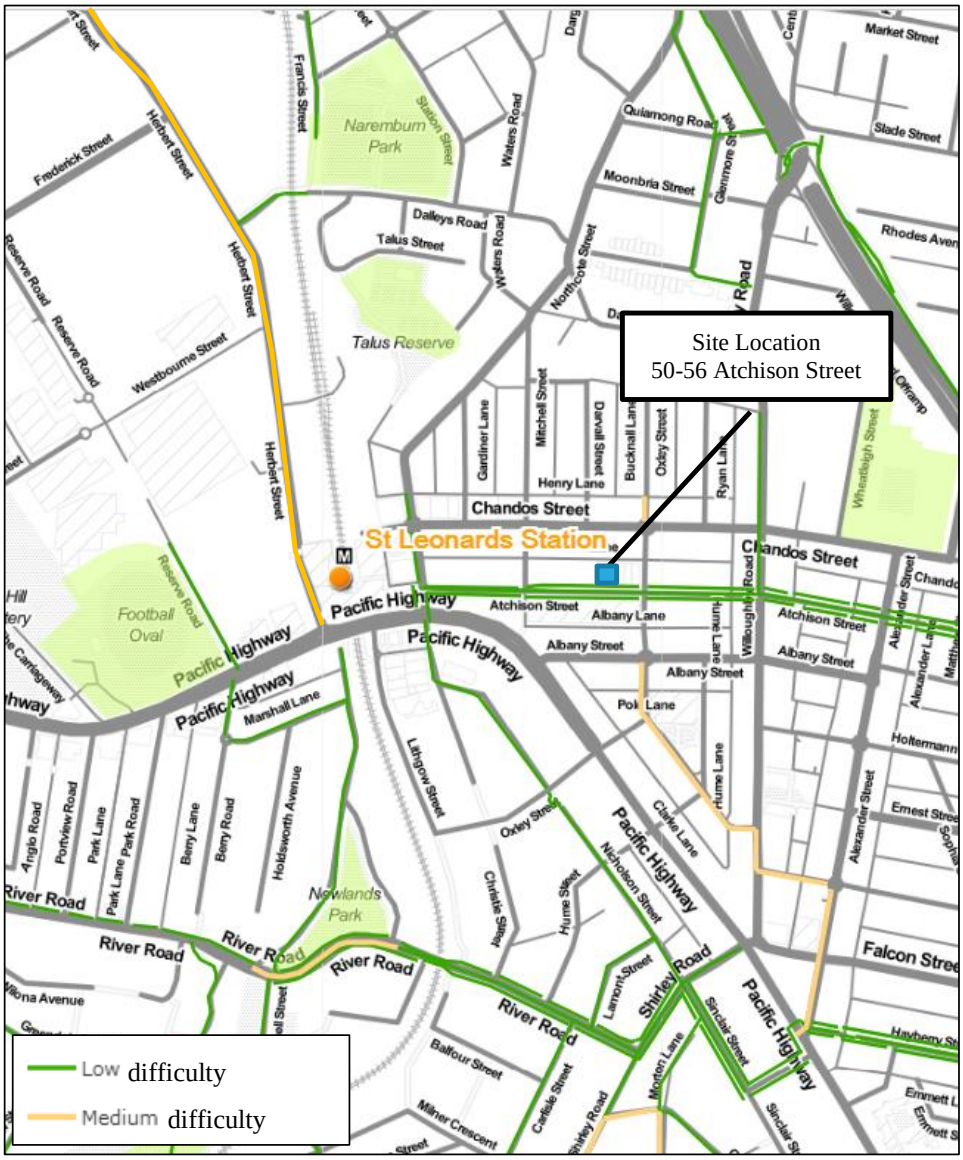


Figure 7: Roads and Maritime recommended cycle routes near the site

2.3.5 Travel times

The transport interchange at St Leonards serves a number of areas across Sydney. An accessibility map (as shown in Figure 8) illustrates the locations within 30-minute public transport travel time of the site.

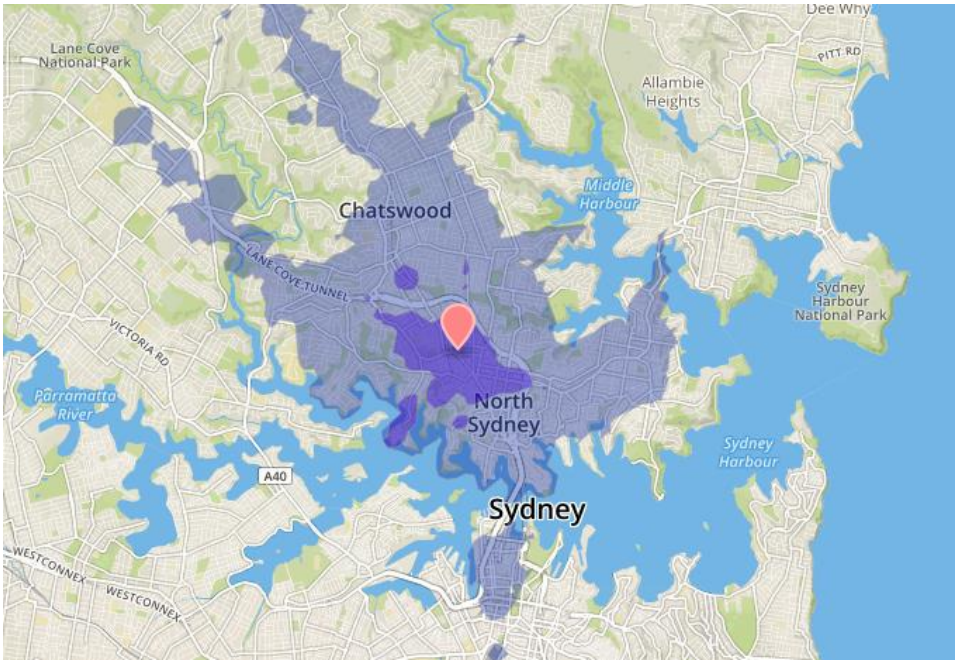


Figure 8: Locations within 30-minute public transport travel time of site

Source: Arup's T3A tool

2.4 Vehicle access

Existing vehicular access to the site is located on Atchison Lane as shown in Figure 9. Driveway surveys were carried out at the site during school term in December 2017 during peak hours, with the following results:

- AM, 7:30am to 8:30am, 1 cars entered, 4 cars departed the site
- PM, 5:00am to 6:00pm, 3 cars entered, 1 cars departed the site

Figure 9: Vehicle access to the existing site

2.5 Road network

The main roads surrounding the site are Pacific Highway to the south, Atchison Street to the north, Christie Street to the west, and Willoughby Road to the east, shown in

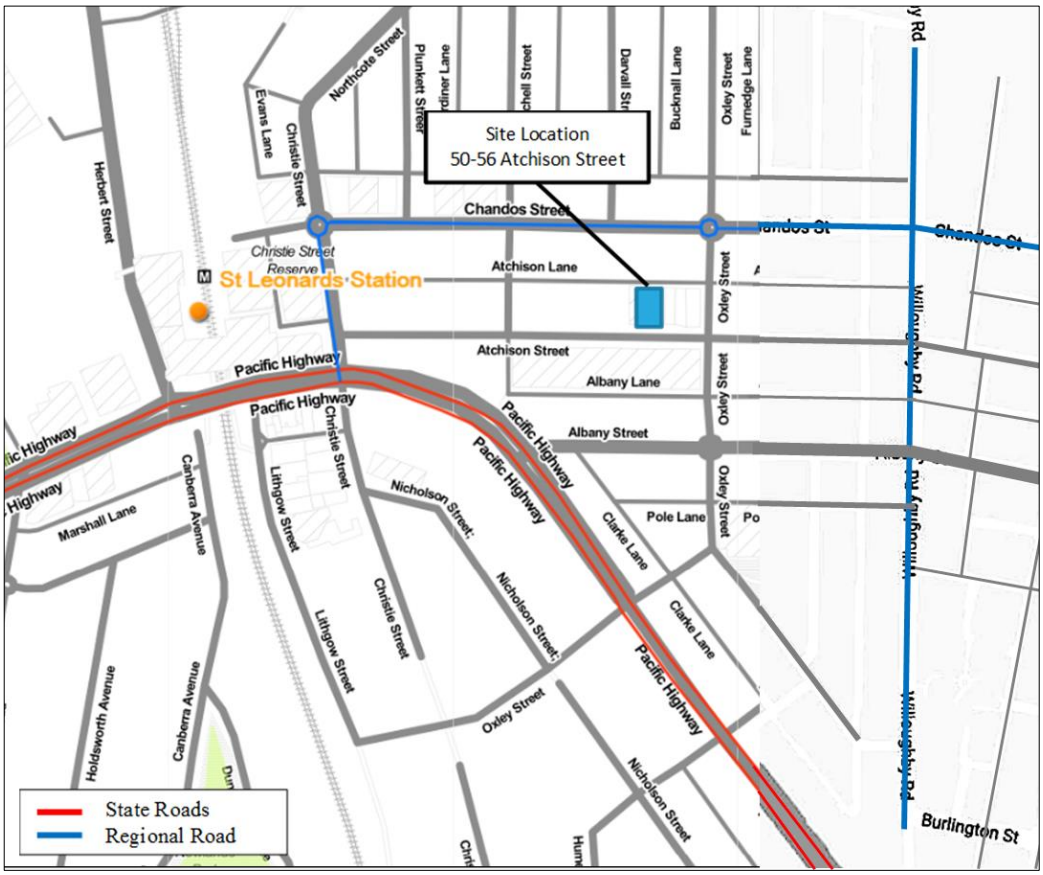


Figure 10. To manage the extensive network of roads for which Council is responsible under the *Roads Act 1993*, Roads and Maritime in partnership with local government established an administrative framework of *State*, *Regional*, and *Local Road* categories. State Roads are managed and financed by Roads and Maritime and Regional and Local Roads are managed and financed by Council.

Regional Roads perform an intermediate function between the main arterial network of State Roads and Council controlled Local Roads. Due to their network significance Roads and Maritime provides financial assistance to Council for the management of their Regional Roads. Vehicle entry to the site fronts Atchison Street, which is a local road.

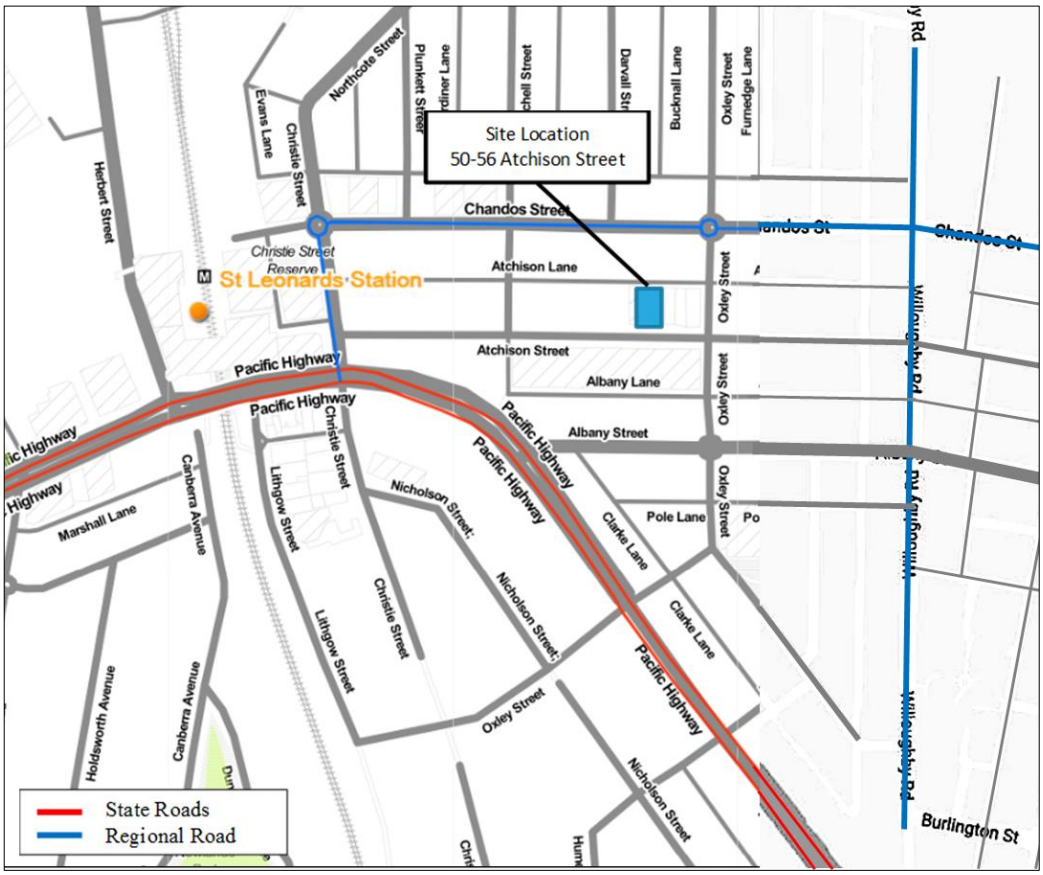


Figure 10: Classified roads surrounding the site

Christie Street is a regional road north of Pacific Highway operating with a 50km/h speed restriction.

Chandos Street is a regional road that runs between Christie Street to the west and connects Brook Street from the Warringah Freeway to the east. It is subject to a 50 km/hr speed limit restriction and on street parking is permitted for up to 2hours during 8:30am to 6.0pm Monday to Friday on both sides of the road.

Atchison Lane is a local road that connects to Christie Street to the west and Hume Lane to the east. Atchison Lane carries two-way traffic flow between Christie Street and Hume Lane.

Atchison Street operates as a one-way eastbound local street between Christie Street and Mitchell Street with parking on both sides and includes a line marked contra-flow bicycle lane as shown in Figure 11. This street operates as a two way two lane between Mitchell Street and Matthew Lane with parking on both sides. Atchison Street runs parallel to Pacific Highway and provides the access driveways to the site and adjacent properties.

Figure 11: Atchison Street, St Leonards

Willoughby Road is a regional road that runs between Falcon Street to the south and Mowbray Road to the north. This street operates as a two way two lane with parking on both sides of the road. It is subject to a 50km/hr speed limit restriction in the vicinity of the site and on street parking is permitted for up to 1hour during 8:30am to 3.30pm Monday to Friday and 8:30am to 12.30pm on Saturdays on western side of the road. On eastern side of the road, on street parking is permitted for up to ½ hours during 8:30am to 6.0pm Monday to Friday and 8:30am to 12.30pm on Saturdays.

Pacific Highway is a divided six-lane, two-way arterial road with restricted parking opportunities available on each side of the road outside of the peak periods. The Pacific Highway within the vicinity of the site connects the M1 Bradfield Highway to the M1 Gore Hill Freeway / M2 Lane Cove Tunnel via the North Sydney CBD and Lower North-Shore suburbs. It is a major bus corridor servicing a large number of bus routes connecting the Sydney CBD to the North-Shore region. There are 60km/h speed restrictions in the section of Pacific Highway relevant to the study area.

2.6 On street parking

There are only metered restricted parking opportunities available on surrounding streets. Christie Street and Atchison Street are all metered with a 2-hour restriction between 8.30am and 6pm, Monday to Friday and 8.30am- 12.30pm Saturday. The section of Pacific Highway within the vicinity of the site operates as a T3 transit lane during 3pm to 7pm, Monday to Friday and has a 1-hour restriction at other

times. Due to the lack of unrestricted parking opportunities on surrounding streets, residents and office workers are generally discouraged from parking on streets.

2.7 Existing traffic volumes

Traffic count data for the purposes of the analysis was sourced from two previous studies, namely the St Leonards South Strategy, Paramics Base Model – AM Peak, Calibration and Validation Report and the St Leonards South Strategy, Paramics Base Model – PM Peak, Calibration and Validation Report for this section of the Pacific Highway (Lane Cove Council, 2013).

Additional data for streets surrounding the site were obtained from a previous traffic impact assessment, Traffic, Parking and Accessibility Report (Brown, 2014), which accompanied a planning proposal for Leighton and Charter Hall's development sites to the east of the site. Existing mid-block traffic volumes during the AM and PM peak periods are shown in Figure 12 and Figure 13. Daily traffic flows in the vicinity of the site are also presented in Figure 14.

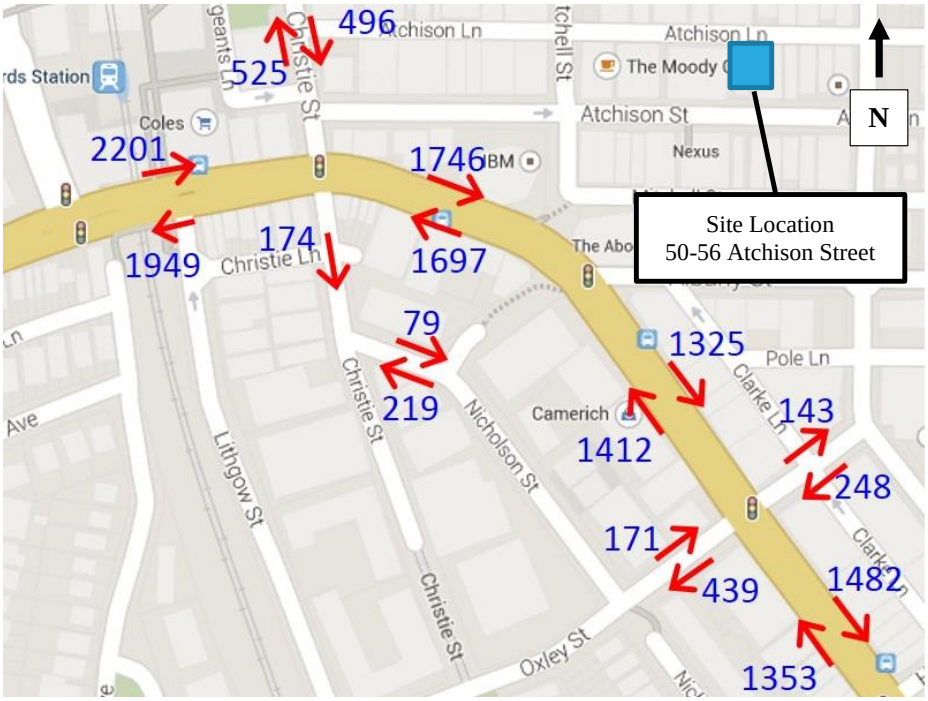


Figure 12: Existing AM peak mid-block traffic volumes

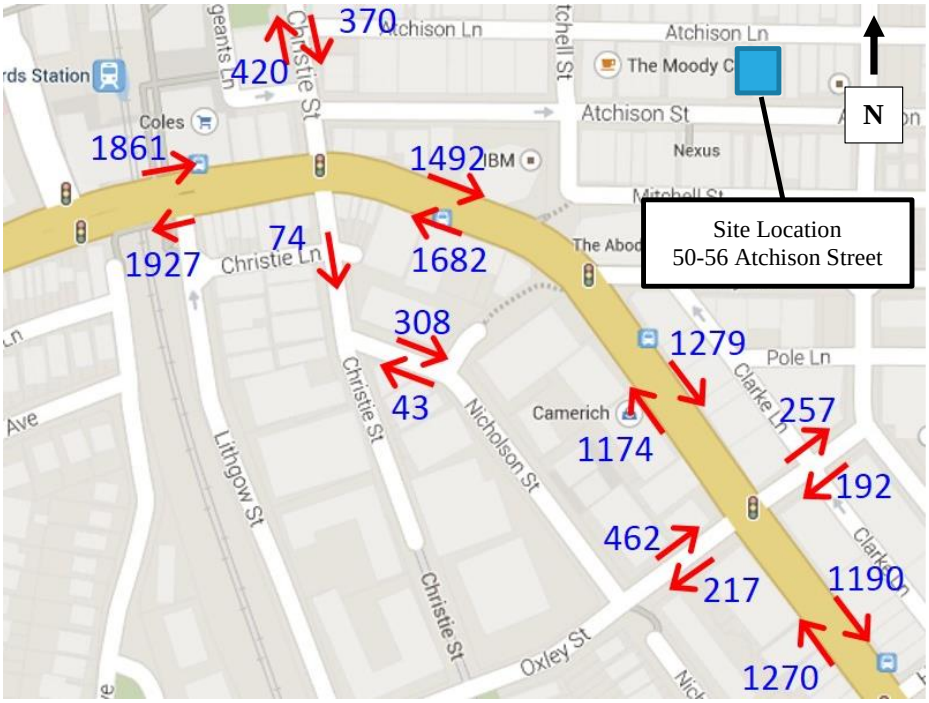


Figure 13: Existing PM peak mid-block traffic volumes

Daily traffic movements in the precinct are presented in Figure 14 below.

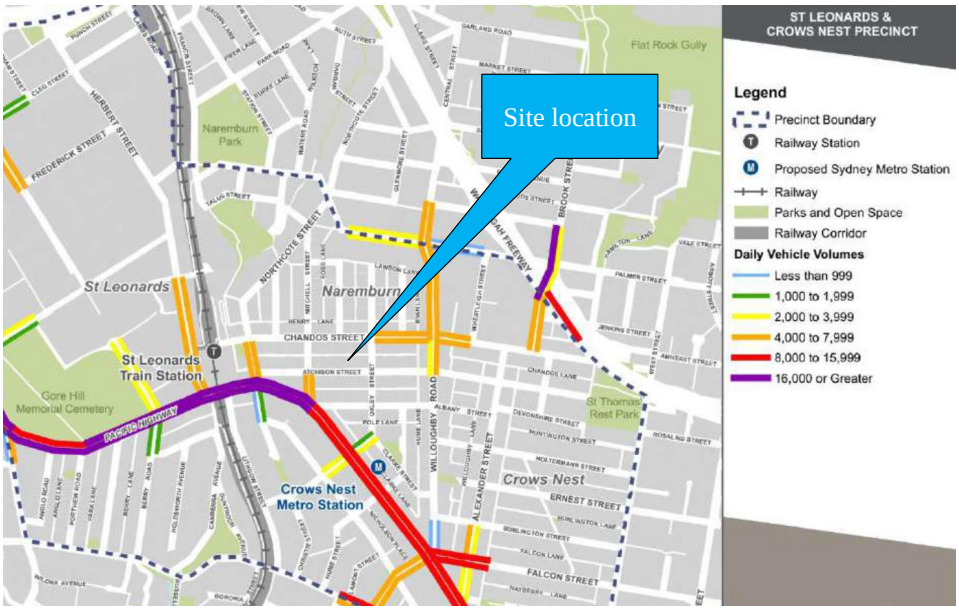


Figure 14: Daily traffic flows

Source: St Leonards and Crows Nest Station Precinct Transport Study (Cardno, 2017)

3 Description of Planning Proposal

3.1 Overview

The Planning Proposal for the site located at 50-56 Atchison Street, St Leonards seeks approval to facilitate a future redevelopment. As demonstrated in the indicative concept design that accompanies the Planning Proposal, the future development could consist of:

- 65 units – residential premises
  - 40% 1 bedroom units (26 units)
  - 20% 1 bedroom units + study room (13 units)
  - 40% 2 bedroom units (26 units)
- 2,426m^2 non-residential GFA
- 32 car parking spaces located in the basement levels

3.2 Vehicle access

According to the indicative concept design, vehicle access is proposed to be maintained on Atchison Lane, with the location unchanged from the existing arrangement. The loading dock is also proposed to be adjacent to the car park ramp. Loading/ unloading will be taken place from the ground level, with one (1) 8.8m mediums rigid vehicle (MRV) space proposed as shown in Figure 15.

The car park is designed as an efficient ramp system shown in Figure 15. Both the car park and the loading dock will be designed to meet AS2890.1 and AS2890.2 requirements respectively.

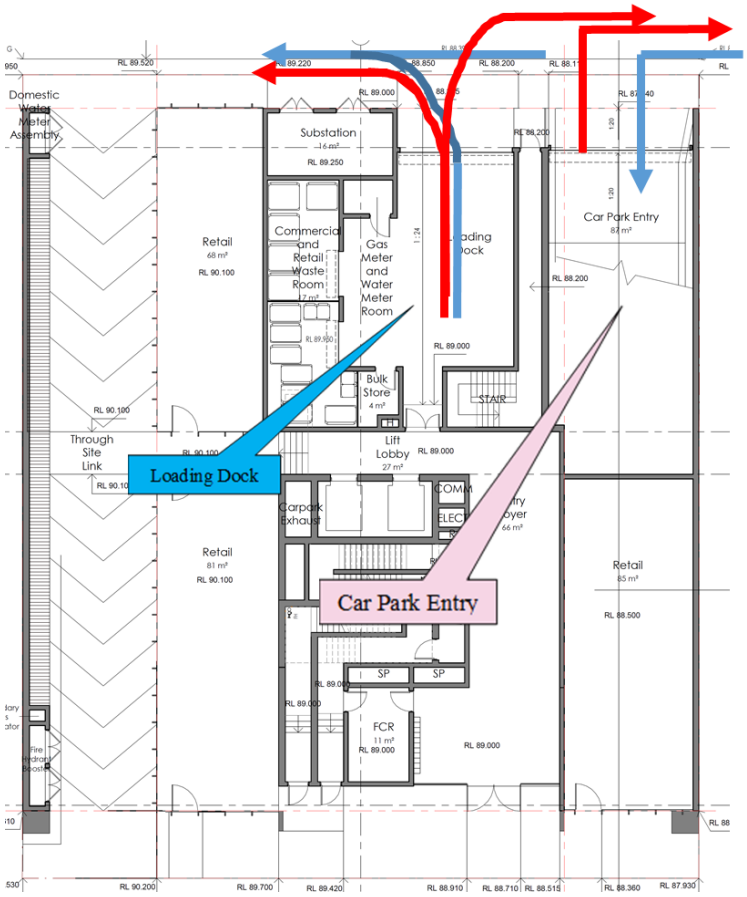


Figure 15: Ground Level layout, vehicles car park entry ramp and loading dock

The proposed development proposes a total of 32 parking spaces with access to Atchison Lane, which is categorised as a local street. It will therefore require a Category 1 Driveway under AS2890.1 (2004), being a combined entry and exit driveway of 3.0 to 5.5 metres. In response, the development proposes a 5.5-metre-wide driveway between kerbs to comply with two-way access in AS2890.

A swept path analysis of a 99th percentile (B99) vehicle entering and exiting the proposed development has been included in **Appendix A,** demonstrates satisfactory operation of the proposed Atchison Lane access.

The proposed loading dock accommodates one (1) MRV vehicle. According to the swept path analysis, the MRV will need to reverse into the loading area from the laneway which is considered acceptable given that:

- Existing service vehicles for adjacent developments already undertake this manoeuvre;
- The low frequency of service vehicles; and
- Deliveries would be made out of hours which minimise interactions with other vehicles and pedestrians.

A swept path analysis of these MRVs entering and exiting the proposed loading dock has also been presented in **Appendix A**.

In summary, the proposed access arrangements are expected to operate satisfactorily and hence, are considered acceptable.

4 Parking Assessment

4.1 Off-street car parking

The proposed development lies within 400m of a train station. Provision P1 and P7 of Section 10.2.1 from the *North Sydney DCP 2013* requires car parking for the respective uses of the proposed development to be provided in accordance with the parking rates shown listed in Table 3. It is noteworthy that the site is zoned as *'B4-Mixed Use'* and located in *St Leonards Precincts 2 & 3*.

The required parking for this development has been summarised in Table 4.

Table 3: North Sydney Council car parking rates Precinct 2&3

Development type		**DCP requirement**
Residential (Zone B4)	1 bedroom	0.25 spaces per apartment
	2 bedrooms	0.5 space per apartment
	3+ bedrooms	0.5 spaces per apartment
	Visitor parking	Not required
Non-residential	Commercial / retail premises	1 space per 400m^2 of GFA

Table 4: Parking requirements and provisions

Development type		**Number of apartments / GFA**	**DCP maximum parking**	**Proposed parking provision**
Residential (assuming Zone B4 mixed precinct 2&3)	1 bedroom	39 units	10	16 standard parking spaces, 7 adaptable parking spaces
	2 bedrooms	26 units	13	
	Visitor parking	NA	0	0 visitor parking spaces, 1 carwash bay and 1 Car share
Commercial / Retail	Office	2,426m^2	6	6 commercial/retail parking spaces and 1 accessible parking space
Maximum allowable car parking spaces			29 spaces	30 parking spaces and 1 carwash and 1 car share

As noted in Table 3, the proposed development is permitted to provide a maximum of 29 car parking spaces. In response, the development provides a total of 30 parking spaces including 16 standard residential, 7 adaptable parking, one (1) accessible, and six (6) commercial parking spaces. One (1) car wash bay and one (1) car share space have also been provided within basement level 1 and 2 respectively.

The proposed car parking provision and allocation satisfies the requirement of Council's DCP and is considered acceptable. It should be noted that the final amount of parking is subject to detailed DA design.

4.1 Motorcycle parking

Provision P1 and P12 of Section 10.2.1 from the DCP requires a motorcycle parking to be provided at a minimum rate of one space for every 10 car parking spaces or part thereof. Therefore, with 42 car parking spaces, the development is required to provide a minimum of 6 motorcycle parking spaces.

4.2 Accessible parking

Provision P6 of Section 10.2 from North Sydney Development Control Plan 2013 requires the development to provide at least one (1) accessible parking space per each adaptable unit. The development proposes seven adaptable units and in response, the plans provide seven accessible parking spaces which is compliant with the DCP.

In addition, to comply with Section D3.5 Class 3 of the Building Code of Australia, 1-2% of all non-residential parking spaces are to be designated as accessible = 1 space.

4.3 Bicycle parking

Council's DCP requires bicycle parking for the respective uses of the development to be provided in accordance with the rates listed in the sub-sections below. Bicycle parking would need to be provided at all basement levels for use by residents and commercial/community facilities as appropriate. These will be designed in future planning of the basements.

4.3.1 Residential

For residential uses, the following rates and provisions apply:

- Residential occupants: 1 space / dwelling = 65 bicycle lockers (Class 1 preferred) or racks in locked room (Class 2)
- Visitors/ customers: 1 space / 10 dwelling = 7 racks (Class 3)

It is noted that where an apartment in a residential building has a storage area on title that is large enough to accommodate a bike (i.e. being no smaller than a Class 1 bike locker as defined by AS2890.3:2015), then additional bike parking for that apartment is not required.

4.3.2 Commercial

For commercial uses, the following rates and provisions apply:

- Occupants: 1 space / 150m^2 = 15 racks in locked room (Class 2)
- Visitors/ customers: 1 space / 400m^2 = 5 racks (Class 3)

4.4 Car share

The installation of car share parking to replace general off-street parking is optional and at the discretion of the developer. Subject to future detailed design and planning, the site could provide one car share space.

4.5 Car wash bay

Provision P3 of Section 10.2.1 from the DCP requires a car wash bay to be provided for residential developments containing four or more dwellings. In response, one (1) carwash bay is proposed on Basement Level 3.

4.6 Loading and Servicing

Provision P1 of Section 10.4 from the DCP requires off-street loading and unloading facilities for all commercial premises having regard to the frequency of deliveries and size of goods to be delivered. Furthermore, provision P3 requires at least one (1) service delivery area, capable of accommodating either one (1) 12.5m Heavy Rigid Vehicle (HRV) or two (2) 8.8m Medium Rigid Vehicles (MRV) for the developments containing more than 60 dwellings. In addition, for the developments containing more than 30 dwellings but less than 60 units, one (1) service delivery space accommodating at least one (1) MRV must be provided.

Having regard for the scale and composition of the proposed residential yield and its commercial/retail premises, the number of residential dwellings is low with a total of just above 60 units. The proposed development residential makeup is considered to be small and it is considered that the service vehicle requirements of such developments would be less than that of a standard complex exceeding 60 apartments. Therefore, the development can be provided by one (1) combined residential and retail loading/unloading dock within the ground level to cater for delivery vehicles (up to an MRV).

In response, a shared loading/unloading area is proposed on Ground Floor fronting Atchison Lane, and bins would be transferred to the waste room next to the loading dock area for collection.

According to the swept path analysis, the MRV will need to reverse into the loading area from the laneway which is considered acceptable for the reasons outlined in section 3.2.

Overall, the servicing arrangements are considered to be acceptable and appropriate given the nature and scale of the proposed development.

The loading/ unloading management plan is recommended be applied to the development as following:

- All delivery vehicles for the retail/commercial premises be scheduled to arrive at the site outside of periods required for residential removals vehicles
- All garbage collection be undertaken kerbside on Atchison Lane by Council's waste collection vehicle

5 Transport Assessment

5.1 Person trip generation

The person trips generated by a development of the scale shown in the indicative concept design are 0.64 per unit during the AM peak hour and 0.54 per unit during the PM peak hour. This equates to a development person trip generation of 42 person trips during the AM peak hour and 35 person trips during the PM peak hour.

The commercial trips generated by the site during peak hours are 0.5 trips per employee. Assuming that for every 15m^2 of commercial floor area, there is one employee, the site will attract 114 employees (1,704m^2 commercial floor area). This equates to 57 person trips during the AM peak hour, and 57 person trips during the PM peak hour. The mode split for the development is estimated to be as presented in Table 5.

It is noted that to estimate the mode share split for the development, the Green Travel Plan (GTP) objectives are being taken into consideration. To encourage people to make greater use of public transport, cycling, walking and car sharing for commuting as well as to encourage people to leave their private cars behind at home and use public transport services are major objectives of GTP. Therefore, it is estimated that there would be a decrease in the car driver mode percentages and an increase in other modes (Train, Bus, Walk, Cycling, and Car passenger) percentages when comparing them with Travel to Work and Journey to Work percentages.

Table 5: Mode share and peak hour person trips

Mode Share (Estimated)		**Residential**		**Commercial/Retail**	
		AM Peak Trips	**PM Peak Trips**	**AM Peak Trips**	**PM Peak Trips**
Car Driver	11%	6	5	6	6
Car Passenger	5%	3	2	3	3
Train / metro	45%	25	21	26	26
Bus	15%	8	7	9	9
Walk	21%	12	10	12	12
Cycling/Other	3%	2	1	2	2
Sub-Total	**100%**	**55**	**46**	**57**	**57**

5.2 Public transport

A development in accordance with the indicative concept design is forecast to generate demand for 18 trips by train/metro and 8 trips by bus during the AM peak hour. The distance to the train station is less than a 4-minute walk, while the bus stops on Pacific Highway are also within a 5-minute walk.

In addition, the future Crows Nest Metro Station will be within viable walking distance for residents and employees. Once operational, the Sydney Metro is expected to operate at a four-minute frequency and will provide high quality public transport access to the site. Sydney Metro will also provide additional capacity at St Leonards train station to facilitate the additional trips generated by any new development on the subject site.

5.3 Vehicle trip generation

Residential

Recent surveys undertaken by Roads and Maritime of high density residential developments in key centres such as St Leonards has one of the lowest traffic generation rates during peak hours. For every 100 residential car parking spaces, only 10 car trips are generated during the AM peak hour and 5 car trips during the PM peak hour. Any residential development on this site would be considered to be reasonably similar to the results of the recent surveys.

Notwithstanding the expected lower rates, the Sydney-wide average rate of 0.15 trips / space in the AM peak hour and 0.12 trips / space in the PM peak hour has been adopted for the analysis conservatively. Application of these rates to the 26 residential and residential/visitor spaces envisioned in the development results in the following traffic generation:

- 4 vehicle trips per hour during the AM peak period (1 in, 3 out); and
- 3 vehicle trips per hour during the PM peak period (2 in, 1 out).

Commercial/ Retail (Office)

Office traffic generation rates are directly proportional to the number of off-street parking spaces provided within the site. This is because existing on-street parking on Christie Street and Atchison Street are all metered with a 2-hour restriction between 8.30am and 6pm, Monday to Friday. For the purpose of this report, we have assumed that all 6 car spaces will be occupied, with a conservative 50% of the car trips made during the road network peak hour. Application of this car trip rate to the parking spaces assigned to the commercial/retail component of the development result in the following traffic generation:

- 3 vehicle trips per hour during the AM peak period (2 in, 1 out); and
- 3 vehicle trips per hour during the PM peak period (1 in, 2 out).

Combined traffic Generation

Having regard for the trip generation rates for the above uses, the mixed use development is expected to generate the following traffic during peak periods:

- 7 vehicle trips per hour during the AM peak period (3 in, 4 out); and
- 6 vehicle trips per hour during the PM peak period (3 in, 3 out).

Existing traffic generation

The existing traffic surveyed is discounted to gain an understanding of the net increase in traffic that would be generated from the site.

Net traffic generation

When accounting for the existing development on-site, future development permissible under the planning controls sought within the planning proposal is estimated to result in the following net change in traffic generation:

- 2 vehicle trips (2 in, 0 out) in the AM peak.
- 2 vehicle trips (1 in; 1 out) in the PM peak.

A breakdown of the calculations is shown in Table 6. The site is estimated to generate a net increase of no more than 6 car trips during the peak hours.

Table 6: Trip generation upon completion of the site

Development type	**Number**	**Unit**	**AM peak hour**		**PM peak hour**	
			Rate	**Car trips**	**Rate**	**Car trips**
Residential	26	Parking spaces	15 car trips per 100 spaces	4(1 in, 3 out)	12 car trips per 100 spaces	3 (2 in, 1 out)
Commercial / Retail	6	Parking spaces	50% arrive during peak hour	3 (2 in, 1 out)	50% leave during peak hour	3 (1 in, 2 out)
Existing site	19	Parking spaces	Surveyed ins and outs	5 (1 in, 4 out)	Surveyed ins and outs	4 (3 in, 1 out)
Net trips generated			**Future Total**	**2** (2 in, 0 out)	**Future Total**	**2** (0 in, 2 out)

* Existing spaces within the car park

5.4 Traffic Distribution

Traffic distribution profiles leaving and entering the development are shown in Figure 16 and Figure 17. These were based on existing JTW data discussed in Section 2.2 and the general location of the destination in relation to the site.

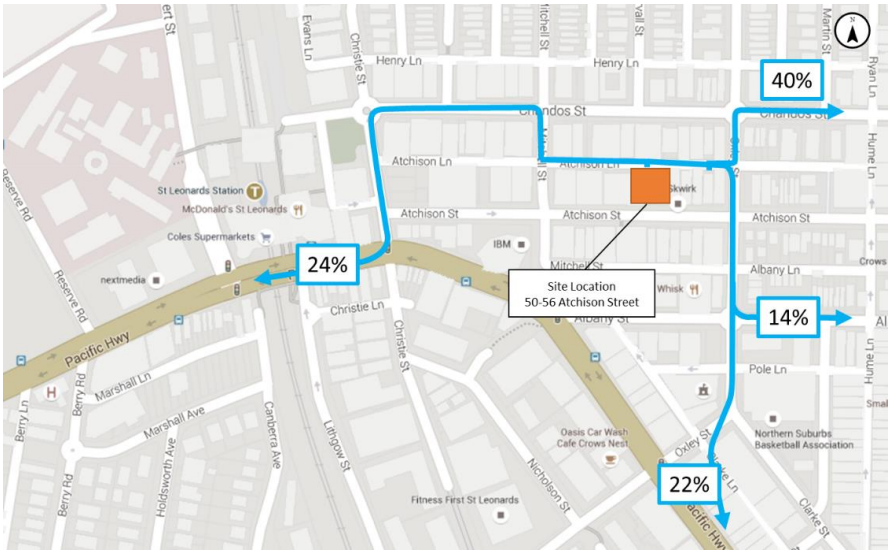


Figure 16: Trip distribution of vehicles leaving the site

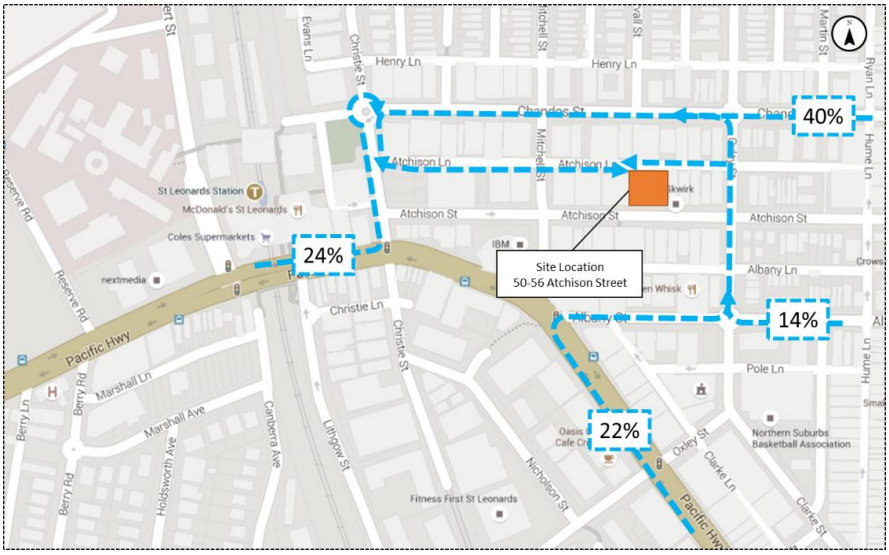


Figure 17: Trip distribution of vehicles entering the site

Based on the traffic distribution and the vehicle trip generation discussed in Section 5.3, the likely increase in traffic from the site is shown in Figure 18 and Figure 19.

Figure 18: Traffic increase from completion, leaving the site

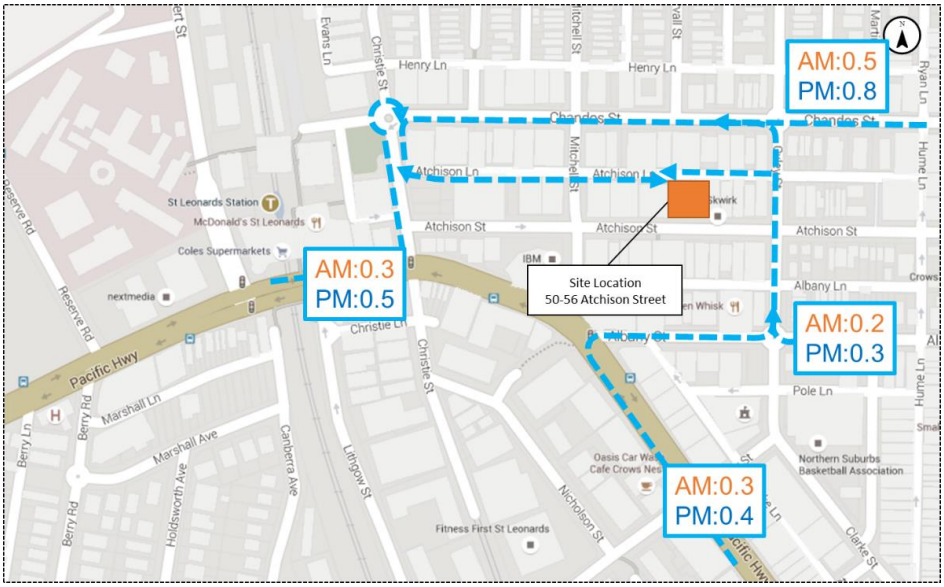


Figure 19: Traffic increase from completion, entering the site

The future estimated traffic generated from the site, after considering the discount in existing traffic (Section 2.4) is negligible during the peak periods. This estimate considers recent residential traffic generation rates and driveway surveys as well as conservative commercial/retail traffic generation assumptions.

In addition, given the proximity of the site to significant levels of employment in North Sydney, the estimated vehicle trip generation is considered to be conservative. Further, the opening of the Sydney Metro from 2024 which will increase the alternative transport options available to residents.

5.5 Road network impacts

It can be seen from the above sections that the development would generate a net increase of six and five vehicle trips per hour compared to existing conditions during AM and PM peak hours. The volumes during the AM and PM peak hours would equate to an additional vehicle trip being generated every 30 minutes and is considered to result in minimal impacts on the surrounding road network. As the development is not situated in proximity to any signalised intersections, intersection modelling is not considered warranted for this development application.

It should also be noted that the trip rates adopted in this analysis are conservative given the excellent access to public transport available within proximity to the site, which is likely to offset traffic generation for residents and employees further. In summary, the traffic impacts for the development are considered minimal.

6 Travel Demand Management

6.1 Green Travel Plan

A Green Travel Plan (GTP) is a tool to minimise the negative impact of private vehicle travel on the environment. The GTP is a package of measures put in place to encourage more sustainable travel, and describes ways in which the use of sustainable transport may be encouraged. Using public transport, cycling, walking, working from home, carpooling, making business vehicles more fuel efficient and the use alternative fuels are all more sustainable means of transport than single occupant driving.

More generally, the principles of a GTP are applied to all people travelling to and from a site. The main objectives of the GTP are to reduce the need to travel and promotion of sustainable means of transport.

The more specific objectives include:

- To reduce the level of single occupancy car borne trips associated with commuting.
- To facilitate the sustainable and safe travel of visitors to the site.
- To reduce site traffic congestion and associated pollution in order to enhance, improve and make safe journeys of minority/sustainable transport mode users.
- To work in partnership with neighbouring organisations/developments, local authorities, retailers and other relevant bodies in achieving the maximum mode shift away from the private car.
- To continually develop, implement, monitor, evaluate and review the progress of the travel plan strategy.
- To facilitate all residents' access to key facilities such as retail, leisure, health and education.

6.2 Green Travel Plan Measures

In order to meet the objectives and targets of a GTP, the following physical and management measures should be implemented in future design and planning of the site.

- Travel packs
- General marketing and promotion
- Car sharing
- Alternatives to travel during the day
- Cycling
- Public transport
- Walking
- Residents' and employee's travel plan group

7 Conclusion

This review has described the potential traffic and transport impacts of a redevelopment at 50-56 Atchison Street, St Leonards, in line with the Planning Proposal. Key findings of the review are as follows:

- The site is located within the current zoning of B4 Mixed Use, Precincts 2&3 of St Leonards;
- The indicative concept design identifies 32 off-street parking bays which is consistent with the current North Sydney Council DCP requirements. The final amount of parking is subject to detailed development application design;
- The site is located within 400m of various modes of St Leonards Station and bus stops, thus any future development is expected to not generate a large parking demand;
- The proposed servicing arrangements are considered acceptable on traffic grounds in the circumstances, for the reason discussed and provides an appropriate planning outcome;
- The traffic generation for the development has been assessed to be a net increase compared to existing conditions, with an additional 2 vehicles during both AM and PM peak hours. The volumes during the PM peak hours would equate to an additional vehicle trip being generated every 30 minutes and is considered to result in minimal impacts on the surrounding road network;
- Based on the traffic generation assumptions, the analysis indicates that the potential net increase in traffic is negligible and is not envisaged to affect the existing intersection performances adversely;
- Any future development in line with the Planning Proposal would be responsible for a small increase in peak hour traffic flows along surrounding key roads. Due to the small increase in development traffic, it is expected that surrounding key roads will continue to operate in the same way;
- Secure bicycle parking would be provided as a component of any future proposed development; and
- Travel demand management measures have also been suggested to improve the mode share of public transport and active transport. These items should be considered further at detailed design stage.

It is therefore concluded that the proposal is supportable on traffic and transport planning grounds and will operate satisfactorily.

Appendix A

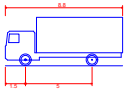
Swept path Analysis

A1

Legend

- Body Envelope
- 300mm Envelope
- 600mm Envelope
- Wheel Envelope

Design Vehicle(s)



MRV - Medium Rigid Vehicle

Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

Issue	Date	By	Chkd	Appd
C	15/02/18	LK	JF	JF

For Information

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Sydney, NSW, 2000
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www.arup.com.au

Client
KANNFINCH

Job Title
50-56 Atchison Street, St Leonards

Drawing Title
Swept Path Analysis
8.8m Medium Rigid Vehicle
Entry and Exit Movement
Turning Left on Atchison Lane

Scale at A3 1:250

Discipline Transport

Drawing Status **Draft**

Job No	Drawing No	Issue
259124-00	**SKT001**	**C**

Do not scale

Legend

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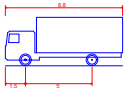
- 600mm Envelope
- Wheel Envelope

Design Vehicle(s)



MRV - Medium Rigid Vehicle

Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

Issue	Date	By	Chkd	Appd
C	15/02/18	LK	JF	JF

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Client
KANNFINCH

Job Title
50-56 Atchison Street, St Leonards

Drawing Title
Swept Path Analysis
8.8m Medium Rigid Vehicle
Entry and Exit Movement
Turning Right on Atchison Lane

Scale at A3 1:250

Discipline Transport

Drawing Status **Draft**

Job No	Drawing No	Issue
259124-00	**SKT002**	**C**

Do not scale

Legend

- Body Envelope
- 300mm Envelope
- 600mm Envelope
- Wheel Envelope

Design Vehicle(s)

B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

Issue	Date	By	Chkd	Appd
A	15/02/18	LK	JF	JF
For Information				

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Client
KANNFINCH

Job Title
50-56 Atchison Street, St Leonards

Drawing Title
Swept Path Analysis
B99 Vehicle
Entry and Exit Movement

Scale at A3
1:250

Discipline
Transport

Drawing Status
Draft

Job No	Drawing No	Issue
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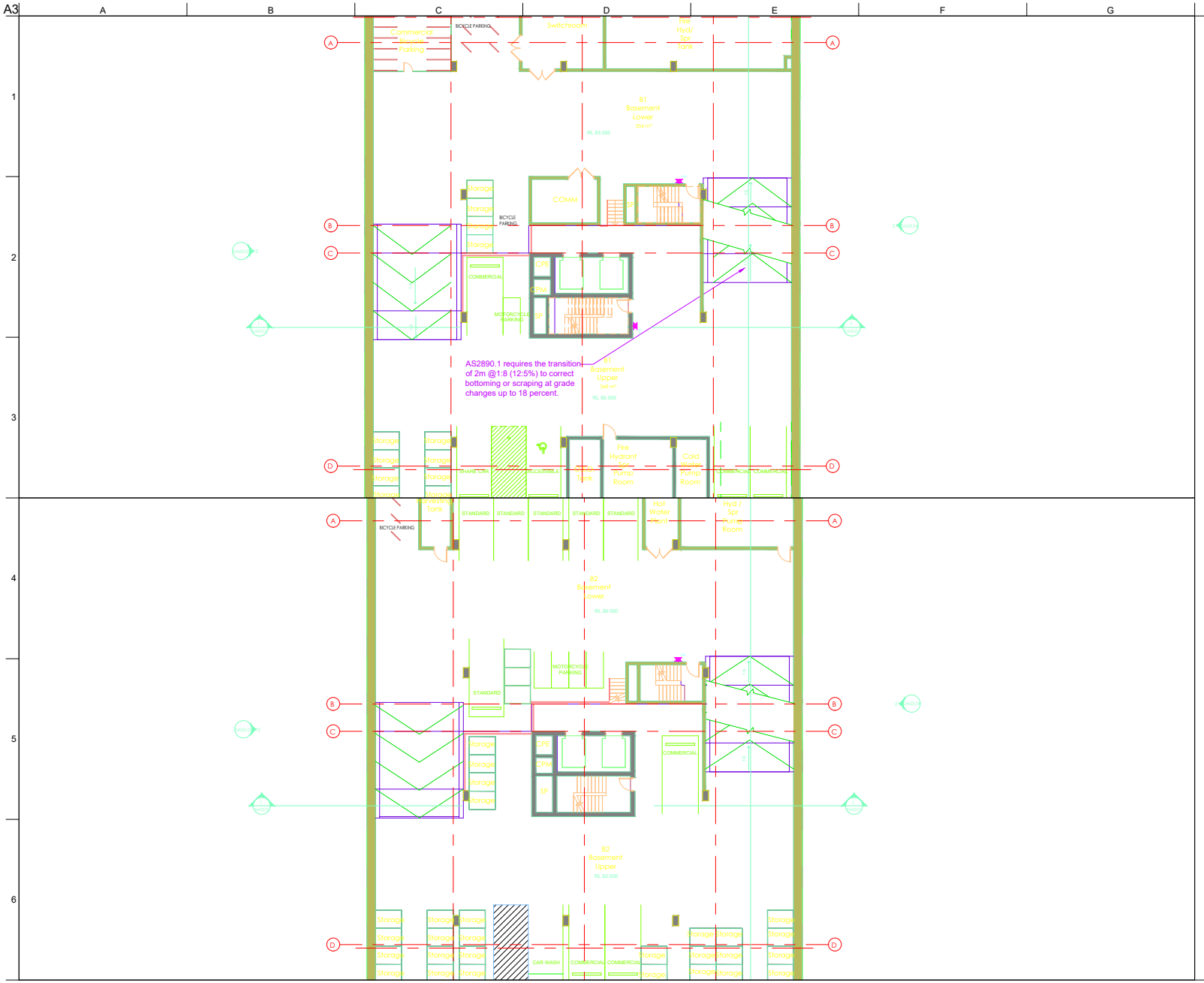

Legend

- Body Envelope
- 300mm Envelope
- 600mm Envelope
- Wheel Envelope

Design Vehicle(s)

B99 Vehicle (Realistic min radius) (2004)

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Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

Issue	Date	By	Chkd	Appd
C	15/02/18	LK	JF	JF
For Information				

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Client
KANNFINCH

Job Title
50-56 Atchison Street, St Leonards

Drawing Title
Swept Path Analysis
Comments

Scale at A3
1:250

Discipline
Transport

Drawing Status
Draft

Job No	Drawing No	Issue
259124-00	**SKT004**	**C**

Do not scale

50-56 Atchison Street, St Leonards NSW

Mixed Use Development

OPERATIONAL WASTE MANAGEMENT PLAN

23/02/2018
Revision D

Client

Epic Leisure Pty Ltd

Architect

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SCOPE

This waste management plan (WMP) only applies to the **operational** phase of the proposed development; therefore the requirements outlined in this WMP must be implemented during the operational phase of the site and may be subject to review upon further expansion for, and/or changes to the development.

The waste management of the **construction** and **demolition** phases of the development are not addressed in this report. It is EFRS's understanding that a construction and demolition WMP will be completed by a separate party appointed by the developer, and submitted separately to this report. Typically, the head contractor of the site will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements.

REVISION REFERENCE

Revision	Date	Prepared by	Reviewed by	Description
A	6/12/2017	A Armstrong	N Beattie	DRAFT
B	14/02/2018	J Parker	A Armstrong	AMENDMENT
C	15/02/2018	J Parker	A Armstrong	AMENDMENT
D	23/02/2018	A Armstrong	N Beattie	FINAL

TABLE OF CONTENTS

GLOSSARY OF TERMS

TERM	DESCRIPTION
Baler	A device that compresses waste into a mould to form bales which may be self-supporting or retained in shape by strapping
Chute	A ventilated, vertical pipe passing from floor to floor of a building with openings as required to connect with hoppers and normally terminating at its lower end at the roof of the central waste room(s)
Chute Discharge	The point at which refuse exits from the refuse chute
Chute Discharge Room	A secure, enclosed area or room housing the discharge and associated equipment for the refuse chute
Collection Area/Point	The identified position or area where garbage or recyclables are actually loaded onto the collection vehicle
Compactor	A machine for compressing waste into disposable or reusable containers
Composter	A container/machine used for composting specific food scraps
Crate	A plastic box used for the collection of recyclable materials
Garbage	All domestic waste (Except recyclables and green waste)
Green Waste	All vegetated organic material such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers
Hopper	A fitting into which waste is placed and from which it passes into a chute or directly into a waste container. It consists of a fixed frame and hood unit (the frame) and a hinged or pivoted combined door and receiving unit
L	Litre(s)
Liquid Waste	Non-hazardous liquid waste generated by commercial premises that is supposed to be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste)
LRV	Large rigid vehicle described by AS 2890.2-2002 Parking facilities – Off-street commercial vehicle facilities as heavy rigid vehicle (HRV)
Mobile Garbage Bin(s) (MGB)	A waste container generally constructed of plastic with wheels with a capacity in litres of 120, 240, 360, 660, 1000 or 1100
MRV	Medium rigid vehicle
Putrescible Waste	Component of the waste stream liable to become putrid. Usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal and organic products.
Recycling	Glass bottles and jars – PET, HDPE and PVC plastics; aluminium aerosol and steel cans; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines

Refuse	Material generated and discarded from residential and commercial buildings including general waste, recyclables, green waste and bulky items
SRV	Small rigid vehicle as in AS 2890.2-2002 Parking facilities – Off-street commercial vehicle facilities, generally incorporating a body width of 2.33

LIST OF TABLES

INTRODUCTION

EFRS has been tasked to prepare the following waste management plan for Kann Finch Group Pty Ltd for the operational management of waste generated by the mixed use development located at 50-56 Atchison Street, St Leonards NSW.

Waste management strategies and auditing are a requirement for new developments to provide support for the building design, and promote strong sustainability outcomes for the building. It is EFRS's belief that a successful waste management strategy contains three key objectives:

i. ***Promote responsible source separation*** to reduce the amount of waste that goes to landfill, by implementing convenient and efficient waste management systems

ii. ***Ensure adequate waste provisions and robust procedures*** that will cater for potential changes during the operational phase of the development

iii. ***Compliance*** with all relevant council codes, policies, and guidelines.

To achieve these objectives, this WMP identifies the different waste streams likely to be generated during the operational phase of the development. Associated information includes: how the waste will be handled and disposed of, details of bin sizes/quantities and waste rooms, descriptions of the proposed waste management equipment used and information on waste collection points and frequencies.

DEVELOPMENT SUMMARY

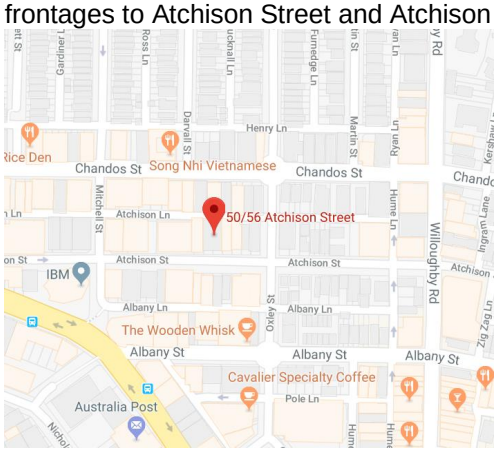
The proposed development falls under the LGA of North Sydney Council, and consists of:

- One (1) 17-level building incorporating:
  - 65 residential units in total;
  - 4 retail units with a total GFA of 615m^2; &
  - 2 commercial units with a total GFA of 1617m^2.

All figures and calculations are based on area schedules as advised by our client and shown on architectural drawings.

SITE LOCATION

The site located is 50-56 Atchison Street, St Leonards, as shown in Figure.1. The site has frontages to Atchison Street and Atchison Lane, with vehicle access via Atchison Lane.



NORTH SYDNEY COUNCIL

The residential garbage and recycling will be guided by the services and acceptance criteria of the North Sydney Council. All waste facilities and equipment are to be designed and constructed to be in compliance with the North Sydney Council's *North Sydney Development Control Plan 2013,* Australian Standards and statutory requirements.

COUNCIL OBJECTIVES

- Reduce the demand for waste disposal.
- Maximise reuse and recycling of building and construction materials, as well as household, industrial and commercial waste.
- Assist in achieving Federal and State Government waste minimisation targets in accordance with regional waste plans.
- Minimise the overall environmental impacts of waste.
- Require source separation, design and location standards which complement waste collection and management services offered by Council and private providers.
- Encourage building design and construction techniques which will minimise future waste generation.

COUNCIL REQUIREMENTS

Access – Ensure waste systems are easy to use and collection vehicles are able to access buildings to safely remove waste and recycling;

Safety – Ensure safe practises for storage, handling and collection of waste and recycling;

Pollution Prevention – Prevent stormwater pollution that may occur as a result of poor waste storage and management practises;

Noise Minimisation – Provide acoustic insulation to the waste service facilities or residential units adjacent to or above chutes, waste storage facilities, chute discharge, waste compaction equipment and waste collection vehicle access points;

Ecologically Sustainable Development (ESD) – Promote the principles of ESD through resource recovery and recycling leading to a reduction in the consumption of finite natural resources;

Hygiene – Ensure health and amenity for residents, visitors and workers in the City of Canterbury

STAKEHOLDER ROLES AND RESPONSIBILITIES

The following table demonstrates the primary roles and responsibilities of the respective stakeholders:

Table 1: Stakeholder Roles and Responsibilities

Roles	Responsibilities
Strata/Management	• Ensuring that all waste service providers submit monthly reports on all equipment movements and waste quantities/weights; • Organising internal waste audits/visual assessments on a regular basis; and • Manage any non-compliances/complaints reported through waste audits.
Building Manager/Waste Caretaker	• Ensuring effective signage, communication and education is provided to occupants, tenants and cleaners; • Providing staff/contractors with equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management activities; • Ensuring site safety for residents, children, visitors, staff and contractors; • Abiding by all relevant OH&S legislation, regulations, and guidelines; • Assessing any manual handling risks and prepare a manual handling control plan for waste and bin transfers; • Preventing storm water pollution by taking necessary precautions (securing bin rooms, preventing overfilling of bins) • General maintenance and cleaning of chute doors on each level; • Cleaning and transporting of bins as required; • Organising, maintaining and cleaning the general and recycled waste holding area; • Organising both garbage and recycled waste pick-ups as required; • Organising replacement or maintenance requirements for bins; • Organising bulky goods collection when required; and • Investigating and ensuring prompt clean-up of illegally dumped waste materials.
Residents/Tenants	• Dispose of all garbage and recycling in the allocated waste chutes and/or MGBs provided; • Ensure adequate separation of garbage and recycling; and • Compliance with the provisions of Council and the WMP.
Council/Private Waste Contractor	• Provide a reliable and appropriate waste collection service; • Provide feedback to building managers/residents in regards to contamination of recyclables; and • Work with building managers to customise waste systems where possible.
Gardening/Landscaping Contractor	• Removal of all garden organic waste generated during gardening maintenance activities for recycling at an offsite location.
Building Contractors	• Removing all construction related waste offsite in a manner that meets all authority requirements.

EDUCATION

Educational material encouraging correct separation of garbage and recycling items must be provided to each resident by building management to ensure correct use of the waste chute. This should include the correct disposal process for bulky goods (old furniture, large discarded items, etc.), and other appropriate materials (electronic, chemical waste, etc.). It is recommended that information is provided in multiple languages to support correct practises and minimise the possibility of chute blockages as well as contamination in the collective waste bins.

It is also recommended that the owners' corporation website contain information for residents to refer to regarding use of the chute. Information should include:

- Directions on using the chute doors;
- Recycling and garbage descriptions (council provides comprehensive information);
- How to dispose of bulky goods and any other items that are not garbage or recycling;
- Residents' obligations to whs and building management; and
- How to prevent damage or blockages to the chute (example below).

To prevent damage or blockage to rubbish chute DO NOT dispose of any newspapers, umbrellas, bedding, cigarettes, cartons, coat hangers, brooms, mops, large plastic wrappings from furniture, white goods, any sharp objects, hot liquid or ashes, oil, unwrapped vacuum dust, syringes, paint and solvents, car parts, bike parts, chemicals, corrosive and flammable items, soil, timber, bricks or other building materials, furniture, etc. down the chute.

LIMITATIONS

The purpose of this report is to document a Waste Management Plan (WMP) as part of a development application and is supplied by Elephants Foot Recycling Solutions (EFRS) with the following limitations:

- Council are subject to changing waste and recycling policies and requirements at their own discretion. Information in this operational waste management plan is correct as of June 2017.
- The works agreed to in the fee proposal includes a review of the waste management plans and up to three amendments. Any revisions subsequent to the third amendments will be charged at an hourly rate.
- Drawings, estimates and information contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by the client, and third parties including Council and government information. The assumptions based on the information contained in the WMP is outside the control of EFRS;
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building managements approach to educating residents and tenants regarding waste management operations and responsibilities;
- The building manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;
- The report has been prepared with all due care however no assurance or representation is made that the WMP reflects the actual outcome and EFRS will not be liable to you for plans or outcomes that are not suitable for your purpose, whether as a result of incorrect or unsuitable information or otherwise;

- EFRS offer no warranty or representation of accuracy or reliability of the WMP unless specifically stated;
- Any manual handling equipment recommended should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply;
- Design of waste management chute equipment and systems must be approved by the supplier.

RESIDENTIAL WASTE MANAGEMENT

The *North Sydney Development Control Plan 2013* has been referenced to calculate the total number of bins required for the residential units. Calculations are based on generic figures; waste generation rates may differ according to the residents' waste management practice.

ESTIMATED WASTE VOLUMES AND PROVISIONS

The following table shows the estimated volume (L) of garbage and recycling generated by the residential component of the development.

Table 2: Calculated Waste Generation – Residential

Building/ Core	# Units	Garbage Generation Rate (L/unit/week)	Generated Garbage (L/week)	Recycling Generation Rate (L/unit/week)	Generated Recycling (L/week)
Core A	65	60	3900	60	3900
TOTAL	**65**		**3900**		**3900**
Collections & Equipment		Garbage Bin Size (L)	660	Recycling Bin Size (L)	240
		Garbage Bins per Week	6	Recycling Bins per Week	17
		Garbage Collections per Week	1	Recycling Collections per Week	1
		Equipment (if any)	*Linear Tracks for Garbage*		
		Discharge and Storage Room	*Recommended Waste Room 35msqr*		

**Note: An additional 660L MGB should be provided for each chute discharge for use during collection periods. These bins are not included in the above figures.*

HOUSEHOLD WASTE

One (1) garbage chute will be installed with access provided on all residential levels. The chutes are to be used for the disposal of garbage only.

Garbage discharges into 660L MGBs placed on linear tracks and is not compacted. The discharge is located in the waste discharge room on the ground level.

240L recycling bins will be situated in the waste compartment on each residential level for collection of recyclable items. The caretaker/cleaner's duty is responsible for monitoring the capacity of recycling bins and exchanging, emptying or storing them in the main residential bin holding room located on the ground level when required

On collection days, full garbage and recycling bins will be transferred to the bin holding room on the ground level to await for Council servicing.

COMMON AREAS

The lobbies, amenities and circulation areas will be supplied with suitably branded waste and recycling bins where considered appropriate. These areas generate minimal waste, however garbage and recycling receptacles should be provided and located in convenient locations.

Washroom facilities should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

SOURCE SEPERATION

Waste avoidance, recovery and reuse of discarded materials and responsible management of hazardous waste are all crucial elements of sustainable development. Effective waste management practices in residential developments significantly improve environmental, social, and economic outcomes on both a local and regional scale, and should be integrated into the waste management processes.

GENERAL WASTE (GARBAGE)

Residents will be supplied with a collection area in each unit to deposit garbage and collect recyclable material suitable for one day's storage. This is typically located generally in the kitchen, under bench or similar alternate area. Residents should wrap or bag their garbage; bagged garbage should not exceed 3kg in weight or 35cm x 35cm x 35cm in dimension.

RECYCLING

Recycling must not be bagged. It is recommended that residents use a crate or dedicated bin for collecting recyclables within the allocated residential space provided to ensure correct separation.

Cardboard furniture boxes or large cardboard containers should not be included in the garbage chute – a cardboard collection bin will be made available to residents to deposit flattened cardboard and will be managed by the waste caretaker. Residents should be advised of the location of these bins by building management.

GREEN WASTE

Green waste is not typically generated from multi-unit dwellings other than from surrounding building landscaped areas and is removed by the designated maintenance contractor. In the event that green waste is produced i.e trimming of indoor or balcony plants then this may be disposed of via coordination with the building caretaker or cleaner. Very small quantities may be disposed of via the general waste stream.

BULKY GOODS

A room or caged area will be made available for the storage of discarded residential bulky items (e.g. whitegoods, furniture, etc.). This room should be located within close proximity of the garbage and recycling bin collection room and must have a minimum doorway width of 1.5m to allow for easy movement of large waste items in and out of the room.

These areas are crucial to prevent residents from illegally dumping bulky waste on the footpath outside Councils scheduled collection times. Regular illegal dumping can attract other dumped waste, generate litter, detract significantly from the quality and appearance of the development and reduce amenity of the street.

Residents will be required to liaise with building management regarding the transportation and disposal of bulky goods. Ideally, bulky waste should be collected on a regular schedule so that the storage area does not become overfull and so that residents know when to place items in there for collection. Councils may arrange for more frequent collections of bulky waste for MUDs, however collection frequencies vary among different local government areas.

Donations to charitable organisations should be encouraged. Clean, sound furniture and household goods etc. are highly sought after to provide for the disadvantaged. Donations can be arranged with the assistance of the building manager/waste caretaker.

ELECTRONIC WASTE

Electrical waste (e.g. fluorescent tubing, batteries, laptops etc.) can potentially contaminate soil and surrounding water bodies if not disposed correctly. These items must not be placed in standard garbage and recycling bins. Disposal or recycling of electronic waste will be organised with the assistance of the building caretaker. These items must not be placed in garbage or recycling bins due to safety and environmental factors. Residents and/or the building manager may choose to contact Council to find out about new/existing strategies for the disposal/collection of electronic waste.

CHEMICAL WASTE

Chemical wastes (e.g. cleaning chemicals, paints, oils solvents) pose detrimental effects to human health and the environment and should be disposed of to a suitable licensed disposal facility. No liquid wastes or wash down waters should be disposed of via the storm water drainage system. Household Chemical CleanOut events are held at various locations throughout NSW on specified dates throughout the year. Locations and dates are subject to change; hence it is recommended that the building caretaker confirm these details with their local Council.

ORGANIC WASTE AND COMPOSTING

Recycling organic waste, such as food scraps and garden materials, dramatically reduces the quantity of waste being diverted to land fill and thus reduces residents' ecological footprint. Compost material can also be returned to the soil as a rich fertilizer and improve plant growth and the overall health of surrounding vegetation. It is recommended that a space for composting and worm farming is made available for all residents in a communal facility or in small private courtyards (*see APPENDIX D.1*). Composting facilities are to be sited on an unpaved area with soil depth of at least 300mm. Residents may also choose to purchase and install apartment style compost bin where practical and self-manage these systems (*see APPENDIX D.2 and APPENDIX D.3)*.

PUBLIC SPACES

Public spaces are likely to generate minimal waste from the people utilizing these areas. Waste and recycling bins should be place throughout public spaces to minimise the likelihood of littering.

Areas allocated to outdoor public space will be managed by Council, unless another type of arrangement has been agreed with by Council. Public waste bins placed in outdoor public areas will be serviced and maintained by Council.

Public areas on commercial developments such as food courts will be managed by building management. Cleaners will circulate throughout the food court while clearing tables and will remove waste as required.

CLOTHING WASTE

Clothing is becoming an increasingly large waste stream for domestic dwellings. Unwanted clothing that is clean and undamaged can be donated to charities. Building management may choose to provide clothing donation bins for residents to donate their unwanted clothing. Building management can directly contact a charity to supply a donation bin or choose to provide their own nondenominational donation bin. Once a sufficient amount of clothing has been collected, the building management will be responsible for arranging the collection of donated items with the relevant charity.

COMMERCIAL/RETAIL WASTE MANAGEMENT

The *Better Practice Guide for Waste Management and Recycling* has been referenced to calculate the total number of bins required for the retail and commercial areas. Calculations are based on generic figures; waste generation rates may differ according to the tenants' waste management practice.

ESTIMATED WASTE VOLUMES AND PROVISIONS

The following table shows the estimated volume (L) of garbage and recycling generated by the commercial/retail component of the development. A seven day operating week has been assumed.

Table 3: Calculated Waste Generation – Commercial/Retail

Tenancy	Type	NLA (m^2)	Garbage Generation Rate (L/100m^2/day)	Generated Garbage (L/week)	Recycling Generation Rate (L/100m^2/day)	Generated Recycling (L/week)
Commercial L1	Office	812	10	568.4	10	568.4
Commercial L2	Office	805	10	563.5	10	563.5
Retail GF	Food	74	80	414.4	135	699.3
Retail GF	Restaurant	96	670	4502.4	135	907.2
Retail GF	Non-Food (<100m^2)	68	50	238	25	119
Retail Mez.	Non-Food (>100m^2)	377	50	1319.5	50	1319.5
	TOTAL	**2232**		**7606.2**		**4176.9**
Collections & Equipment		Bin Size (L)		1100	Bin Size (L)	1100
		Collections per Week		3	Collections per Week	1
		No Bins Required		2	No Bins Required	4
Waste Rooms		Equipment		No equipment required		
		Storage Room		Recommended room size 17msqr		

COMMERCIAL WASTE MANAGEMENT

Typically, bins for paper or general waste are positioned next to each workers desk or work station. One or both of these bins are emptied by contract cleaners. The cleaners circulate around the workplace after normal office hours and also perform other cleaning tasks, generally vacuuming and cleaning toilets. Bins for general waste and recyclables are also located centrally in each office, generally in the kitchen area and printer room.

Cleaners empty the bins into bags which they transport around the office/s in a cart which is also used to store cleaning products, spare bags, PPE and consumables.

Bags of garbage and/or recycling are placed in a central location by the cleaners (often outside the goods lift/s) and transported to the collection bins by another cleaner.

RETAIL WASTE MANAGEMENT

Tenants will be responsible for their own storage of garbage and recycling back of house (BOH).

Food handling for food cooked or prepared, served and consumed on site will produce a typical waste composition of food scraps from plates, packaging waste and some plastics. Café or restaurant staff will be responsible for their own BOH waste management.

Cardboard is a major component of the waste generated by cafes/restaurants. All cardboard should be flattened (to save bin space), placed in and collected from bulk bins. Whilst cardboard is bulky, it is generally lightweight however it can be contaminated with food or liquid which makes it unsuitable for recycling.

On completion of each trading day or as required, nominated retail staff/cleaners will transport their garbage and recycling to the retail waste room on the ground level and place garbage and recycling into the appropriate collection bins.

To ensure the proper management and disposal of waste, tenants must be made aware of the following practices:

- All garbage should be bagged and garbage bins should be plastic lined;
- Bagging of recyclables is not permitted;
- All interim waste storage is located BOH during operations;
- Individual recycling programs are recommended for retailers to ensure commingled recycling is correctly separated;
- Any food and beverage tenant will make arrangements for storing used and unused cooking oil in a bunded storage area;
- The operator will organise grease interceptor trap servicing;
- A suitable storage area needs to be provided and effectively bunded for chemicals, pesticides and cleaning products;
- Dry basket arrestors need to be provided to the floor wastes in the food preparation and waste storage areas; and
- All flattened cardboard will be collected and removed to the waste room recycling MGB

Note: It is the responsibility of the building manager to monitor the number of bins required for the development. As waste volumes may change according to the development's management, customer base and retail tenancy attitudes to waste disposal and recycling, bin numbers and sizes may need to be altered to suit the building operation. Seasonal peak periods i.e. public and school holidays should also be considered.

COMMON AREAS

Any staff tea points will be supplied with a dedicated commingled MGB for the collection of all recyclable glass, aluminium, steel and plastic items. Staff will be responsible for sorting this material and allocating recyclables into the correct collection facility.

Washroom facilities should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

WASTE OILS

Consideration should be given to the use of cooking oil collection systems. A single service provider may be used to reduce the amount of commercial traffic into the loading bay or around the precinct area. This should be measured against bulk delivery of oils where the same vehicle is used to remove containers of waste cooking oils (see APPENDIX x for Typical Cooking Oil Collection System)

OTHER WASTE STREAMS

Tenants are required make arrangements for the disposal and recycling of specialised waste (toner cartridges, batteries, etc.). Disposal of hard, electronic, liquid waste and any detox (paint/chemicals) can be organised with the assistance of the building management/cleaners.

MOVEMENT AND TRANSPORTATION OF BINS

The building manager/waste caretaker is responsible for the transportation of bins from their designated operational locations to their respective collection room/areas prior to scheduled collection times, and returning them once emptied to resume operational use.

Transfer of waste and all bin movements require minimal manual handling; the operator must assess manual handling risks and provide any relevant documentation to building management.

If required the developer should contact a bin-tug, trailer or tractor consultant to provide equipment recommendations. Examples of motorised bin moving equipment can be found in APPENDIX B.4 and APPENDIX B.5.

Bins may have to be fitted with hitches to enable the simultaneous transportation of multiple bins to the collection area. Council must be informed of any hitch attachments required to be installed on bins.

COLLECTION OF WASTE

RESIDENTIAL

The Council collection vehicle will pull up on Atchison Lane adjacent to the bin holding room/area and service all bins via a wheel-in/wheel-out arrangement.

RETAIL/COMMERCIAL

A private waste contractor will be engaged to service all bins to an agreed collection schedule.

The collection vehicle will reverse into the vehicle loading bay via Atchison Lane and service all bins directly from the commercial/retail waste room.

COLLECTION AREA

The collection area has been reviewed by a traffic consultant to confirm the swept paths for waste collections, access and egress, internal manoeuvring to assume parked position for loading and to exit, load requirements as well as collection vehicle. The final number of truck movements will depend on management of waste contract; final configuration of waste and recycling arrangements therefore number of bin lifts and additional irregular truck movements for hard waste.

INSTALLATION EQUIPMENT AND DESIGN

EQUIPMENT SUMMARY

Table 4: Equipment Summary

Component	Part	Qty	Notes
Chutes	Galvanised Steel / LLDPE Polyethylene Plastic 510mm or 610mm (for 20+ levels)	1	510/610mm diameter (See APPENDIX C for Typical Chute Section)
Equipment A	Garbage 2-bin 660L MGB Linear Track System	1	(See APPENDIX C.2 for Typical Linear System)
Equipment B	Suitable Bin Moving Equipment	1	Optional (See APPENDIX D for Typical Bin Mover)

WASTE ROOM AREAS

All waste discharge points should be caged off to ensure the safety of any personnel accessing the waste room. Access to waste discharge rooms should be provided to the building manager/waste caretaker **only**. Under no circumstances should access be provided to any residents, or waste collection staff.

Chute discharge requires a minimum of 3000mm distance from floor to ceiling and needs to be free of service pipes and other overhead obstacles within the immediate space around the chute discharge.

The areas allocated for residential waste rooms, commercial/retail bin store, bulky goods and collection areas are detailed in Table 5 below. The areas provided have been assessed by EFRS and deemed suitable for purpose.

Table 5: Waste Room Areas

Level	Waste Room Type	Equipment	Allocated Area (m^2)
G	Waste Discharge Room	6 x 660L MGBs 2-bin 660L MGB Linear Track	18
G	Hard Standing/Collection Area	6 x 660L MGBs 17 x 240L MGBs	25
G	Bulky Goods Waste Storage Room		$4m^2$
G	Retail/Commercial Waste Room	5 x 1100L MGBs	17

Note: Any requirement for increasing storage capacity can be done by increasing the frequency of collections for all waste.

GARBAGE ROOMS

CONSTRUCTION REQUIREMENTS

The garbage room will be required to contain the following facilities to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- Waste room floor to be sealed with a two pack epoxy;
- Waste room walls and floor surface is flat and even;
- All corners coved and sealed 100mm up, this is to eliminate build-up of dirt;
- For residential: a hot and cold water facility with mixing facility and hose cock must be provided for washing the bins;
- For retail/commercial: a cold water facility with hose cock must be provided for washing the bins;
- Any waste water discharge from bin washing must be drained to sewer in accordance with the relevant water board. (Sydney water);
- Tap height of 1.6m;
- Storm water access preventatives (grate);
- All walls painted with light colour and washable paint;
- Equipment electric outlets to be installed 1700mm above floor levels;
- The room must be mechanically ventilated;
- Light switch installed at height of 1.6m;
- Waste rooms must be well lit (sensor lighting recommended);
- Optional automatic odour and pest control system installed to eliminate all pest types and assist with odour reduction – this process generally takes place at building handover – building management make the decision to install;
- If 660l or 1100l bins are utilised, 2 x 820mm (minimum) door leafs must be used;
- All personnel doors are hinged, lockable and self-closing;
- Waste collection area must hold all bins – bin movements should be with ease of access;
- Conform to the building code of Australia, Australian standards and local laws; and
- Childproofing and public/operator safety shall be assessed and ensured

SIGNAGE

The building manager/caretaker is responsible for waste room signage including safety signage (*see APPENDIX B.2*). Appropriate signage must be prominently displayed on doors, walls and above all bins, clearly stating what type of waste or recyclables is to be placed in the bin underneath.

All chute doors on all residential levels will be labelled with signs directing chute operations and use of chute door.

VENTILATION

Waste and recycling rooms must have their own exhaust ventilation system either;

- Mechanically - exhausting at a rate of 5L/m² floor area, with a minimum rate of 100L/s minimum; or
- Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area

Mechanical exhaust systems shall comply with AS1668 and not cause any inconvenience, noise or odour problem.

USEFUL CONTACTS

Elephants Foot Recycling Solutions does not warrant or make representation for goods or services provided by suppliers.

North Sydney Council Customer Service
Phone: (02) 9330 6400 Email: council@northsydney.nsw.gov.au

SULO MGB (MGB, Public Place Bins, Tugs and Bin Hitches)
Phone: 1300 364 388

CLOSED LOOP (Organic Dehydrator)=
Phone: 02 9339 9801

ELECTRODRIVE (Bin Mover)
Phone: 1800 333 002 Email: sales@electrodrive.com.au

RUD (Public Place Bins, Recycling Bins)
Phone: 07 3712 8000 Email: Info@rud.com.au

CAPITAL CITY WASTE SERVICES (Private Waste Services Provider)
Phone: 02 9359 9999

REMONDIS (Private Waste Services Provider)
Phone: 13 73 73

SITA ENVIRONMENTAL (Private Waste Services Provider)
Phone: 13 13 35

NATIONAL ASSOCIATION OF CHARITABLE RECYCLING ORGANISATIONS INC. (NACRO)
Phone: 03 9429 9884 Email: information@nacro.org.au

PURIFYING SOLUTIONS (Odour Control)
Phone: 1300 636 877 Email: sales@purifyingsolutions.com.au

MOVEXX (Bin Movers)
Phone: 1300 763 444

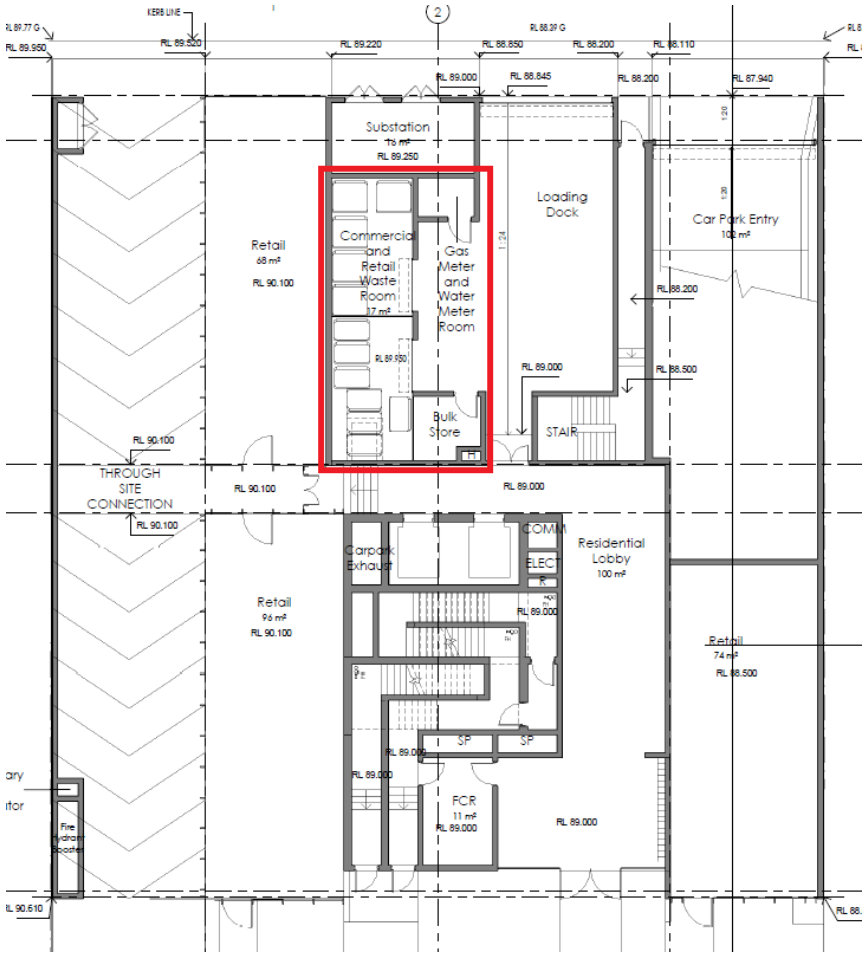
AUSCOL (Recyling Oils & Animal Fats)
Phone: 1800 629 476

Elephants Foot Recycling Solutions (Chutes, Compactors and eDiverter Systems)
44 – 46 Gibson Avenue
Padstow NSW 2211
Free call: 1800 025 073 Email: natalie@elephantsfoot.com.au

APPENDICES

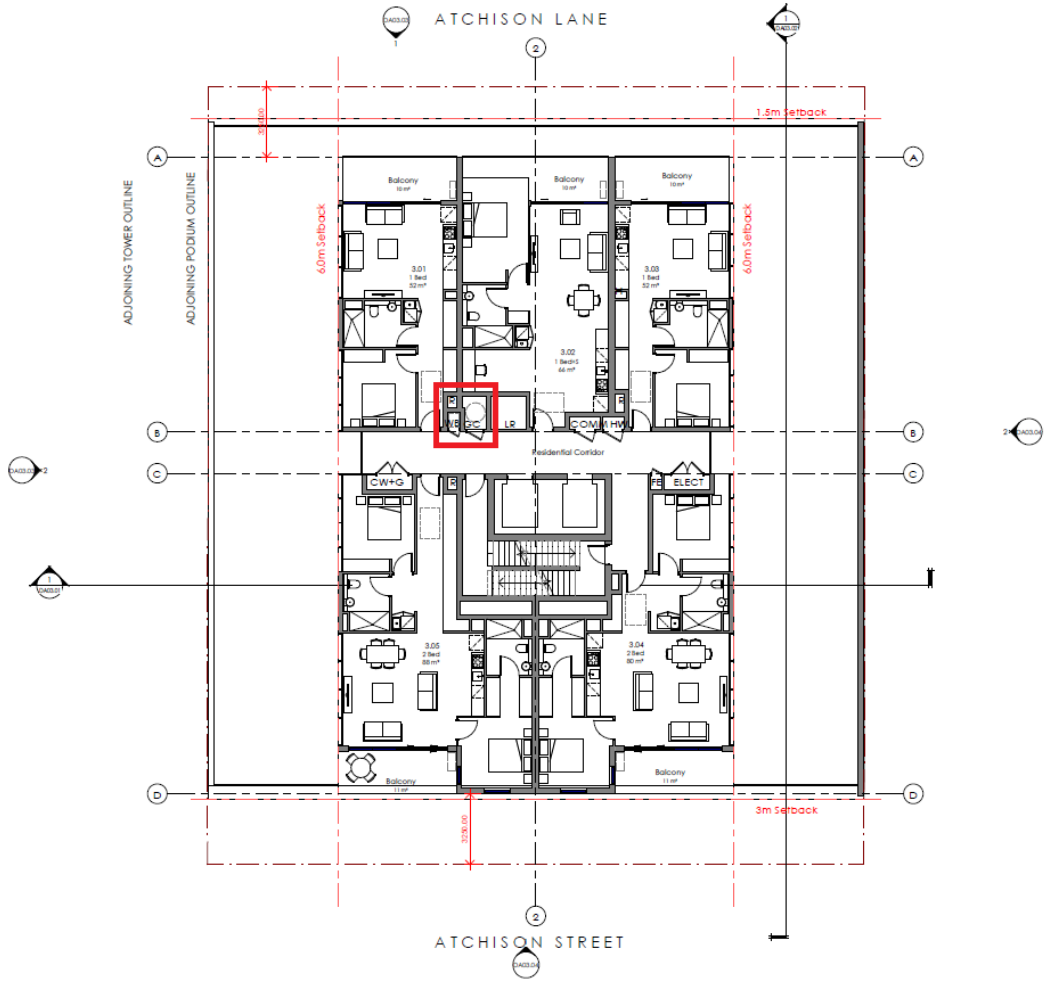
APPENDIX A ARCHITECTURAL DRAWING EXERPTS

APPENDIX A.1 GROUND LEVEL DISPLAYING WASTE ROOMS



Source: Kann Finch Group, Drawing No. DA02.05, RevJ, 09/02/17 – Ground Floor Plan

APPENDIX A.2 TYPICAL LEVEL DISPLAYING CHUTE LOCATIONS



Source: Kann Finch Group, Drawing No. DA02.09, RevH, 09/02/17 – Level 3

APPENDIX B PRIMARY WASTE MANAGEMENT PROVISIONS

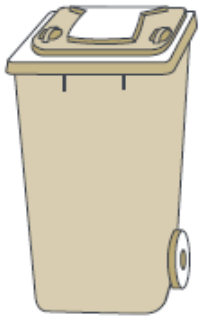
APPENDIX B.1 TYPICAL BIN SPECIFICATIONS

Mobile garbage bins (MGBs)

MGBs with capacities up to 1700L should comply with the Australian Standard for Mobile Waste Containers (AS 4123). AS 4123 specifies standard sizes and sets out the colour designations for bodies and lids of mobile waste containers that relate to the type of materials they will be used for.

Indicative sizes only for common MGB sizes are provided below. Note that not all MGB sizes are shown; the dimensions are only a guide and differ slightly according to manufacturer, if bins have flat or dome lids and are used with different lifting devices. Refer to AS 4123 for further detail.

Mobile containers with a capacity from 80L to 360L with two wheels



Bin Type	80 Litre MGB	120 Litre MGB	140 Litre MGB	240 Litre MGB	360 Litre MGB
Height	870 mm	940 mm	1065 mm	1080 mm	1100 mm
Depth	530 mm	560 mm	540 mm	735 mm	885 mm
Width	450 mm	485 mm	500 mm	580 mm	600 mm

Mobile containers with a capacity from 500L to 1700L with four wheels

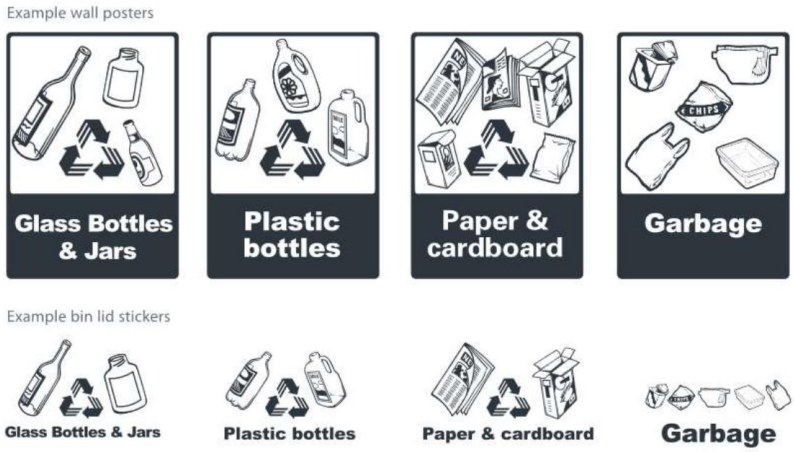
Dome or flat lid containers

Bin Type	660 Litre MGB	770 Litre MGB	1100 Litre MGB	1300 Litre MGB	1700 Litre MGB
Height	1250	1425	1470	1480	1470
Depth	850	1100	1245	1250	1250
Width	1370	1370	1370	1770	1770

APPENDIX B.2 SIGNAGE FOR WASTE & RECYCLING BINS

WASTE SIGNS

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the Department of Environment and Heritage.



SAFETY SIGNS

The design and use of safety signs for waste rooms and enclosures should comply with AS1319 Safety Signs for Occupational Environment. Safety signs should be used to regulate and control safety behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Each development will need to decide which signs are relevant for its set of circumstances and service provided.

SOURCE: Department of Environment and Climate Change NSW 2008, Better Practice Guide for Waste Management in Multi-Unit Dwellings

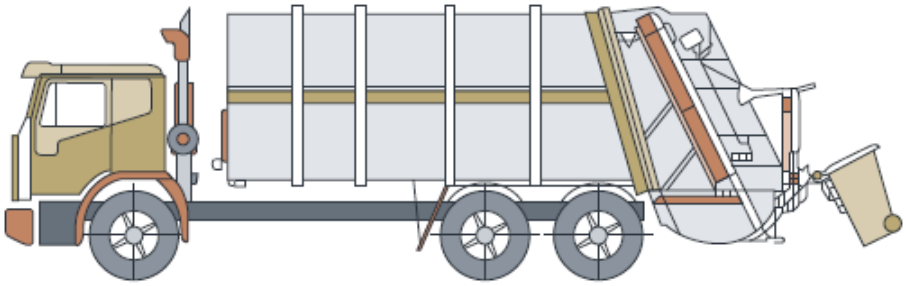
APPENDIX B.3 TYPICAL COLLECTION VEHICLE INFORMATION

Collection vehicles

Waste collection vehicles may be side loading, rear-end loading, front-end loading or crane trucks. The size of vehicle varies according to the collection service. Thus it is impossible to specify what constitutes the definitive garbage vehicle. Developers should consult the local council and/or relevant contractors regarding the type of vehicle used in that area.

The following characteristics represent the typical collection vehicle, however, these are only for guidance.

It may be possible to engage a collection service provider to use smaller collection vehicles to service developments with narrow roadways and laneways, or for on-site collections. However, as the availability of smaller vehicles to make services varies between councils and private contractors, wherever possible the development should be designed to accommodate vehicles of a similar size to that reported below.

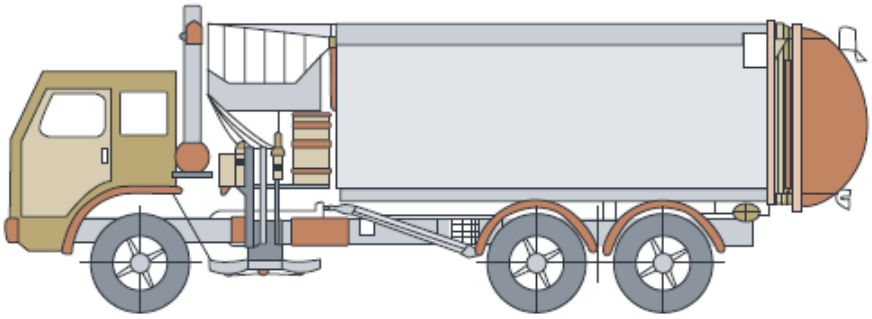


Rear loading collection vehicle

This is commonly used for domestic garbage and recycling collections from MUDs. It can be used to collect waste stored in MGBs or bulk bins, particularly where bins are not presented on the kerbside.

Rear loading collection vehicle	
Length overall	10.24m
Width overall	2.5m
Operational height	3.5m
Travel height	3.5m
Weight (vehicle only)	12.4 tonnes
Weight (payload)	9.5 tonnes
Turning circle	18.0m

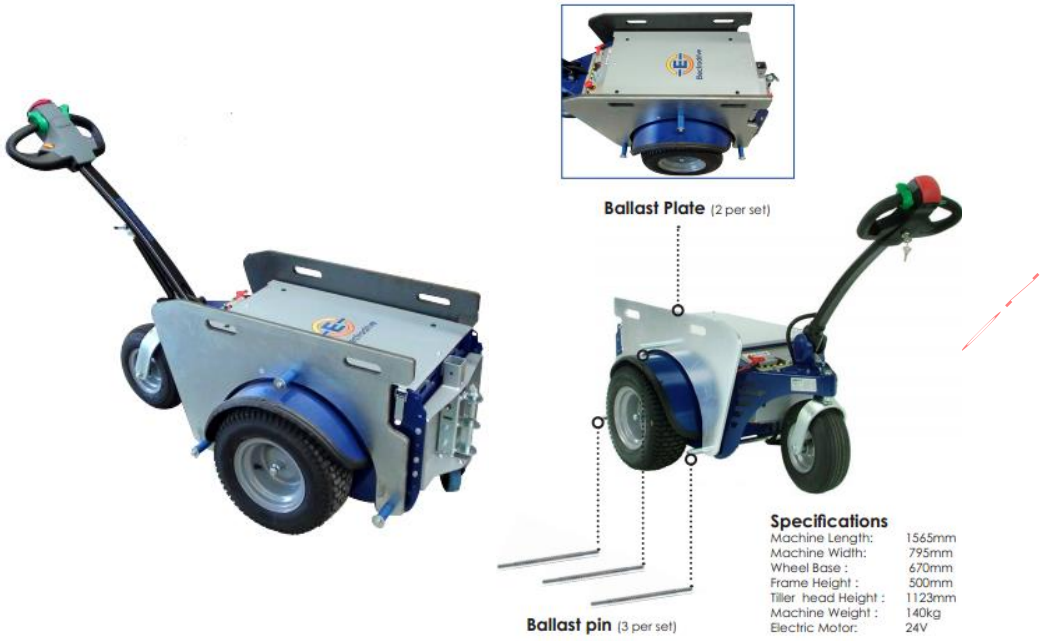
Side-loading collection vehicle



Side-loading collection vehicle	
Length overall	9.64m
Front overhang	1.51m
Wheelbase	5.20m
Rear overhang	2.93m
Turning circle kerb to kerb	17.86m
Turning circle wall to wall	20.56m
Front of vehicle to collection arm	3.8m
Maximum reach of side arm	3.0m
Travel height	3.63m
Clearance height for loading	3.9m

This is the most commonly used vehicle for domestic garbage and recycling collections. It is only suitable for collecting MGBs up to 360 litres in size.

APPENDIX B.4 TYPICAL MOTORISED BIN TUG



Typical applications:

- Move trolleys, waste bin trailers and 660/1100L bins up and down a ramp incline.
- Quiet, smooth operation with zero emissions and simple to use, no driver's licence required
- Suitable for:
  - High rise building & apartment basements
  - Large factories & warehouse with sloped ground
  - Caravan parks & other large outdoor areas

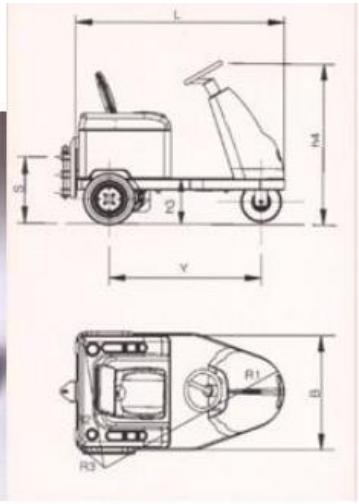
Features:

- 1 tonne tow capacity of inclines up to 8 degrees
- 500kg tow capacity if inclines up to 14 degrees
- CE Compliant
- 4.5 km/h max speed
- 2 x 80amp batteries – includes charger
- Powerful transaxle
- Hitch to suit 660L bins

Safety Features:

- Intuitive paddle lever control
- Stops and repels the unit if activated when reversing.
- Site assessment recommended to assess ramp incline steepness *(See Useful Contacts)*

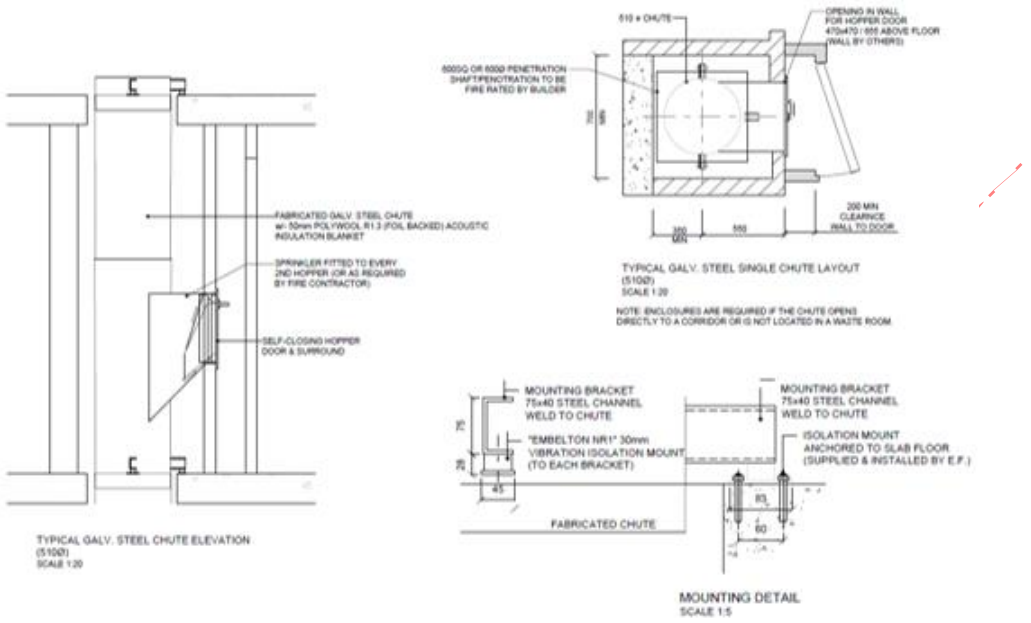
APPENDIX B.5 TYPICAL SEATED BIN MOVER



		UNIT M.	BULL 2	BULL 4
Manufacturer	DEC			
Model	BULL			
Platform loading cap.	Nominal capacity	kg	-----	-----
Pull capacity	Pull nominal capacity	kg	2000	4000
Power type	Electric - endotermic		electric	electric
Controltype	Standing / seated thiller / steer		seated / steer	seated / steer
Tyres	Pn=pneum. Se=superelastic		Pn	Pn
Wheels	N. front/rear - x drive	n.	1/2X	1/2X
Platform dimensions	L x B (lengh x width)	mm	-----	-----
Platform hight	h6 = unload clearence	mm	-----	-----
Overal dimensions	L = lenght B = width h1 = foot leve h3 = Seat height h4 = Steer height	mm mm mm mm mm	1500 900 1820 310 1250	1600 930 1960 340 1330
Turning radius	R1 = front min. external R2 = rear min. external R3 = front min. internal	mm mm mm	1400 1000 400	1500 1000 400
Aisle width	A = 180° turn	mm	2200	2300
Tow hook height	s = center from ground	mm	220-350-490	240-380-520

APPENDIX C INSTALLATION EQUIPMENT AND WASTE ROOM LAYOUTS

APPENDIX C.1 TYPICAL SINGLE WASTE CHUTE SPECIFICATIONS

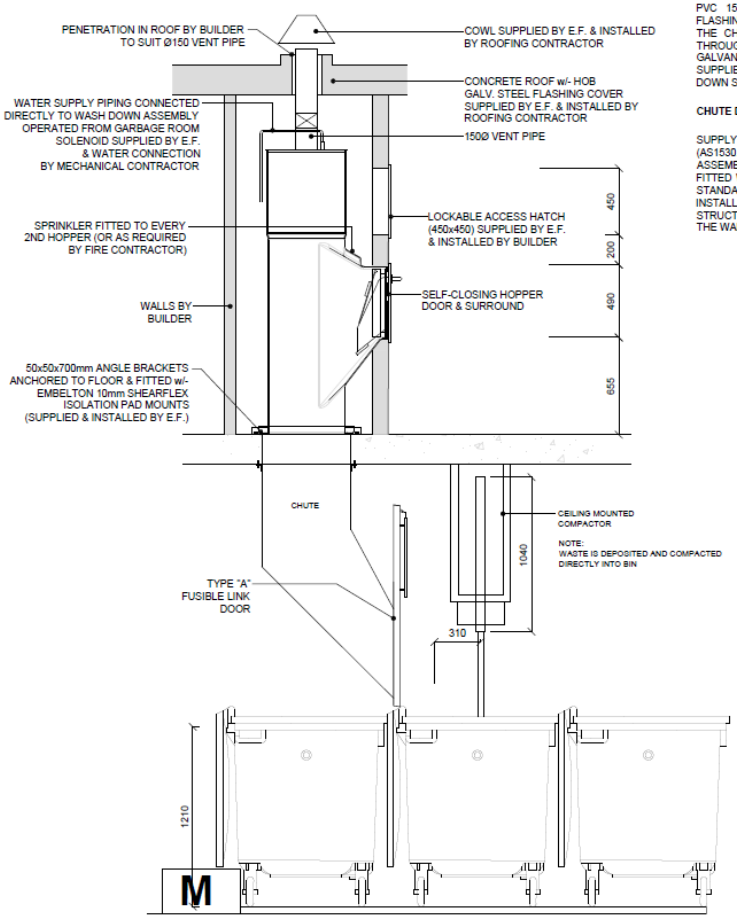


Waste chutes are supplied per the following specifications:

- either 510mm or 610mm (for 20+ levels) galvanised steel or recycled LLDPE polyethylene plastic;
- galvanised steel chute hoppers are wrapped with 50mm poly-wool R1.3 noise insulation foil to assist in noise reduction (or equivalent);
- penetrations on each building level at vertically perpendicular points with minimum penetration dimensions of either 600x600/700x700mm (square) or 650/750mm diameter (round) are required to accommodate the chute installation;
- a wash down system and vent should also be included as part of the chute system;
- council and supplier require that all chutes are installed without offsets to achieve best practise operationally for the building; and
- two hour fire-rated (AS1530.4-2005) stainless steel refuse chute doors at each service level. All doors are to be fitted with a self-closing mechanism to meet BSA fire standards.

NOTE: Chute doors are installed after walls rendered, painted or when required. Information stickers will be placed on each chute door at each residential level.

APPENDIX C.2 TYPICAL LINEAR TRACK SYSTEM



VENT:

PVC 150MM DIAMETER VENT PIPE WITH COWL, DEKTITE FLASHING AND EXTRACTION CAP FITTED FROM THE TOP OF THE CHUTES. PIPE EXITS AS PER REQUIRED BY BUILDER THROUGH PLANT ROOM ROOF AND CAPPED WITH GALVANISED STEEL REDUCTION CAP. ACCESS HATCH TO BE SUPPLIED ON LAST LEVEL FOR SERVICING OF THE WASH DOWN SYSTEM

CHUTE DOORS

SUPPLY AND FIT STAINLESS STEEL, TWO HOUR FIRE-RATED (AS1530.4-2005) REFUSE CHUTE DOORS AND THROAT ASSEMBLIES AT EACH SERVICE LEVEL. ALL DOORS ARE FITTED WITH A SELF-CLOSING MECHANISM TO MEET BSA FIRE STANDARDS. DOORS TO BE BLOCKED IN BY OTHERS INSTALLATION OF DOORS ON COMPLETION OF THE BUILDING STRUCTURE. THE CHUTE PIPES BRICKED IN, RENDERED AND THE WALLS PAINTED.

FIRE

FIRE SYSTEM CONTRACTOR TO:

- SUPPLY FIRE SPRINKLERS AND CONNECTION FOR SPRINKLER SYSTEM
- SPRINKLERS FITTED ON EVERY 2ND LEVEL (OR AS PER FIRE CONTRACTOR INSTRUCTION)

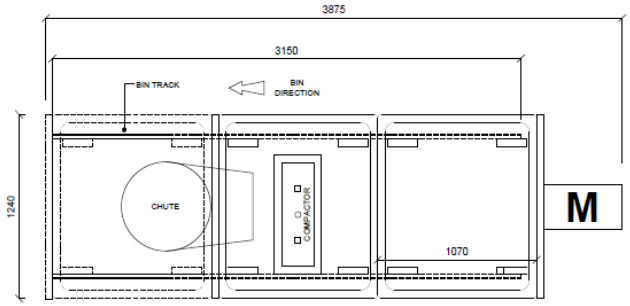
ELECTRICAL

YOUR ELECTRICIAN TO PROVIDE:

- ONE (1) STANDARD 240V GPO IN MAIN GARBAGE ROOM
- ONE (1) 415VOLTS, 5 PINS, 20AMPS FOR EACH REQUIRED COMPACTOR, CAROUSEL OR LINEAR
- COORDINATE WITH ELECTRICAL SUBCONTRACTOR

OPTIONAL EQUIPMENT

ELEPHANTS FOOT SUPPLY BALERS SUITABLE FOR BALING CARDBOARD PRODUCT IN COMMERCIAL, RETAIL AND RESIDENTIAL AREAS. BALED PRODUCT REDUCES THE REQUIREMENTS FOR ADDITIONAL COLLECTION EQUIPMENT. STATE OF THE ART COMPACTORS ARE ALSO AVAILABLE IN AUGER, BLADE AND ECO MODELS.

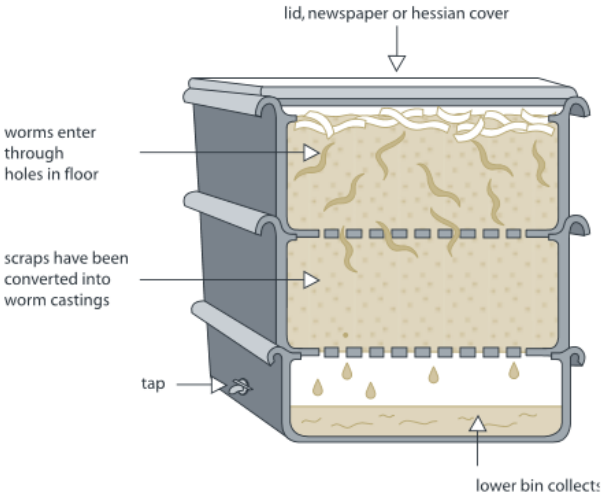


TYPICAL 2-BIN 1100L LINEAR WITH COMPACTOR
SCALE NTS

APPENDIX D SECONDARY WASTE MANAGEMENT PROVISIONS

APPENDIX D.1 TYPICAL WORM FARM SPECIFICATIONS

Worm farms



Space requirements for a typical worm farm for an average household:

Height – 300mm per level

Width – 600mm

Length – 900mm

There are many worm farm arrangements. The above dimensions are indicative only.

SOURCE: Department of Environment and Climate Change NSW 2008, Better Practice Guide for Waste Management in Multi-Unit Dwellings

APPENDIX D.2 TYPICAL APARTMENT STYLE COMPOST BINS

Apartment Style Compost bin – available from hardware stores

Suitable for:

- Vegetables
- Coffee grounds and filters
- Tea and tea bags
- Crushed eggshells (but not eggs)
- Nutshells
- Houseplants
- Leaves
- Cardboard rolls, cereal
- Boxes, brown paper bags
- Clean paper
- Shredded newspaper
- Fireplace ashes
- Wood chips, sawdust,
- Toothpicks, burnt matches
- Cotton and wool rags
- Dryer and vacuum cleaner lint
- Hair and fur
- Hay and straw

APPENDIX D.3 ELECTRIC ORGANIC COMPOST BIN

CLOSED LOOP
LOVE WHAT YOU DO
CLO'ey

Product Specifications

Decomposition Method	Fermentation by microorganisms
Decomposition Capacity	2 metric tonnes per year* (4 kg per day*)
Rating	220–240 V 50/60 Hz – 1.1 A
Decomposition Time	24 hrs
Operating Temperature	0C and 40C.**
Deodorisation Method	Nano-Filter system
Maximum Power	210 W
Power Usage	Average 1 kwh per day
Weight	21 kgs
External Dimensions	w 400 mm d 400 mm h 780 mm

* Food Waste Handling Capacity – based on an optimal operating environment.
** Ambient temperature range of area where unit may be installed.

SOURCE: Closed Loop Domestic Composter – See Useful Contacts
http://www.closedloop.com.au/domestic-composter

Planning Proposal Report

50-56 Atchison Street, St Leonards, NSW

80818192

Prepared for
EPIC Leisure Pty Ltd

21 February 2018

Cardno

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Name Vinothan Selvaratnam
Job title

Date Approved 21/02/2018

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1	13 December 2017	Preliminary Issue	KC/BW/AP/NF/TY/BS	Vinothan Selvaratnam
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3	14 February 2018	Final Issue	KC/BW/AP/NF/TY/BS	Vinothan Selvaratnam
4	21 February 2018	Final Issue	KC/BW/AP/NF/TY/BS	Vinothan Selvaratnam

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Figures

1 Introduction

1.1 Engagement

Cardno (NSW/ACT) Pty. Ltd. (Cardno) has been engaged by EPIC Leisure Pty Ltd to create planning proposal report for a mix use development located on 50-56 Atchison St, St Leonards NSW. The report comprises of building services and structural engineering services.

1.2 Scope

The purpose of this document is to highlight the following:

- Building services utility supply philosophies for the respective disciplines (electrical, communications, sewer, gas, stormwater, towns mains, essential fire services mains);
- General building services methodology;
- Building services spatial requirements;
- Conceptual building services designs; and
- Ecological Sustainable Development Principles proposed for the project.

1.3 Site Location

The proposed development site is located at 50-56 Atchison St, St Leonards NSW and bound by Atchison St to the south and Atchison Lane to the North.

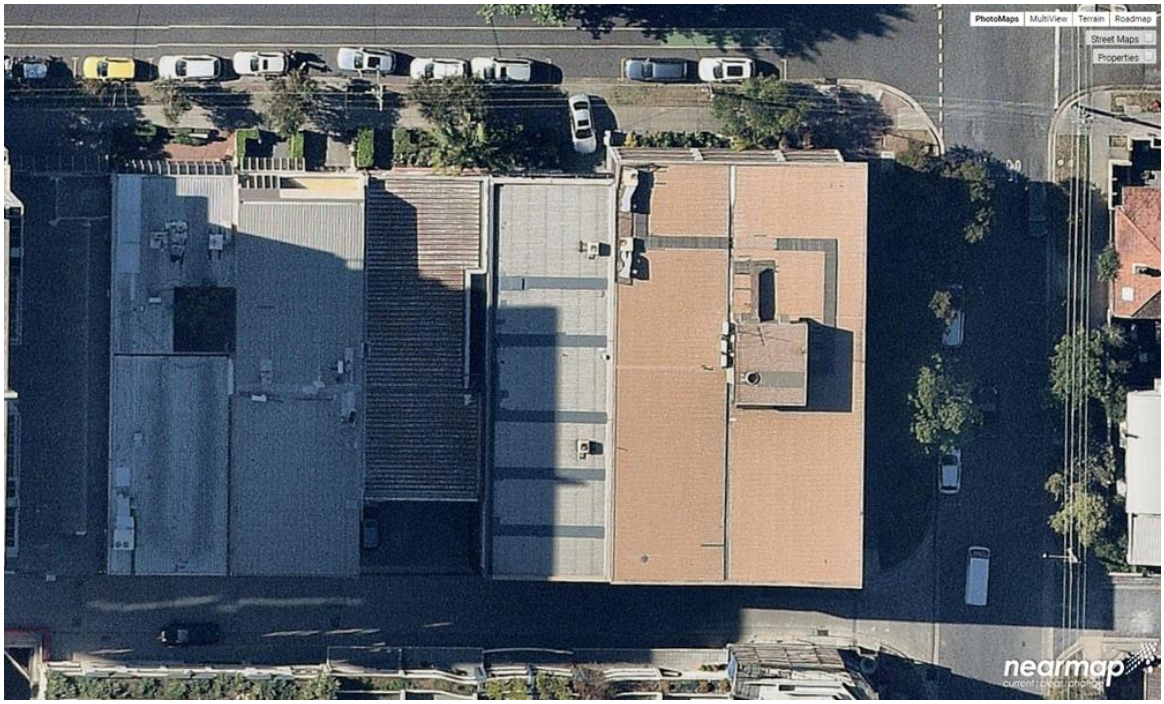


Figure 1-1 Satellite View

1.4 Proposed Development

EPIC Leisure Pty Ltd are proposing to develop the site into a mixed-use development consisting of nineteen levels as following with the following use:

- Common Basement Carpark (3 Levels);
- Commercial/Retail (4 levels);
- Residential (13 levels).

1.5 Strata Configuration

The subdivision for the development will be a single strata title subdivision, with special by-laws to regulate the apportionment of costs of common property between the different parts of the development.

1.6 NCC Classification

NCC classification(s) of the development are as follows:

NCC Classification	Class 2	Residential	(Levels 3 - 15)
	Class 5	Commercial	(Level 1 and 2)
	Class 6	Retail	(Ground floor & Mezzanine floor)
	Class 7a	Carpark	(Basement Levels B1 – B3)
Rise in Storeys	Sixteen (16) storeys		
Type of Construction	Type A Construction		
Effective Height	52.85 metres		

1.7 Mandatory NCC Energy Efficiency Requirements

Mandatory NCC Energy Efficiency requirements are as follows:

- J0 - Energy Efficiency
- J1 - Building Fabric
- J2 - Glazing
- J3 - Building Sealing
- J5 - Air-conditioning and Ventilation Systems
- J6 - Artificial Lighting and Power
- J7 - Heated Water Supply and Swimming Pool and Spa Pool Plant
- J8 - Facilities for Energy Monitoring

2 Mechanical Services

2.1 Regulations and Authorities

Relevant authorities having jurisdiction over this project are as follows:

- BCA;
- Lane Cove Council;
- Relevant Australian Standards;
- Work Cover;
- NSW Fire Brigade;

2.2 Design Methodology

2.2.1 Air Conditioning

Air conditioning systems will be provided for each residential unit and generally for each retail/commercial tenancy.

Provision of a central air-cooled VRF Air Conditioning System with roof mounted condensing units for each Commercial levels 1, 2.

Provision of individual VRF Air Conditioning units for the Retail areas on Ground and Mezzanine Floor. Condensing units will be located be located on roof level.

Air-cooled Split AC units to serve the GF Comms Room with outdoor unit located in the loading dock.

Provision of an efficient Multi Split DX Reverse Cycle Air Conditioning unit with air-cooled condensers located on the balcony of each apartment.

The systems will be designed in accordance with the BCA and relevant Australian Standards including but not limited to AS1668.1, AS1668.2 and AS3666.

2.2.2 Ventilation

Mechanical Ventilation needs to be provisioned where required to meet the requirements of the BCA where natural ventilation is not achievable or desirable, in accordance with the BCA and relevant Australian Standards including but not limited to AS1668.1, AS1668.2 and AS366.

Provision for mechanical ventilation to Commercial levels 1 and 2 and retail GF areas.

2.2.3 Carpark Exhaust

Car park exhaust and supply will be provided for the basement car parking areas. Make up air will be supplied via risers from the podium and exhaust via riser to the podium in compliance with the requirements of AS1668.2. The carpark ventilation system will be provided with Variable Speed Drives (VSD) motors and CO sensors as per AS1668.2, BCA requirements to minimise energy use and limit overall system noise levels.

Car park exhaust systems will continue to run while the make-up air systems will stop in fire mode.

2.2.4 Kitchen Exhaust

Residential

Ducted kitchen exhaust will be provided for each residential apartment with discharges to the main kitchen riser. This exhaust riser discharge will be located in accordance with the BCA and AS1668.

2.2.5 General Exhaust

Residential laundries and toilets

Residential laundries and toilets will generally be mechanically exhausted via discharge grilles to the riser. The exhaust riser discharge will be located in accordance with the BCA and AS1668.

Garbage exhaust etc.

Each garbage area in each building will be mechanically exhausted via riser to the roof and roof mounted fan. Discharges as per requirements of AS1668.2.

Plant rooms

Plant rooms will generally be exhausted at podium level where natural ventilation is not achievable or unsuitable for the application.

Fire Control Room exhaust

The fire control room shall have a fresh air system in accordance with the requirements of the BCA and AS1668.

2.2.6 Stair Pressurisation

Basement levels and the Tower shall have stair pressurisation systems provided for each fire escape stair. Fans shall be located on the ground floor and roof of the building – spaced apart and allowing for acoustic limitations.

Mechanical relief air system for the tower shall be provided to serve the lobby of the tower. The relief air system shall operate in fire mode only.

Relief air system for the basement fire stairs shall be provided via the car park exhaust system.

2.3 External Design Criteria

The air conditioning system design will be based upon the following external ambient conditions:

- Summer: 32ºC DB
  23°C WB
- Winter: 7ºC DB

2.4 Internal Design Conditions

The air conditioning system will be designed to maintain the following internal conditions:

- 24ºC +/- 1ºC in Summer
- 20ºC +/- 1ºC in Winter

No humidity control will be provided other than the normal dehumidification achieved as a result of cooling or heating incoming air.

2.5 Air Conditioning Loads

The following loads will be used in the design of the air conditioning systems:

- Lighting Load: 15 W/m^2
- Equipment Load: 20 W/m^2 Offices.
  5 W/m^2 Bed Rooms.
  15 W/m^2 General “front of house” areas.

2.6 Occupancy Rates & Outside Air Rates

The occupancy and outside air rates are as set out in AS1668.2

2.7 ESD Initiatives

At this stage, the following ESD initiatives are proposed:

- High efficiency (high COP) motors and equipment;
- Cross flow ventilation to apartments;
- Insulated ductwork;
- Variable speed drives on all fan motors;
- Individual toilet exhaust fans and FCR OA fan interlocked to local light switches;
- CO monitoring in the carpark;
- After hours switches.

2.8 Spatial Requirements

We have reviewed the architectural drawings and incorporated all required spatials.

3 Electrical Services

3.1 Regulations and Authorities

Relevant authorities having jurisdiction over this project are as follows:

- National Construction Code;
- Lane Cove Council;
- Relevant Australian Standards;
- Work Cover;
- NSW Fire Brigade;
- Environmental Protection Agency;
- AS/NZ 3000 – Australian Wiring Rules;
- Service and Installation Rules of NSW;
- Ausgrid Rules and Regulations;
- Australian and Communications Media Authority (ACMA);
- Communications Alliance (CA); and
- NBNco.

3.2 Design Methodology

3.2.1 Substation

At this stage, an onsite Ausgrid surface chamber substation will be provided to cater for the anticipated electrical load of the proposed development site.

The capacity of substation is assumed to be in the order of 1000kVA. However as long the existing substation supplies loads outside the property, the capacity of new substation is subject to Ausgrid approval.

The proposed substation location is shown on the architectural plans.

3.2.2 Electricity Supply

The electricity supply to the proposed onsite substation will be via the Ausgrid high voltage network in the vicinity of the site.

The high voltage feeders will be disconnected from the existing substation and connected to the new one once the building is built.

3.2.3 Consumer Mains

The consumer mains will be two (2) hour fire rated and reticulate from the onsite substation to the main switchboards.

The consumer mains supplying other buildings will be enclosed in 1500mm thick concrete casing when passing through the property.

3.2.4 Main Switchboards

Main switchboards (MSB) will be Form 3B and IP42 rated.

There will be one Switchroom on Basement 1 (B1) floor. The Main Switchboard will serve the following in respective parts of the buildings:

- Retail;
- Commercial;
- Residential;

The Switchroom will be 2-hour fire rated and will have two (2) forms of egress.

3.2.5 Distribution boards

Distribution boards will be Form 1 construction and IP42 rated.

Distribution boards will be provided as follows:

- Each retail/commercial tenancy;
- Each residential apartment;
- “House” areas of Carpark, lift lobbies and plant areas;

3.2.6 Subcircuit Cabling

Subcircuit cabling will be in accordance with AS3008 and AS3000.

Subcircuit cabling will be sized to cater for:

- the respective load;
- fault current rating; and
- voltage drop.

Subcircuit cabling will be PVC/PVC and XLPE/PVC type with the exception where fire rated cabling will be provided for safety services in accordance with the BCA.

3.2.7 Earthing

A MEN earthing system will be provided to the building in accordance with AS3000, Service and Installation Rules of NSW

3.2.8 House and Tenants Metering

“House” distribution boards will be metered at the respective main switchboard.

Retail/Commercial tenancy distribution boards will be metered from a central location in a common area.

Residential apartments will be metered on a floor by floor basis from a central location on the respective level.

3.2.9 General Lighting

General internal lighting will be provided in accordance with AS1680.

External lighting will be in accordance with AS1158 and local Council requirements. External lighting will be controlled via photoelectric cells and timers.

Internal lighting control for the following areas as follows:

- Carpark lighting – time clock and movement detectors;
- Common areas – movement detectors/local switching;
- Apartments – local switching;

3.2.10 Exit and Emergency Lighting

Single point exit and emergency lighting will be provided with test switches at the respective distribution boards.

Exit and emergency lighting will be in accordance with AS2293.

3.2.11 Telecommunications

NBN will provide lead-in fibre cables to the new development’s main campus distributor.

Following will be provided for the lead in fibre cables:

- Lead in cable pit and pipe system from street network to the building entrance.
- Provision of cable tray route and conduit to each residential apartment Network Terminating Device (NTD);
- Provision of cable tray and conduit to each commercial/retail premise NTD

Cabling infrastructure will comply with ACMA regulations and relevant Australian Standards

The central building distributor will be sized accordingly to accommodate three (3) telecommunications carriers.

The building will have full mobile phone coverage via an in-house distributed antenna system.

3.2.12 MATV and PAYTV

MATV antenna will be installed on roof complete with associated cabling, amplifiers and MATV filtered headend located within the MDF room.

PAYTV lead-in cable shall be from street and Foxtel filtered headend located within the Main campus distributor room.

A dedicated and centralised "free to air" digital and PAYTV system will be provided to the building.

There will be an RG11 backbone to splitters located on each level within the respective building telecommunications riser cupboards. For the residential levels, RG6 horizontal cables will be reticulated from the splitters on the respective levels to the individual apartments.

For the retail and commercial levels, future tenants will reticulate their own horizontal cabling from the splitters on the respective levels to their individual retail or commercial tenancies.

3.2.13 Security

CCTV

The CCTV system will consist of the following:

- Head end located in the Main building distributor room;
- IP based, individually addressable, CCTV cameras located at the following points:
  - the vehicle and pedestrian entries to the building;
  - main foyers;
  - lift lobbies;
  - carpark;
  - building perimeter;
  - exit points of the building;
  - public areas;
  - as well as any other locations instructed by the local council in their DA conditions of consent;
- Data backbone cabling to accommodate the CCTV camera infrastructure;
- Digital Video Recording (DVR) system capable of providing thirty (30) day storage capacity.

Intruder Detection

At this stage intruder detection will be provided by the individual tenants.

The access control system proposed will be capable of supporting intruder detection field devices.

Access Control

The Access Control system will consist of the following:

- Head end located in the Main campus distributor room;
- IP based, individually addressable, card readers located at the following points:
  - the vehicle and pedestrian entries to the building;
  - main commercial and residential foyer entries;
  - commercial and residential lifts.
  - Carpark B2, boom gate.
- Data backbone cabling to accommodate the access control infrastructure;
- Reed switches to all building perimeter doors;
- Access control proximity cards;
- Door controllers;
- Intercom points to the following locations:
  - the vehicle and pedestrian entries to the building;

> main commercial and residential foyer entries.

3.2.14 Lightning and Surge Protection

Lightning protection will be provided in accordance with AS1768.

Primary surge protection will be provided at the main switch board(s) and telecommunications building distributor (MDF). No secondary surge will be provided at this stage. If this is required, then the individual tenants will provide this.

3.2.15 Power Factor Correction

Power factor correction will be provided at the main switch board(s) in accordance with the Installation and Service Rules of NSW.

The power factor correction units proposed will correct the power to a factor of 0.95 or better.

3.3 Public Domain Lighting

Public Domain Lighting will be provided in accordance with:

- Local Council; and
- AS 1158.

3.4 ESD Initiatives

At this stage, the following ESD initiatives are proposed:

- Energy efficient lighting and lighting systems;
- Lighting levels and lighting power densities to all other areas in accordance with BCA – Section J requirements;
- Digital power metering for all common area submains and house distribution boards as per BCA part J8;
- Reduction of “spill” lighting;
- Power factor correction.

3.5 Spatial Requirements

We have reviewed the architectural drawings and incorporated all required spatial.

4 Fire Services

4.1 Regulations and Authorities

Relevant authorities having jurisdiction over this project are as follows:

- National Construction Code;
- Local Council;
- Relevant Australian Standards;
- Work Cover;
- NSW Fire & Rescue;
- Environmental Protection Agency.

4.2 Design Methodology

4.2.1 Fire Sprinklers

A combined fire sprinkler hydrant system utilising common, water supplies, tank, fire pumps and pipe work main risers located in the fire stairs would be provided in accordance with:

- AS 2118.6;
- AS 2419
- AS 2118
- BCA;
- Fire Engineered “Alternate Solution” where applicable.

4.2.2 Fire Services Water Supplies

A Grade 1 water supply via connection from the ‘town’s main water main and the provision of a 120,000 litre (approx.) combined fire sprinkler / hydrant water storage tank located in basement 1 would be provided in accordance with:

- BCA;
- AS 2118;
- AS 2419;

A pump room on basement level 2 incorporates the required combined sprinkler hydrant diesel and electric pump set. The pump room should be provided with direct street access or a Fire Engineered alternative solution would be required.

Another pump room incorporating a fire brigade relay pump will be provided on basement level 2

The pumps will be designed to provide the required flow rates and pressures.

The system will incorporate a connection to the Sydney Water main in the adjacent street, a combined sprinkler hydrant booster valve will be located adjacent the building entry

4.2.3 Fire Hydrant Service

Internal fire hydrants located within fire isolated exits of each level.

The fire hydrant service will be in accordance with the Building Code of Australia requirements and AS2419 - Fire Hydrant Installations.

4.2.4 Fire Hose Reel System

The system will be connected to the metered domestic cold water supply with hose reels located within four (4) meters of fire isolated exits on all non-residential floors.

Fire Hose reel system will be in accordance with the Building Code of Australia requirements and AS 2491.

4.2.5 Automatic Fire Detection Systems

Full addressable, automatic fire detection system protection reporting to the Main Fire Indicator Panel serving will be provided throughout the development in accordance with:

- AS1670;

- AS1668;
- BCA;
- Fire Engineered “Alternate Solutions’ where applicable.

A fire control room has been allowed for in the ground floor main entry area of the building. The Main Fire Indicator Panel for the proposed development will be located within this fire control room.

Smoke alarms will be provided within the residential apartments in accordance with AS3786.

4.2.6 Emergency Warning and Intercommunication Systems (EWIS)

An Emergency Warning and Intercommunication System (EWIS) including speakers, break glass alarms and warden intercom phones will be provided throughout the building.

- AS 1670.4;
- BCA;
- Fire Engineered “Alternate Solution” where applicable.

The EWIS Master Emergency Control Panel (MECP) for the proposed development will be located within this fire control centre.

Visual indicators will also be provided in plant rooms.

4.2.7 Fire Extinguishers

Fire extinguishers will be provided throughout the building in accordance with the BCA.

4.3 ESD Initiatives

At this stage there are no ESD initiatives are proposed:

4.4 Spatial Requirements

We have reviewed the architectural drawings incorporating required spatials.

5 Hydraulic Services

5.1 Regulations and Authorities

Relevant authorities having jurisdiction over this project are as follows:

- National Construction Code;
- Lane Cove Council;
- Relevant Australian Standards;
- Work Cover;
- NSW Fire & Rescue;
- Environmental Protection Agency
- Sydney Water.
- NCC Vol. 3 2016. Plumbing Code of Australia

5.2 Design Methodology

5.2.1 General

The hydraulic services documented for the development will be in accordance with the requirements of the relevant authorities. A hydraulic services concept plan has been appended to this brief which nominates the location of the existing Authority mains surrounding the site, proposed service connections and conceptual stormwater drainage layout.

Sydney Water will be contacted with regards to Section 73 requirements and Pressure Inquiry of the mains water supply in the vicinity of the site.

5.2.2 Sewer Drainage & Sanitary Plumbing

The sewer drainage and sanitary plumbing system will collect the discharge from the various sanitary fixtures and drainage points throughout and will gravitate to the existing Sydney Water Sewer Mains in Atchison Street.

Any Trade waste from the Food Retail Tenancies will be collected via a dedicated Trade Waste Drainage System and discharged through a Grease Arrestor governed by a Trade Waste agreement with the Sydney Water Corporation.

The system will be designed in accordance with AS3500 the National Drainage and Plumbing Code.

Final connections and arrangements for the sewer are subject to further negotiations with Sydney Water.

5.2.3 Stormwater Drainage & Downpipes

Gravity stormwater drainage will be provided from the roof areas to cater for a 1:20 and 1:100 year storm and may be gravitated to the Sydney Water controlled drainage system in the adjacent streets via a combined rainwater harvesting and onsite detention (OSD) system.

Pipe work could possibly be suspended and reticulate to the perimeter of the site where it will drop vertically to pipework under the footpath and road.

Onsite stormwater detention (OSD) tank will be provided for the proposed development in accordance with Lane Cove Council requirements.

A rainwater harvesting tank will intercept roof water run-off from the new roof for possible re-use of the water for the purpose of toilet flushing, landscape irrigation and laundry re-use may also be considered.

The stormwater drainage system will be designed in accordance with Lane Cove Council current stormwater guidelines, “Australian Rainfall and Runoff” and AS3500 the National Drainage and Plumbing Code.

The proposed onsite detention tank and rainwater harvesting tanks will be documented on the concept plans appended to this document for further reference.

5.2.4 Cold Water Service

The cold water service for domestic supply will be a metered mains-fed system and be complete with new connections to the Sydney Water’s main in Atchison Street.

Independent mains water meter may be provided to service the each of the respective stratums (ie. retail, commercial, residential) subject to further negotiations with Sydney Water.

The cold water service will be reticulated to all fixtures, faucets, and points of connection.

Independent metering will also be provided to the proposed stratums.

The cold water service will be in accordance with AS3500 the National Drainage and Plumbing Code.

The proposed cold water service with meter locations have been documented on the concept plans appended to this document for further reference.

5.2.5 Domestic Hot Water Service

The domestic hot water service will provide controlled temperature hot water to all fixtures and faucets requiring hot water.

Cross linked polyethylene piping will also be considered for the service from the apartment control valve to apartment fixtures and fittings.

The domestic hot water for the residential may be provided via gas centralised hot water system. The reticulation of hot (50oc) water will be provided via centrally controlled Thermostatic Mixing Valves, UV sterilisation (optional), circulating pumps and possibly a ring main system.

The retail and commercial may be provided with independent electric storage heaters.

The hot/warm water service will be in accordance with AS3500 the National Drainage and Plumbing Code.

The proposed hot water system will be documented on the concept plans appended to this document for further reference.

5.2.6 Fire Hydrant Service

The system will incorporate a connection to the Sydney Water main in the adjacent street, a hydrant booster valve located adjacent the building entry and internal fire hydrants located within fire isolated exits of each individual residential/commercial building.

A pump room incorporating the required pump set, (diesel), will be provided with direct street access. The pump will be designed to provide the required flow rates and pressures.

The fire hydrant service will be in accordance with the Building Code of Australia requirements and AS2419 - Fire Hydrant Installations.

5.2.7 Fire Hose Reel System

The system will be connected to the metered domestic cold water supply with hose reels located within four (4) meters of fire isolated exits in basements and commercial levels.

Fire Hose reel system will be in accordance with the Building Code of Australia requirements and AS 2491.

5.2.8 Gas Service

The gas service regulated supply will be connected to Jemena main where accepted by the authority in Atchison Street.

Independent gas metering will be provided to service the each of the various users (ie. retail, commercial, residential) subject to further negotiations with Jemena.

The system could be reticulated to the domestic hot water plant, and kitchen cook tops.

Any kitchen cooktops will be fitted with flame failure devices.

For any future retail tenancies, the capacity and associated metering will be available for future connection.

The new gas service(s) will be in accordance with the AS 5601.1:2010 and the requirements of Jemena.

5.2.9 Sanitary Fixtures, Faucets and General Equipment

All equipment such as sinks, basins and tapware will be specified by the architect/interior designer.

The sanitary fixtures and faucets will be of a reasonable standard throughout to achieve high levels of energy and water efficiency. These may be 3A WELS rated (equivalent to previous AAA rating) or better in accordance with the requirements for this type and class of building. To be confirmed.

Water reduction may be achieved via the use of dual flush cisterns for the water closets (3 litre half / 6 litre full flush), and the use of water flow controls on faucets and temperature limiting devices.

Shower hoses to be low flow type.

Isolation valves required to all toilets, bathrooms and kitchens.

5.2.10 In-house Flow Metering

The following areas shall be independently metered via a NHP type metering system or equivalent. Head-end software will be installed on the building managers PC.

5.3 ESD Initiatives

At this stage, the following ESD initiatives are proposed:

- Rainwater harvesting for landscape irrigation;
- Low flow fittings and fixtures;
- Additional insulation to hot water pipework;
- Solar hot water systems with gas boost.

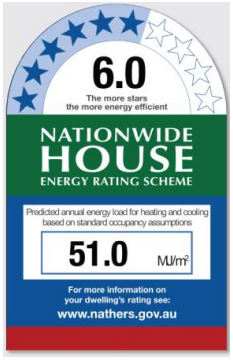
5.4 Spatial Requirements

We have reviewed the architectural drawings and incorporated all required spatial.

6 ESD Services

In line with developer's vision, the principles of ecologically sustainable design will be an integral consideration throughout this development. The sustainability targets for the development will be achieved in an integrated and staged approach through minimising the need for consumption (via passive measures) and then consumption optimisation (resource efficiency), performance management and ongoing monitoring. The initiatives presented in this report demonstrate a wide range of measures which will result in high levels of environmental performance and an increment on occupant's health, productivity, comfort and satisfaction.

6.1 Regulations and Authorities



Relevant authorities having jurisdiction over this project are as follows. The development will meet and where possible exceed the following regulatory sustainability requirements:

- Building Code of Australia;
- Lane Cove Council;
- BASIX
- NatHERS (Nationwide House Energy Rating Scheme)

6.1.1 Building Sustainability Index (BASIX)

The National Construction Code (NCC) Section J deems that developments with a building class of 1 or 2 in NSW should be assessed against the BASIX rating scheme. The BASIX rating scheme investigates the thermal comfort of the building, energy consumption and water consumption.

There are three input sections: Energy, Thermal Comfort, and Water. Each of these three categories is integrated and often influences each other.

New residential developments in NSW must reduce their energy and water use, according to BASIX requirements developed by the NSW Department of Planning & Environment. The objectives of the BASIX scheme are relative to an average development in NSW and as follows.

- BASIX Water reduction target
- BASIX Energy target for greenhouse gas emissions, depending on building height.
- BASIX Minimum thermal performance requirements for heating and cooling loads. The maximum allowable heating and cooling loads for each apartment are dependent on the floor area of the particular dwelling.

Achievement of the specified targets is demonstrated through use of a web-based prediction tool. This tool requires input of several aspects of the dwelling's design, and produces a BASIX certificate and report listing all of the environmental initiatives proposed and required to achieve the mandatory performance.

A BASIX Certificate is a DA requirement and demonstrates compliance with the NSW Government's sustainability targets. The development shall meet and where possible exceed the BASIX requirements.

6.1.2 NatHERS (Thermal performance compliance – part of BASIX)

The Nationwide House Energy Rating Scheme (NatHERS) is a star rating system (out of ten) that rates the thermal performance efficiency of a dwelling, based on its design.

The scheme provides a benchmark to estimate dwellings' potential heating and cooling energy use and helps to make residential units more comfortable and energy efficient.

This development shall comply with the NatHERS and the minimum BASIX heating and cooling requirements. The NatHERS assessments and certification will be performed at a later stage and as part of the BASIX.

The development shall achieve the minimum BASIX thermal performance for all the residential units.

6.1.3 NCC Section J

The National Construction Code (NCC) Section J sets minimum energy performance requirements for all new development, which cover air-conditioning, ventilation, lighting, power and hot water, as well as building fabric considerations including thermal construction and insulation, building sealing, glazing and shading.

The Deemed-to-Satisfy Provisions in Section J of the NCC 2016 are defined in eight parts:

- Part J1 - Building Fabric – Minimum thermal performance constructions for roofs, ceilings, roof lights, walls, and floors in the relevant climate zone.
- Part J2 - External Glazing – Minimum thermal performance for the glazing in the relevant climate zone.
- Part J3 - Building Sealing – Provisions to reduce the loss of conditioned air and restrict unwanted infiltration to a building.
- Part J4 – Blank in NCC 2016
- Part J5 - Air-Conditioning and Ventilation Systems – Requirements to ensure these services are used and use energy in an efficient manner.
- Part J6 - Artificial Lighting and Power – Requirements for lighting and power to ensure energy is used efficiently within a building.
- Part J7 - Hot Water Supply – Restrictions for hot water supply design except for solar systems within climate zones 1, 2 and 3.
- Part J8 - Facilities for Energy Monitoring

The development shall meet and where possible exceed the NCC energy efficiency requirements of Part J.

7 Structural Services

7.1 Regulations and Authorities

Relevant authorities having jurisdiction over this project are as follows:

- Building Code of Australia;
- Lane Cove Council;
- Work Cover;
- Relevant Australian Standards, in particular the following:

>	AS	1170-2002	Structural Design Actions
			Part 0 General Principles
			Part 1 Permanent, Imposed and other Actions
>			Part 2 Wind Actions
>			Part 4 Earthquake Loads
>	AS	3600 - 2001	Concrete Structures
>	AS	3700 - 2001	Masonry Structures
>	AS	4100 - 1998	Steel Structures
	AS	2159 - 2009	Piling Design & Installation

7.2 Proposed Structural System

We propose a robust and cost-effective framed structural system, with vertical forces carried by reinforced concrete columns and shear walls, and earthquake and wind forces resisted by reinforced concrete shear/lift /stair walls with post--tensioned suspended slabs, and a reinforced concrete piled shoring system, and columns/walls founded on pad and strip footings, as described below.

Shoring System

Based on our experience with a number of projects in the area, including 9-11 Atchison St, we propose a shoring system consisting of contiguous piles approx. 400 mm diameter on site boundaries adjoining existing buildings, and soldier piles approx. 600 mm diameter with infill shotcrete on street frontages and boundaries not adjoining existing buildings.

These piles will be socketed into the 3500 kPa sandstone, and laterally restrained by temporary rock anchors during construction, and by the suspended basement and ground floor slabs thereafter.

The above will need to be confirmed by a detailed geotechnical investigation.

Footing System

Based on experience with other projects in the area, it is likely that low –to –medium strength sandstone will be encountered at bulk excavation level.

The columns and walls are proposed to be supported on pad and strip footings founded on the low –to – medium strength sandstone.

Similarly, this will need to be confirmed by a detailed geotechnical investigation.

Columns

We propose a column grid of approx. 8.4 metres by 7.5 metres in the basements, and 7.5 metres by 7.5 metres with 6.5 metre end spans in the commercial and residential floors.

Based on the above assumed columns grids, the reinforced concrete columns will range in size from 200 x 600 mm at the top 2 floors, to 400 x 1000 at the lowest basement level (please see schedule below).

Shear Walls

The reinforced concrete lift and stair walls, supplemented by additional shear walls as required, will resist earthquake and wind forces.

The reinforced concrete shear, lift and stair walls will range in thickness from 170 thick at the upper floors to 300 thick at the basement (please see schedule below).

Suspended and Transfer Slabs

With the exception of the ground floor and level 3 transfer slabs, the post-tensioned concrete suspended slabs in the basement, commercial and residential floors will generally be 200 mm flat plates

We estimate that the level 3 transfer slab supporting 13 floors will be an approximately 1000 mm thick post-tensioned concrete flat plate.

We estimate that the ground floor transfer slab supporting 20 floors will be an approximately 1300 mm thick post-tensioned concrete flat plate.

If the basement columns could be carried up to the residential floors, both ground and level 3 transfer slabs may be avoided or minimized.

Similarly, if the commercial area columns could be carried up to the residential floors, the level 3 transfer slab may be avoided or minimized.

Indicative member sizes are summarized on the table below. The indicative member sizes are for planning purposes only.

Indicative Member Sizes

Structural Element	Location	Indicative Size (mm)	Notes
P/T Suspended Slab	All floors except Ground & Level 3	200 thick	
P/T Transfer Slab	Level 3	1000 thick	
P/T Transfer Slab	Ground Floor	1150 thick	
Slab on ground	Basement Level 4	120 thick	Allow SL 82 mesh & sawcut joints at 5 metre c/c
Column	Level 14 to Roof	200 X 600	
Column	Level 12 to 14	200 x 800	
Column	Level 9 to 14	220 X 1200	
Column	Level 3 to 9	220 X 1500	
Column	Ground to Level 3	350 X 1000	
Column	Basement Levels 1 to 4	400 X 1000	
Lift/Stair/Shear Walls	Level 14 to Roof	170 thick	
Lift/Stair/Shear Walls	Level 6 to 13	200 thick	
Lift/Stair/Shear Walls	Ground to Level 5	250 thick	

Structural Element	Location	Indicative Size (mm)	Notes
Lift/Stair/Shear Walls	Basement Levels 1 to 4	300 thick	
Pad & Strip footings	Basement Level 4	As per detailed design	On sandstone with 2000 to 3500 kPa working capacity
Shoring	Basement Level 4 to Ground, on boundaries adjoining existing buildings	contiguous piles 400 mm diameter	Socketed into 3500 kpa sandstone
Shoring	Basement Level 4 to Ground, on street frontages	soldier piles 600 mm diameter @ 2000 mm centres with 180 thick infill shotcrete	Socketed into 3500 kpa sandstone

N O R T H S Y D N E Y C O U N C I L

NORTH SYDNEY LOCAL PLANNING PANEL – PLANNING PROPOSALS

DETERMINATIONS OF THE NORTH SYDNEY LOCAL PLANNING PANEL MEETING HELD IN THE COUNCIL CHAMBERS, NORTH SYDNEY, ON 1 JULY 2020, AT 2PM.

PRESENT

Chair:

Grant Christmas in the Chair.

Panel Members:

Jan Murrell, Panel Member
Ian Pickles, Panel Member
Veronique Marchandeau, Community Representative

Staff:

Marcelo Occhiuzzi, Manager Strategic Planning
David Hoy, Team Leader, Assessments

Administrative Support

Peita Rose, Governance Officer (Minutes)

Apologies: Nil.

1. Minutes of Previous Meeting

The Minutes of the NSLPP - Planning Proposal Meeting of 5 February 2020 were confirmed following that meeting.

2. Declarations of Interest

Nil.

3. Business Items

On 23 February 2018, the Minister for Planning released a Section 9.1 Direction which outlines the instance when a Planning Proposal must be referred to a Local Planning Panel for advice prior to a Council determining as to whether that Planning Proposal should be forwarded to the Department of Planning and Environment for the purposes of seeking a Gateway Determination.

The Panel has considered the following Business Items and provided recommendations on each matter as described in these Minutes.

ITEM 1

PP No:	**3/18**
ADDRESS:	**50-56 Atchison Street, St Leonards**
PROPOSAL:	**To amend North Sydney Local Environmental Plan 2013 as follows:** • **increase the maximum building height control applying to the site from 20m to 58.1m (RL147.1);** • **increase the non-residential FSR control for the site from 0.6:1 to 1.7:1; and** • **establish an overall maximum Floor Space Ratio (FSR) control for the site of 6.4:1.**
REPORT BY NAME:	**Nigel Riley**
APPLICANT:	**Christophe Charkos (Urbis Pty Ltd)**

Public Submissions

Submitter	**Applicant/Representative**
	Christophe Charkos (Urbis)
	Stephen Jamison (Architect)

Panel Recommendation to Council:

The Panel endorses the Officer's Report and Recommendation and supports the Planning Proposal to be forwarded to the Department of Planning Industry and Environment (DPIE) for a Gateway Determination, subject to the provision of a special clause for the height of the building to exclude the lift overrun for access to the communal rooftop.

The Panel notes that the Planning Proposal is consistent with the general strategic direction of both the State Government and North Sydney Council.

The timing in respect to any Voluntary Planning Agreement is a matter for Council and the applicant.

Voting was as follows: Unanimous

Panel Member	**Yes**	**No**	**Community Representative**	**Yes**	**No**
Jan Murrell	**X**		Veronique Marchandeau	**X**	
Ian Pickles	**X**				
Grant Christmas	**X**				

ITEM 2

PP No:	**PP1/20**
ADDRESS:	**41 McLaren Street, North Sydney**
PROPOSAL:	**Planning Proposal PP1/20 seeks to amend NSLEP as it relates to land at 41 McLaren Street, North Sydney. In particular, the Planning Proposal seeks the following changes to NSLEP 2013:** • **Increase the maximum Height of Buildings from RL100 metres to RL226 metres;** • **Increase the minimum non-residential floor space ratio control from 0.5:1 to 3:1** **The Planning Proposal is also supported by a public benefit offer to the value of approximately $4.75 million to be formalised through a Voluntary Planning Agreement. The public benefit offer comprises the provision of affordable housing or works in kind.**
REPORT BY NAME:	**Karen Buckingham, Executive Strategic Planner, reporting on the independent assessment of PP1/20 by Planning Ingenuity**
REASON FOR NSIPP REFERRAL:	**Planning Proposal PP1/20 is referred to the NSLPP for advice prior to reporting to Council in accordance with Environmental Planning and Assessment Act 1979.**
APPLICANT:	**Erolcene Pty Ltd and Claijade Pty Ltd** **(contact person- Paris Wojcik)**

Public Submissions

40 Written Submissions received and shared with panel
1 x presentation / submission from applicant

Submitter	**Applicant/Representative**
	Michael Harrison (Speaker/Presenter, Strategic Advisor Urban Design and Planning)
	Piran Trethewey (Traffic Engineer)
	Greg Reed (Applicant and Landowner Representative)
	Paris Wojcik (Urban Planner)
	Jyoti Somerville (Heritage Consultant)

Panel Recommendation to Council:

The Panel recognises the proponent's efforts and detailed submissions with respect to this Planning Proposal.

The Panel notes that the applicable Local Strategic Planning Statement has recently been adopted and assured by the Greater Sydney Commission. The LSPS included reference to the Ward Street Masterplan, which was prepared following extensive research and consultation over a number of years. Council considered the decision of the Independent Planning Commission on 7 June 2019 in adopting that Masterplan.

The Panel generally agrees with the Council's assessment report (prepared by an independent planning consultant) and the reasons for not supporting the planning proposal. However, the Panel does not support this planning proposal for the fundamental reason that the proposal will result in unacceptable solar impacts on the proposed public open space contained in the Ward Street Masterplan area for many months of the year, not just mid-winter.

Voting was as follows: Unanimous

Panel Member	**Yes**	**No**	**Community Representative**	**Yes**	**No**
Jan Murrell	**X**		Veronique Marchandeau	**X**	
Ian Pickles	**X**				
Grant Christmas	**X**				

The public meeting concluded at 4.15pm.
The Panel Determination session commenced at 4.35pm.
The Panel Determination session concluded at 6.30pm.

Endorsed by Grant Christmas
North Sydney Local Planning Panel, 1 July 2020