



STUDIO
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ADDENDUM STATEMENT OF ENVIRONMENTAL EFFECTS

Proposed Residential Flat Buildings for Affordable Housing
61-65 Lucas Avenue, 36 McKay Avenue & 31 Harvey Avenue
Moorebank NSW 2170

Project 16/007 | October 2020 | Rev A

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1 Executive Summary

This report is an addendum to the Statement of Environmental Effects dated March 2018 lodged with the Development Application. It describes the amendments made to DA 552/2018, responding to Council's Requests for Information (RFIs), the Design Excellence Panel meeting and subsequent desktop review and the report assesses the effects that arise from the amendments.

Key changes include the extension of the lift to the roof level to service the rooftop communal open spaces in place of a stair climber, thus providing more equitable access to the rooftop common space; changes to the waste room and waste collection strategy with a new Ongoing Waste Management Report by Lid; adjustments to the common lobbies to improve their amenity and adjustments to unit layouts to generally improve living room and kitchen layouts. The modifications to the plans to improve residential amenity have resulted in a minor increase in Gross Floor Area. The other key modification is to the elevation design to respond to the Design Excellence Panel's advice to de-emphasize the vertical aspects of the building and to create a more clearly defined top. Wood look cladding has also been eliminated from the materials palette. Landscape plans prepared by a Michael Sui Landscape Architecture are also submitted as requested by Council.

The proposed development as amended satisfies the matters for consideration under the *EP&A Act 1979*. The proposed development does not give rise to any unacceptable adverse impacts and the development is in the public interest.

2 Background

The development application DA552/2018 was lodged on 18 July 2018. Council RFIs were received and responded to from July to November 2018. On 15 November, the application was presented to the Design Excellence Panel. Meeting minutes were received as well as other requests for information from Council on various matters. Amended plans and supporting reports were provided to Council on 27 August 2019, 15 October 2019 and 23 December 2019 to respond to Council's queries. A desktop review was then undertaken by the Design Excellence Panel and final comments received on 2 June 2020. The proposed amended package collates all requested changes by Council since DA lodgement.

3 The Proposal

3.1 Overview

The proposed development is for:

- Demolition of existing residential development
- Amalgamation of five allotments to a single allotment of 3655.78 m² (by survey)
- Erection of two five storey residential flat buildings with a total of 76 apartments
- Two level basement car park comprising car parking spaces for residents and visitors, bicycle parking, service and plant rooms and a waste room.

3.2 Staging of Construction

The proposal seeks staging of construction as follows:

- Stage 1 – Basement Construction and Erection of Building 2 (Northern Building)
- Stage 2 – Erection of Building 1 (Southern)

3.3 Key Development Statistics

The proposal is summarised in the table below as:

Feature	DA as Lodged July 2018	Amended Proposal Sept 2020
Total Site Area	3,655.80 m ²	
Number of Buildings	2	2
Height (in storeys)	5 storeys	5 storeys

Height (in metres)	19.3m (RL 42.80) (rooftop terrace balustrade)	20.515 (RL 45.3) (Lift overrun)
Total GFA	5,733.4 m ²	5,813.90
FSR	1.57:1	1.59:1
Total Number of Apartments	76	76
Building 1 (South)	37	37
Building 2 (North)	39	39
Number of affordable housing units	28	28
Number of off street car parking spaces	103	103
Bicycle Parking	25	25
Area of Common Open Space	930m ²	930m ²

3.4 Unit Mix

The unit mix features a mix of studios, one, two and three bedroom units geared towards affordable housing. The proposed mix of apartments is:

- 15 x studios
- 8 x 1 bedroom
- 50 x 2 bedroom
- 3 x 3 bedroom

3.5 Affordable Housing

The total number of units allocated to affordable housing remains at 28 and has not been amended. The units allocated to affordable housing have been adjusted to increase the floor space of affordable housing. This has been by reducing the proportion of small units allocated for affordable housing and increasing the proportion of larger units allocated for affordable housing. The reallocation has included car parking allocation to be consistent with the AHSEPP for the affordable housing component and the DCP for the standard units. The hybrid use of AHSEPP and DCP parking rates is reasonable on this site given its regional location. The proposed development as amended remains consistent with the standard set out in the SEPP.

3.6 Parking and Access

The proposed development's vehicular access is from McKay Avenue via a two-way basement ramp. The ramp is located in the position of an existing driveway. It is at a low part of the site, away from the corner. It is also positioned near the B2 Local Centre Zone and away from the lower density R3 Medium Density Zone to the

north. While a slightly lower level occurs at the north-west corner of the site, this area is taken up for necessary stormwater detention.

103 car parking spaces are proposed over 2 basement levels. The allocation of parking spaces is:

- 26 resident spaces (3 accessible spaces included) for affordable housing component
- 64 resident space (3 accessible spaces included) for other housing component
- 12 visitor's spaces (no accessible spaces included).

25 bicycle spaces are provided in the basement for use by residents.

3.7 Waste Collection

Corridors on each residential level have an individual waste room for residents to dispose of their waste. The building manager will be responsible for transporting waste to the communal waste room in the basement. Waste collection is proposed kerbside. The building manager will also be responsible for transporting bins to the kerb on collection day and returning them after collection.

3.8 Schedule of Finishes

A schedule of finishes is provided as part of the architectural drawing package. The schedule includes the use of attractive materials including a combination of solid and glass balustrades to protect privacy and reduce visual clutter in the street. Finishes are varied across facades to achieve visual interest. Paint and render is limited.

3.9 Landscaping and Open Space

A landscape concept has been prepared by Michael Sui Landscape Architects. The design includes landscaped communal open space at ground level and at roof level coupled with a variety of features such as seating, BBQ facilities and feature planting. A total 1,030 m² of deep soil planting is included on ground level split between the common open space areas and street setbacks. Landscape in planters is also proposed above the basement car park between the buildings to extend the common open space and soften built form. A rooftop garden is also proposed with green roof elements. This will add further significant amenity to the development and also mitigate potential urban heat island impacts.

An indicated public domain treatment is indicated on the plans including footpaths. Existing street trees are protected.

Deep soil in the amended proposal remains consistent with SEPP65 and the AHSEPP.

4 The Amended Application

4.1 Table of Drawings

Studio Rhizome has prepared the following architectural drawings for the proposal:

DA-33	Materials and Finishes	C	NTS	A3
DA-34	Shadow Analysis-01 (June)	B	1:800	A2
DA-34a	Shadow Analysis-01 (June)	B	1:800	A2
DA-35	Shadow Analysis-02 (Sept)	B	1:800	A2
DA-35a	Shadow Analysis-02 (Sept)	B	1:800	A2
DA-36	Proposed Deep Root Zones (DRZs)	B	1:200	A2
DA-37	Solar & CV-01	E	As Shown	A3
DA-38	Solar & CV-02	F	As Shown	A3
DA-39	Solar & CV-03	B	As Shown	A3
DA-40	Solar & CV-04	F	As Shown	A3
DA-41	SEPP AH Units Allocation	B	As Shown	A3
DA-42	Storage	A	As Shown	A3
DA-43	Plenum Detail	A	As Shown	A3

	Additional Works			
DA-100	Streetscape - Lucas Avenue	C	NTS	NA
DA-101	Streetscape - Harvey Avenue	C	NTS	NA
DA-102	Streetscape - McKay Avenue	C	NTS	NA
DA-110	Concept Landscape (Artist's Impression)	A	NA	NA
DA-115	Streetscape - Concept Building Massing	A	NA	NA
DA-120	SEPP AH Compliance Diagrams - Site Accessibility	A	NA	A2
160483/001	Plan Showing Walking Distance To Bus Stop On Newbridge Road	A	NA	A1
DA-125	Architectural Roof Feature	A	As Shown	A2
	Reports			
R-01	Development Brief for Council and For DEP	A	NA	A4
R-02	Market Study / Market Response For Development Application	A	NA	A4

List of Drawings and Documents				
S.No.	Description	Rev.	Scale	Page
DA-01	Title	C	NTS	A3
DA-02	Photomontage Sheet-01	C	NTS	A3
DA-02a	Photomontage Sheet-02	C	NTS	A3
DA-03	Photomontage Sheet-03	C	NTS	A3
DA-03	Photomontage Sheet-04	B	NTS	A3
DA-04	Site Photos 01	A	NTS	A3
DA-04	Site Photos 02	A	NTS	A3
DA-05	Project Summary	C	NTS	A3
DA-06	Site Analysis Sheet-01	A	NTS	A3
DA-06	Site Analysis Sheet-02	A	NTS	A3
DA-06	Site Analysis Sheet-03	A	NTS	A3
DA-07	Site Analysis MS-01	A	NTS	A3
DA-08	Site Analysis MS-02	A	NTS	A3
DA-09	Site Analysis MS-03	A	NTS	A3
DA-10	Site Plan-01	C	1:200	A2
DA-11	Site Plan-02 (BASIX)	B	1:200	A2
DA-12	Demolition Plan	C	As Shown	A3
DA-13	Left Blank	NA	NA	NA
DA-14	Amalgamation Plan	B	1:400	A3
DA-15	Sediment Control Plan	C	As Shown	A3
DA-16	Proposed Plan GF	E	1:200	A2
DA-16a	Proposed Plan GF (without landscape)	F	1:200	A2
DA-17	Proposed Plan L01-03	F	1:200	A2
DA-18	Proposed Plan L04	D	1:200	A2
DA-19	Proposed Plan Roof	D	1:200	A2
DA-19a	Visual Privacy Correlation (Harvey Av)	B	1:200	A2
DA-19b	Visual Privacy Correlation (Harvey Av)	B	1:200	A2
DA-20	Proposed Car Park-01	E	1:200	A2
DA-21	Proposed Car Park-02	D	1:200	A2
DA-22	Communal Open Space	B	1:400	A3
DA-23	GFA Plan Sheet-01	C	1:400	A3
DA-23	GFA Plan Sheet-02	C	1:400	A3
DA-23	GFA Plan Sheet-03	A	1:400	A3
DA-24	Proposed Elevation-01	E	1:200	A3
DA-25	Proposed Elevation-02	E	1:200	A3
DA-26	Proposed Elevation-03	E	1:200	A3
DA-27	Proposed Elevation-04	E	1:200	A3
DA-28	Section-A	C	1:200	A3
DA-29	Section-B	C	1:200	A3
DA-30a	Landscape Sections For DRZs -01	B	1:100	A3
DA-30b	Landscape Sections For DRZs -02	B	1:100	A3
DA-31	Facade Sections	B	1:20	A3
DA-31a	Facade Sections	A	1:20	A3
DA-32	Adaptable units	D	As Shown	A3

4.2 Supplementary Reports and Plans

The following items form part of the Development Application (in alphabetical order):

REPORT/PLANS	CONSULTANT	VERSION
Accessibility	Accessibility Solutions	As lodged
Acoustics	Renzo Tonin Associates	As lodged
Arborist	Advanced Treescape Consulting	As lodged
Amended BASIX	Damian O'Toole Town Planning	Amended 2020
BCA	AED Group	As lodged
Building Services (Coordination Only)	Floth Engineers	As lodged
Contamination (Phase 1 Assessment)	Alliance Geotechnical	As lodged
Geotechnical	Alliance Geotechnical	As lodged
Amended Landscape Plans	Michael Siu Landscape Architects	Amended 2020
Amended SEPP 65 Design Verification Statement	Studio Rhizome	Amended 2020
Statement of Environmental Effects	Studio Rhizome	As Lodged
- Clause 4.6 Variation Request	Studio Rhizome	Amended 2020
Addendum Statement of Environmental Effects	Studio Rhizome	New Report 2020
Amended Stormwater Management Plans	ACE Civil and Hydraulic Engineers	Amended 2020
Quantity Surveyor	Archi QS	As Lodged
Social Impact Comment	Studio Rhizome	As Lodged
Surveyor	RGM Property Surveys	As Lodged
Amended Traffic Impact Statement	SafeWay Traffic Management Solutions	Amended 2019
New Ongoing Waste Management Plan	Lid Consulting	New Report 2019
Waste Management Plan	Lid Consulting	Amended Report 2019
Wind and Ventilation	Windtech	As Lodged

4.3 Relevant Statutory Instruments

The proposal has been assessed having regard to the relevant matters for consideration under Section 4.15 of the *Environmental Planning & Assessment Act 1979* and the relevant State and Local Government planning controls summarised below.

4.3.1 State Planning Controls

The relevant SEPPs are as follows:

- SEPP (Affordable Rental Housing) 2009
- SEPP BASIX (Building Sustainability Index: **BASIX**) 2004
- SEPP 65 – Design Quality of Residential Flat Buildings
- SEPP 55 – Remediation of Land
- SEPP (Infrastructure) 2007

4.3.2 Local Government Planning Controls

The relevant Local Government Environmental Planning Instruments that applies to the site are:

- Liverpool Local Environmental Plan 2008

4.3.3 Local Government Planning Guidelines and Policies

- Liverpool Development Control Plan 2008

4.4 Schedule of Amendments (Compared to Originally As-Lodged Scheme)

The list of amendments below focuses on the core plans and does not include changes to analysis drawings that arise as a product of changes to the design as for example to the GFA calculation plans, etc. Changes to the design metrics however, are still covered in this report.

Demolition Plan (DA12)

1. Plan updated to clarify all existing trees on the site or near the site to be retained including the tree at Harvey Avenue.
2. Trees proposed to be removed on the subject site clarified.
3. Note clarification that existing vehicle crossing to be removed and new crossing to be constructed as per Council's standards.

Car Park 01

1. Waste room configuration amended.
2. Fire stair egress adjusted to accommodate waste room changes.
3. Ramp width reduced to increase landscape at ground level.
4. Disabled parking relocated as per access consultant's recommendations (no change in number of disabled spaces)
5. Bulky waste area added.
6. Storage spaces detailed to show individual storage cages.
7. Car parking spaces relocated from near waste room.
8. Motorcycle parking relocated to be consolidated in one area.

Car Park 02

1. Number of disabled parking spaces increased by 2.
2. Column positions changed, resulting in minor adjustment to parking space location.
3. Storage spaces detailed to show individual storage cages.

Ground Floor (DA 16)

1. Tree near Harvey Avenue protected and retained
2. Façade feature projection lines added.
3. Colour coding added to indicate unit types.
4. Furniture layouts in units adjusted to respond to DEP comments
5. Changes to reflect changes to elevations design
6. Driveway width reduced and landscape buffer created between Unit 013 and driveway.
7. Proposed tree at northwest corner of site shifted towards building to accommodate stormwater infrastructure.
8. Lift lobby widened to improve entry response.
9. Furniture in lobby and common circulation spaces indicated.
10. Unit 001, layout of living room and toilet adjusted to meet access consultant's advice for adaptable unit design, total unit size decreased by 1 sqm.
11. Unit 002, layout adjusted to place living room at north west corner of unit to satisfy DEP comments.
12. Unit 003, unit width reduced to increase size of Unit 004 living room. Laundry and bathroom layout amended and total unit size reduced by 1 sqm.
13. Unit 004, layout adjusted to make it a silver living unit, living area widened to 4.2 m minimum resulting in increase in unit size of 1 sqm.
14. Unit 005, kitchen layout changed to create larger dining area. Storage and laundry reconfigured.
15. Unit 006, Unit made adaptable, laundry relocated, kitchen layout adjusted, living room size increased, bathroom layout amended and master bedroom increased in size. Blade wall removed at exterior of unit to reduce vertical elements as per DEP comments. Unit size reduced by 1 sqm.
16. Unit 007, Private Open Space adjusted to reduce number of steps in façade.
17. Unit 008, modified layout from adaptable to silver living unit.
18. Unit 009, bedrooms reduced in size to increase size of living room.
19. Unit 011, living room size increased by adjusting kitchen, bedroom and laundry size
20. Unit 012, bedroom reduced in size to increase living room size, unit size increased by 1 sqm
21. Unit 013, Living room size increased by reducing width of bedroom.
22. Unit 014, laundry relocated to make kitchen larger, unit size increased by 1 sqm
23. Unit 015, master bedroom reduced and kitchen relocated to create larger living room. Adaptable designation deleted (Unit 006 made adaptable instead).
24. Unit 016, reduced in depth to increase lobby width, unit size decreased by 1 sqm, column in POS removed to maximise usability and reduce vertical façade elements as per DEP comments.

Level 1-3 (DA17)

1. Façade feature projection lines added.
2. Colour coding added to indicate unit types.

3. All glass balustrades clarified as frosted glass.
4. Furniture layouts in units adjusted to respond to DEP comments
5. Lift lobby widened to improve amenity.
6. Furniture in lobby and common circulation spaces indicated.
7. Unit 101, layout of living room and toilet adjusted to meet access consultant's advice for adaptable unit design, total unit size decreased by 1 sqm, glass balustrade changed to solid balustrade and balcony widened to reduce vertical elements in façade.
8. Unit 102, layout adjusted to place living room at north west corner of unit to satisfy DEP comments.
9. Unit 103, unit width reduced to increase size of Unit 004 living room. Laundry and bathroom layout amended, high level window added to southern wall of living room to improve daylighting and natural ventilation. Glass balustrade modified to solid balustrade. Total unit size reduced from 74 m² to 71 m².
10. Unit 104, layout adjusted to make it a silver living unit, living area widened to 4.2 m minimum resulting in increase in unit size of 1 sqm. Glass balustrade modified to solid balustrade. Part of the balustrade near the corner increased in height to 1.5 m to limit overlooking across the street.
11. Unit 105, kitchen layout changed to create larger dining area. Storage and laundry reconfigured. Portion of glass balustrade modified to solid balustrade.
12. Unit 106, Unit made adaptable, laundry relocated, kitchen layout adjusted, living room size increased, bathroom layout amended and master bedroom increased in size. Unit size reduced by 1 sqm. Blade wall removed at exterior of unit to reduce vertical elements as per DEP comments. Balcony size increased from 10 m² to 12 m². Glass balustrade modified to solid balustrade.
13. Unit 107, Private Open Space extended to blade wall to eliminate vertical façade elements to address DEP comments. Glass balustrade modified to solid balustrade.
14. Unit 108, modified layout from adaptable to silver living unit. Glass balustrade modified to solid balustrade.
15. Unit 109, bedrooms reduced in size to increase size of living room. Balcony size increased from 10m² to 11 m², glass balustrade modified to solid balustrade.
16. Unit 111, living room size increased by adjusting kitchen, bedroom and laundry size
17. Unit 112, bedroom reduced in size to increase living room size, unit size increased by 1 sqm, glass balustrade modified to solid balustrade.
18. Unit 113, Living room size increased by reducing width of bedroom.
19. Unit 114, laundry relocated to make kitchen larger, unit size increased by 1 sqm
20. Unit 115, master bedroom reduced and kitchen relocated to create larger living room. Adaptable designation deleted (Unit 106 made adaptable instead).
21. Unit 116, reduced in depth to increase lobby width, unit size decreased by 1 sqm. Column in POS removed to reduce vertical façade elements as per DEP comments

Level 4 (DA18)

1. Façade feature projection lines added.
2. Colour coding added to indicate unit types.
3. All glass balustrades clarified as frosted glass.
4. Furniture layouts in units adjusted to respond to DEP comments
5. Lift lobby widened to improve amenity.
6. Stair climbers to rooftop communal open space removed and lift extended to roof level.

7. Furniture in lobby and common circulation spaces indicated.
8. Vertical blade walls facing north removed to limit vertical elements in the façade as per DEP comments.
9. Unit 401, balcony facing street increased in width, glass balustrade changed to solid balustrade. Master bedroom reduced in size, ensuite repositioned and walk-in robe added. Bedroom 1 reduced in size to increase living room size and bathroom and laundry redesigned to increased living room and kitchen size. West facing balcony balustrade changed from glass to solid and post added to support roof.
22. Unit 403, unit width reduced to increase size of Unit 004 living room. Laundry and bathroom layout amended, high level window added to southern wall of living room to improve daylighting and natural ventilation. Glass balustrade modified to solid balustrade. Total unit size reduced from 74 m² to 71 m².
23. Unit 404, layout adjusted to make it a silver living unit, living area widened to 4.2 m minimum resulting in increase in unit size of 1 sqm. Glass balustrade modified to solid balustrade. Part of the balustrade near the corner increased in height to 1.5 m to limit overlooking across the street.
24. Unit 405, kitchen layout changed from U-shape to L-shape to make living area larger. Storage and laundry reconfigured. Portion of glass balustrade modified to solid balustrade. Bathroom layout adjusted. Unit size decreased from 73 m² to 70m².
25. Unit 406, Unit made adaptable, laundry relocated, kitchen layout adjusted, living room size increased, bathroom layout amended and master bedroom increased in size. Unit size reduced by 1 sqm. Blade wall removed at exterior of unit to reduce vertical elements as per DEP comments. Balcony size increased from 10 m² to 12 m². Glass balustrade modified to solid balustrade.
26. Unit 407, balcony extended to blade wall to eliminate vertical façade elements to address DEP comments. Glass balustrade modified to solid balustrade.
27. Unit 408, modified layout from adaptable to silver living unit. Glass balustrade modified to solid balustrade.
10. Unit 409, Vertical blade walls removed to limit vertical elements in façade as per DEP comments. Glass balustrade modified to solid balustrade. Unit size decreased from 80 m² to 79 m² to increase lobby width. Internal layout modified including relocated kitchen, bedroom 1 size reduction to increase living room area, master bedroom reduced in size to increase bathroom and ensuite space and laundry reduced.
11. Unit 410, unit layout reconfigured to increase living area. Glass balustrade changed to solid balustrade.
12. Unit 411, Master bedroom size reduced, ensuite, bathroom and laundry redesigned, kitchen relocated to increase the living room area. Bedroom 1 and 2 decreased to increase living room size. Northern wall of Bedroom 1 shifted south slightly to increase balcony size. Unit size decreased from 100 m² to 99 m². Balcony size increase from 12 m² to 18 m². Posts added to balcony edge to support roof above. Balustrade changed from glass to solid.
13. Southern façade setback to McKay Avenue increased by 980 mm to distinguish the top storey from the levels below and create surface difference for the top storey as per DEP comments.
14. Unit 412, layout adjusted to increase living room size. Unit size reduced from 100 m² to 96 m², balustrade changed from glass to combination solid and glass balustrade.
15. Unit 413, Southern wall setback further from street by 980 mm. Unit area reduced from 103 m² to 95m². Balustrade changed from glass to solid. Structural posts added to support roof. Balcony size reduced from 18 m² to 14m². Internal layout adjusted to respond to increase building setback.

Roof Plan (DA19)

1. Life overrun extended to roof level to maximise equitable access to COS.
2. Landscape design shown on rooftop garden areas.
3. Roof garden elements adjusted to increase soft landscaped area at roof level.
4. Landscape plan prepared by Michael Sui Landscape Architects showing planter box details and planting schedule provided.
5. Green roof area (non-trafficable) added to western portion of Tower 2.
6. Position of BBQ and seating adjusted.
7. Parapet levels added to roof.

Elevations

- The elevation design has been amended to respond to the DEP comments regarding design quality including the balance of horizontal and vertical elements and in particular the design of the top level of the building.
- The panel commented that the building appeared to lack a clear top element and appears “cut off”. The amended elevations have adjusted the materials and parapet of the uppermost level to “cap” the building.
- Innwood wood-look cladding has been eliminated from the materials palette.

4.1 Discussion of Planning Matters Arising during DA Assessment

4.1.1 Building Height

The DA as lodged has a height non-compliance arising at the rooftop garden features including the balustrade of the COS and the pergolas associated with the gardens. Stair climbers were proposed to open stairs up to roof level to make them accessible without increasing the building height by extending the lift to the roof. The DEP supported bringing the lift to the roof and the design has been amended as such. The maximum building height has therefore increased. The overrun shall not be readily visible, however. The lift is setback from the building edge and screened by the proposed roof garden shade structures. The extension of the lift, while increasing the maximum RL height of the building, does not give rise to any material effect or adverse environmental impact. The overrun height allows for the rooftop to be easily accessed by persons with a mobility impairment and directly contributes to the amenity of the development. An amended Clause 4.6 variation request forms part of this submission.

4.1.2 Waste

After consultation with Council’s waste services officer, it was agreed that Council will collect waste kerbside in 660 L bins. The waste room at Carpark Level 1 has been amended to accommodate the transfer of waste from the 240L bins used throughout the building to 660 L bins within the basement. The 660L bins will be transferred to the kerb by building management and collected kerbside by Council. A bulky waste room is also provided at Car Park Level 1. Composting is also provided for residents.

4.1.3 Privacy to 59 Lucas Street

Council raised concern regarding potential privacy impacts from the balconies of Units 104-404 on the dwellings to the north across Harvey Avenue (No. 59 Lucas Avenue). No. 59 Lucas Avenue situates a part of its private open space at the corner of Harvey Avenue and Lucas Avenue, facing north. Orienting the balcony to the north has a significant benefit to the amenity of the proposed units. The proposed balconies are a minimum of 26.6 m to the site boundary of No. 59 Lucas Avenue.

The ADG seeks building separations of 12 m up to 4 storeys and 18 m above 4 storeys. The ADG also sets out a guidance of an additional 3 m separation at a zone boundary interface. This would mean that a total separation of 15 m for the first four storeys of the building and a separation of 21 m for the upper storeys of the building would be sufficient to meet the ADG's visual privacy objectives, criteria and guidance to protect the amenity of neighbours. The proposed balconies are setback well in excess of the ADG recommended separations at a minimum of 26.6 m. The view will also be filtered by the proposed landscape tree planting in the front setback of the building just forward of Unit G04-404. To further protect from perceived views towards No. 59 Lucas Avenue, a portion of the proposed balustrade of the balcony has been raised to 1.5 m in height to block views between the POS of the proposed development and No. 59. No adverse privacy impacts shall arise at this interface.

4.1.4 Unit 002, 102, 302 and 402 design.

The Design Review Panel's desktop review comments stated the following in regard to the layout of unit 002, 102, 302 and 402.

"The serrated N/W wall of units 002, 102, 202, 302, does not appear to be helping these units with solar access, planning flexibility or apartment separation. The panel recommends replanning these units with their living spaces in the N/W corner enjoying a dual aspect. Bed 1 and bathroom could go along the common wall with unit 001. This is not critical but please explore this suggestion. (Email, Adam Flynn, 2 June 2020)"

The unit layout has been adjusted placing the living room at the wester corner of the unit. Bedroom 1 has been located to the common wall with unit 001 as suggested. There was insufficient space to relocate the bathroom to this wall. The proposed living room has a minimum dimension of 4 m, and the length of glazing has been maximised to maximize daylighting to the unit. The revised layout creates a generous corner balcony oriented out towards the ground level Common Open Space. The revised balcony has a dual aspect in contrast to the as-lodged balcony which faced south towards Tower 1. Given the more open form of the proposed corner balcony, angled privacy louvres are proposed on the south facing secondary window to Unit 005 to avoid any potential cross-views. The serrated edge of the unit has been retained as it provides better views out towards the COS and away from the egress from the lobby of Tower 2 to the COS. The revised unit layout therefore achieves better amenity overall while avoiding adverse impacts on other units in the development.

4.1.5 Natural Cross Ventilation

Council sought clarification on 29/7/2019 regarding the use of plenums to achieve cross-ventilation for several of the units in the development. DA37 has been amended clarify that the development does not rely on plenums to achieve compliance with the ADG criteria of 60% of units to be cross-ventilated. 48 of the 76 units or 63% are naturally cross-ventilated via a dual aspect.

The plenum system is used to further enhance ventilation for an additional 13 units, bringing the total number of units cross-ventilated to 80% of units. An assessment of the effectiveness of the plenum to provide natural ventilation was undertaken by Windtech, date 23 July 2018. The assessment finds the plenum shall be effective where it is opposite or orthogonal to the dwelling and where the opening is at least 0.4 m². The plenums are indicated on the elevations and plenum detail is provided in the architectural set to demonstrate consistency with the Windtech advice.

4.1.6 Deep soil zone

The proposed amendments have not reduced the deep soil zone areas meeting the stated minimum dimensions and the proposal still satisfies the SEPPAH and SEPP65.

4.1.7 Affordable Housing Distribution

The proposal relies on an FSR bonus under the SEPP (ARH) 2009 of 0.39:1. DA41 provides a schedule of which units are to be dedicated to affordable housing with a total of 28 units proposed. The units designated are distributed throughout the development and a mix of units is provided as suggested by Council.

5 Environmental Assessment

5.1 Objectives of the Act

The proposed development satisfies the objects of the EP&A Act 1979. The proposal as amended does not give rise to unacceptable adverse impacts.

5.2 Matters for Consideration

The following sections of this report address the Matters of Consideration as outlined in Section 4.15 (see below) of the *Environmental Planning and Assessment Act 1979* (as amended).

5.3 Environmental Planning Instruments [EPIs]

5.3.1 State & Regional Planning Controls

5.3.1.1 SEPP Infrastructure 2007 (ISEPP)

Clause 104 of the ISEPP relates to “traffic generating development” that is development listed in Schedule 3. The proposal qualifies as traffic generating development (having greater than 75 dwellings or more than 50 car spaces where it adjoins a road that connects to a classified road).

A traffic and parking assessment forms part of the application and finds that the proposed development does not give rise to unacceptable adverse impacts.

5.3.1.2 SEPP (Affordable Rental Housing) 2009

The proposal seeks consideration under Division 1 of the SEPP, providing 28 units as affordable housing for 10 years. The modified application has adjusted which units are allocated for affordable housing.

As per Clause 15, SEPP 65 is to be considered instead of the *Seniors Living Policy*.

The proposal is generally consistent with the standards set out in the SEPP for Infill Affordable Rental Housing in regard to minimum dwelling sizes and car parking. Clause 14, the standards that cannot be used to refuse consent have been considered in the application. It is noted that the proposed development, being a residential flat building seeks consideration under SEPP 65 with regard to solar access by achieving 2 hours direct solar access. Given the SEPP (Affordable Rental Housing) 2009 solar access standard fall under the Clause regarding “Standards which cannot be used to refuse consent” rather than a non-discretionary standard, we seek Council’s consideration that two hours solar access achieve an acceptable standard of amenity in this case. The site’s particular orientation in relation to true north means that opportunities to capture northern sun are limited and units facing Lucas Avenue and McKay Avenue are not able to achieve 2 hours solar access. Every effort has been made to maximise solar access while aligning built form to the street and achieving casual surveillance of the

public domain. The proposed development is compatible with the existing character of the area and consistent with the desired future character of the area, thus satisfying the character test under Clause 16A.

An assessment against the SEPP Affordable Rental Housing 2009 is provided in the table below.

Table 1: SEPPAH Compliance Table		
Control	Assessment/Comment	Compliance (✓/x)
10 Development to which Division applies		
<p>(1) This Division applies to development for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if:</p> <p>(a) the development concerned is permitted with consent under another environmental planning instrument, and</p> <p>(b) the development is on land that does not contain a heritage item that is identified in an environmental planning instrument, or an interim heritage order or on the State Heritage Register under the Heritage Act 1977.</p>	<p>Residential Flat Building Development Proposed and permissible with consent under LLEP 2008</p> <p>The site is not heritage listed and is not subject to an interim heritage order.</p>	<p>✓</p> <p>✓</p>
<p>(2) Despite subclause (1), this Division does not apply to development on land in the Sydney region unless all or part of the development is within an accessible area.</p>	<p>The site is within 400 metres walking distance of a bus stop used by a regular bus service (within the meaning of the Passenger Transport Act 1990) that has at least one bus per hour servicing the bus stop between 06.00 and 21.00 each day from Monday to Friday (both days inclusive) and between 08.00 and 18.00 on each Saturday and Sunday. This is satisfied by the Bus Stop at Newbridge Road which is 400 m walking distance from the subject site via Ascot Street, the Dredge Pathway and Regan Park.</p> <p>It is also noted the site is within 400 m walking distance of bus stops on Maddecks Avenue and Nuwarra Road which have bus services which meet the frequency criteria when considered in combination.</p>	<p>✓</p>

<p>13 Floor space ratios</p> <p>This clause applies to development to which this Division applies if the percentage of the gross floor area of the development that is to be used for the purposes of affordable housing is at least 20 per cent.</p>	<p>39% of the gross floor area of the development shall be used for affordable housing.</p>	✓
<p>(2) The maximum floor space ratio for the development to which this clause applies is the existing maximum floor space ratio for any form of residential accommodation permitted on the land on which the development is to occur, plus:</p> <p>(a) if the existing maximum floor space ratio is 2.5:1 or less:</p> <p>(i) 0.5:1—if the percentage of the gross floor area of the development that is used for affordable housing is 50 per cent or higher, or</p> <p>(ii) Y:1—if the percentage of the gross floor area of the development that is used for affordable housing is less than 50 per cent,</p>	<p>A 0.39:1 bonus is proposed in accordance with this clause resulting in a total FSR of 1.59:1 by utilising 39% of the proposal for affordable housing.</p>	✓
14 Standards that cannot be used to refuse consent		
<p>(b) site area if the site area on which it is proposed to carry out the development is at least 450 square metres,</p>	<p>The site area is 3,655.78 m²</p>	✓
<p>(c) landscaped area if:</p> <p>(ii) in any other case—at least 30 per cent of the site area is to be landscaped,</p>	<p>At least 30% of the site is landscaped</p>	✓
<p>(d) deep soil zones if, in relation to that part of the site area (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) that is not built on, paved or otherwise sealed:</p> <p>(i) there is soil of a sufficient depth to support the growth of trees and shrubs on an area of not less than 15 per cent of the site area (the <i>deep soil zone</i>), and</p> <p>(ii) each area forming part of the deep soil zone has a minimum dimension of 3 metres, and</p> <p>(iii) if practicable, at least two-thirds of the deep soil zone is located at the rear of the site area,</p>	<p>At Least 15% of site is deep soil with a minimum dimension of 3 m.</p>	✓

<p>(e) solar access if living rooms and private open spaces for a minimum of 70 per cent of the dwellings of the development receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid-winter.</p>	<p>It is noted that SEPP 65 allows for solar access in Metropolitan Sydney to achieve 2 hours direct solar access in midwinter between 9am and 3pm</p> <p>The proposed development achieves 55% with 3 hours solar access and 71% with 2 hours solar access, satisfying SEPP 65. The site orientation makes it very difficult to achieve 3 hours solar access for 70% of units because the site has its narrowest frontage facing north. The longest frontage faces and the existing subdivision pattern is oriented such that if the building aligns with the street, which is desirable, no east facing apartment can achieve 2 hours sunlight in midwinter. The proposed design therefore orients most units north and west. Layouts seek to position balconies in front of living rooms to maximise the usability of the balcony. The balcony also acts as a passive solar element allowing solar penetration in winter but blocking higher angle summer sun.</p>	✓
<p>(a) parking if: (ii) in any other case—at least 0.5 parking spaces are provided for each dwelling containing 1 bedroom, at least 1 parking space is provided for each dwelling containing 2 bedrooms and at least 1.5 parking spaces are provided for each dwelling containing 3 or more bedrooms,</p>	<p>The affordable housing units require 26 parking spaces. 26 parking spaces are allocated to the affordable housing units. Overall the proposal provided 103 spaces which satisfies the SEPP also.</p>	✓
<p>(b) dwelling size if each dwelling has a gross floor area of at least: (i) 35 square metres in the case of a bedsitter or studio, or (ii) 50 square metres in the case of a dwelling having 1 bedroom, or (iii) 70 square metres in the case of a dwelling having 2 bedrooms, or (iv) 95 square metres in the case of a dwelling having 3 or more bedrooms.</p>	<p>Each dwelling meets the minimum sizes</p>	✓
<p>(3) A consent authority may consent to development to which this Division applies</p>	<p>Consent is sought even though the proposed does not comply with solar access</p>	✓

whether or not the development complies with the standards set out in subclause (1) or (2).	requirements. Although 3 hours of direct solar access is not achieved, the proposal demonstrates good amenity with regard to solar access that is consistent with the Apartment Design Guide criteria.	
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5.3.1.3 SEPP BASIX (Building Sustainability Index: BASIX) 2004

An amended BASIX certificate forms part of this application and demonstrates the proposed development satisfies the provisions of the SEPP BASIX (Building Sustainability Index: BASIX) 2004.

5.3.1.4 SEPP 65 – Design Quality of Residential Flat Buildings

Clause 28(1) requires the consent authority to obtain the advice of the relevant Design Review Panel prior to consent, if any such Panel exists. It is assumed the application will be referred back to the Design Excellence Panel during assessment. Pre-DA consultation has already occurred and a response to the meeting minutes forms part of the application.

Clause 28(2) requires that the consent authority, in determining a development application, is to take into consideration”:

- *The advice of any design review panel*
- *The design quality of the development when evaluated against the design quality principles and*
- *The Apartment Design Guide.*

Assessment against the Design Quality Principles of the SEPP and the Apartment Design Guide is set out in the Design Verification Statement forming part of this application. The development complies with the 9 Design Quality Principles set out in SEPP 65 and the Architect has made every effort to comply with the objectives, criteria and guidance set out in the Apartment Design Guide.

In summary, design quality is an objective at the forefront of this design and Studio Rhizome delivers what is considered a development consistent with the Apartment Design Guide. Where variations are proposed to suggested Acceptable Solutions or Criteria, the objective of each provision has been addressed accordingly in the assessment table. Studio Rhizome has focused on redesign of the proposal to address the Panel’s advice and comments and these adjustments have improved the overall design quality and residential amenity of the proposal.

5.3.1.5 SEPP 55 – Remediation of Land

The site is historically residentially zoned and is not in close proximity to polluting uses. It is unlikely the site is contaminated and is considered that SEPP 55 is satisfied. A phase 1 contamination assessment by Allied Geotechnical forms part of the application which finds the potential for domestic contamination on the site for

materials such as lead paint or asbestos and that the site is generally suitable for the proposed use. Further investigation is recommended at the demolition phase.

5.3.2 Local Government Planning Controls

The relevant Local Government Environmental Planning Instruments that applies to the site are:

- Liverpool Local Environmental Plan 2008

The Local Environmental Plan 2008 (LLEP 2008) continues to apply to the site. Pursuant to LLEP 2008 the site is zoned R4-High Density Residential (Refer to the Figure below).

5.3.2.1 Zone Objectives

The Objectives of the Zone are:

- *To provide for the housing needs of the community within a high density residential environment.*
- *To provide a variety of housing types within a high density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To provide for a high concentration of housing with good access to transport, services and facilities.*
- *To minimise the fragmentation of land that would prevent the achievement of high density residential development.*

The proposed development as amended is consistent with each of the objectives. The proposal is for high density apartment living with an affordable housing component. The site is within walking distance of public transport and a local centre where day-to-day needs can be met. The subject site is located on a corner and achieves the amalgamation of four existing allotments, meeting the minimum lot size, minimum frontage and minimum lot width requirements set out in the LEP.

5.3.2.2 Proposed Land Use

The amended proposal is defined as two Residential Flat Buildings. As per the LEP the definition of Residential Flat Building is as follows:

residential flat building means a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing.

Residential Flat Buildings are permissible with consent in the zone.

5.3.2.3 Other LEP Provisions

The proposed development complies with the relevant LEP standards with the exception of Clause 4.3. A Clause 4.6 Exceptions to Development Standards justification forms part of this application as a separate report to this

Addendum Statement of Environmental Effects. The as-lodged SEE provides a full assessment of how the proposal satisfies the LEP.

5.4 Local Government Planning Guidelines and Policies

- Liverpool Development Control Plan 2008

The Liverpool Development Control Plan 2008 is a comprehensive DCP that considers all types of development. The DCP includes provisions specific to Residential Flat Buildings in R4 zones (Part 3.7). With the 2015 amendment to SEPP65 and the introduction to the Apartment Design Guide (ADG) some of the residential controls have no effect. A compliance table against the DCP was provided as an appendix to the as-lodged SEE. Where the amended proposal changes the proposal's compliance the DCP, it is described in Part 4 of this report.

5.1 Impacts

The as-lodged SEE provides an assessment of the potential environmental, amenity, social and economic impacts that arise from the proposed development and how those impacts are mitigated. Where the proposed amendments have bearing on potential impacts, they have been discussed in Section 4 of this report.

6 Site Suitability

The site is suitable for the proposed development as demonstrated by the technical reports provided as part of the application.

The following provides a summary of the suitability of the site for the proposed development:

- The proposal complies with the intent and objectives of the LEP.
- The site is not flood or acid sulphate soil impacted.
- Flora and Fauna impacts and Bushfire do not affect the site.
- The redevelopment of the site does not give rise to an isolated site.
- The development contributes to the much-needed housing stock within the region.
- The proposed development has the potential to stimulate further development in the vicinity.
- The subject site is located within close proximity to public transport.
- The site is within walking distance of public open space areas.
- The site is adjacent to the local centre and in proximity to employment areas.
- The site has access to all necessary infrastructure.
- The proximity of the site to public transport, infrastructure and services will promote use of public transport and alternative means of accessing services than using a private car (e.g. walking and bicycling).

7 The Public Interest

This report is submitted in support of the development application for development of residential flat building. The proposal represents suitable utilisation of the site with its close proximity to services. Being one of the first high density residential developments in the area, the proposal represents a high quality architectural solution and very suitable for the site, capturing Council's future desired character for the area as set out in the LEP.

As such the development application is in the public interest as it will provide for:

- Achievement of State Policies promoting infill development on urban land, particularly on sites with good access to public transport infrastructure;
- An opportunity to provide higher densities in close proximity to public transport infrastructure and facilities;
- An opportunity to provide high quality facade design in the local area in close proximity to public transport infrastructure and facilities.
- The proposal contributes to affordable rental housing.
- Contribution to the diversity and choice of housing in the area with a range of dwelling sizes.
- The development includes landscaping and tree plantings to enhance the streetscape.
- The proposal provides large areas of communal open space.
- The proposed development complies with standards and guidelines for future traffic generation and impacts on the road network.
- The proposed development maintains sufficient solar access to neighbouring buildings and does not unreasonably overshadow public open spaces and reserves.

Given these locational, design and development attributes, it is recommended that Council support the proposal by granting consent to the development application.