STATEMENT OF ENVIRONMENTAL EFFECTS

GAT & Associates
Town Planners
BASIX/Energy Assessors
ABGR Assessors

Demolition of all existing structures and the development of a residential flat building comprising of two x four storey buildings, containing a total of 64 units, to be wholly used for the purposes of affordable housing. The proposal also seeks the Torrens Title subdivision of the site into two lots.

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Cartwright

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1.0 INTRODUCTION

This Statement of Environmental Effects has been prepared in support of a development application to Liverpool City Council for the demolition of all existing structures and the development of a residential flat building comprising of two x four storey buildings on land known as 12 – 22 Willan Drive, Cartwright. The proposed development will provide for a total of 64 units, all of which will be used for the purposes of affordable rental housing under the management of St George Community Housing. The proposal further seeks the Torrens Title subdivision of the land into two allotments with one building located upon each allotment and a shared driveway arrangement.

Our clients are a dedicated not for profit organisation who seek to provide high quality, affordable residential housing options. In their research, they have identified a growing demand for affordable residential accommodation within the Liverpool local government area.

This application follows a Design Excellence Panel meeting held on the 16 March 2017. At the time of the meeting, the design scheme had been prepared with respect to Nos. 18 – 22 Willan Drive, Cartwright only. Since this time, our client has come to acquire the land located at 12 – 16 Willan Drive, Cartwright and accordingly the development scope has expanded to incorporate all six properties.

The current plans have made regard to the comments raised by the Panel members during the March meeting and provide for a mirrored design (internally) on the newly acquired land. The external facades of the building have been developed to ensure a unique appearance.

The primary concerns raised by the Panel during this meeting related to open space and landscaping, internal amenity, built form and quality of construction and material selection. The following comments are made with respect to these items:

Open space and landscaping:

- To ensure that a high level of amenity is provided to the residents, the area of communal open space has been provided in part at ground level and in part at roof level. In this respect, the proposal therefore aligns with the definition of communal open space under the Apartment Design Guide (ADG) which states,

  *"Communal open space – outdoor space located within the site **at ground level or on a structure** that is within common ownership and for the recreational use of residents of the development. Communal open space may be accessible to residents only, or to the public".*

The provision of communal open space at roof level also ensures excellent solar access is achieved which in view of the north-south orientation of the site is difficult to achieve at ground level alone. The proposed communal space area at roof level includes BBQ and seating areas offering a high quality outdoor space for the future occupants which are complemented by landscaping works to create a pleasant setting.

With respect to the design guidance criteria provided under ADG, the following comments are made:

- The proposed areas of communal open space have been designed as large, useable spaces at ground level that are easily identifiable within the front, side and rear setbacks. The ground level areas of communal open space have also been designed as dual use incorporating drying yards and meeting points for residents.

- As will be detailed in this report, a consolidated area is also proposed at roof level.

- All proposed areas are provided with a minimum dimension of 3m.

- As the proposal does not provide for any basement parking, opportunities for deep soil planting are readily available.

- Direct, equitable access is provided to communal open space areas from common circulation areas, entries and lobbies. The proposed lift will enable rooftop access.

- ADG also reinforces that where communal open space cannot be provided at ground level, it should be provided on a podium or roof. As stated, the north-south orientation of the site together with a High Density Residential zoning means overshadowing to the rear is somewhat inevitable. Therefore the provision of communal open space at roof level, provides for an excellent level of amenity to the occupants both in terms of solar access and useability.

We further note, that SEPP (ARH) 2009 requires 30% of a site to be landscaped which can include land within the front setback. ADG then requires 25% of a site to be provided as communal open space, which is generally provided to the rear of the site. We respectfully submit that to comply with both of these controls

compromises the envelope of a building, restricting the extent of any ground floor layout. The proposed development has been designed to comply numerically with these standards, and as described above comprises of useable areas of communal open space meeting the intention of the standard.

Internal amenity:

- The current set of plans includes furniture arrangements demonstrating the suitability of the development for families. This is clearly shown within the proposed two bedroom units whereby one bedroom provides for two single beds.

- The internal layouts of the unit have also been redesigned to eliminate side by side snorkel windows. To the north, some bedrooms have been provided with bay window designs off the bedroom to take advantage of the favourable orientation.

- As each individual unit is provided with laundry facilities, no communal laundry rooms are proposed.

Built form:

- As discussed during the Design Excellence meeting, the proposed variation is limited to the lift/lift overrun rather than habitable floor area. The extension of the lift has been designed to enable access to the communal open space area. A Clause 4.6 variation has been prepared with respect to the proposed variation and is submitted as Appendix A to this Statement of Environmental Effects.

- The proposed scheme provides for three distinct sections to each building, creating a fine grain appearance to the street through the strong vertical elements, reducing the overall perceived bulk of the building.

Quality of construction and material selection:

- The proposal incorporates predominantly brick external walls in varying colours to provide for visual interest to the street. The building materials have been carefully chosen to respond to the existing material context and ongoing building maintenance. The overall composition of building elements, textures, materials and finishes contribute towards an overall high quality and aesthetically appealing development.

GAT & Associates has been retained by St George Community Housing to

prepare a Statement of Environmental Effects to accompany the development application for Liverpool City Council's consideration.

This Statement of Environmental Effects is based on information and details shown on the following architectural plans prepared by DKO Architecture Pty. Ltd.:

- ❑ DA000 Title Page, Rev A
- ❑ DA100 Site Analysis, Rev A
- ❑ DA101 Site Plan, Rev A
- ❑ DA102 Demolition Plan, Rev A
- ❑ DA200 Ground – Level 2 Plans, Rev A
- ❑ DA201 Level 3 – Roof Plans, Rev A
- ❑ DA300 Typical Units, Rev A
- ❑ DA301 Adaptable Units, Rev A
- ❑ DA400 Elevations, Rev A
- ❑ DA401 Elevations & Section, Rev A
- ❑ DA402 Perspectives, Rev A
- ❑ DA500 GFA Calculations, Rev A
- ❑ DA501 Solar Access Calculations, Rev A
- ❑ DA502 Cross Ventilation Calculations, Rev A
- ❑ DA503 Communal Open Space Calculations, Rev A
- ❑ DA504 Deep Soil Zone Calculations, Rev A
- ❑ DA505 Development Summary, Rev A
- ❑ DA701 Shadow Diagrams 1, Rev A
- ❑ DA702 Shadow Diagrams 2, Rev A

This Statement of Environmental Effects is also based on the following plans and documents:

- ❑ Access Report prepared by Cheung Access;
- ❑ Acoustic Report prepared by NG Child and Associates;
- ❑ Arborist Report prepared by Advanced Treescape Consulting;
- ❑ BASIX certificate including ABSA Certificates, NatHERS Summary and NatHERS Schedule prepared by Northrop;
- ❑ Building Code of Australia Report prepared by Building Control Group;
- ❑ Contamination reports prepared by Ideal Geotech;
- ❑ Erosion and Sediment Control Plan prepared by AJ Whipps Consulting Group;
- ❑ Fire Engineer Letter prepared by Innova Services;

- Flood Report prepared by Flood MIT;
- Geotechnical assessment reports prepared by Ideal Geotech;
- Landscape Plans prepared by Inview Design;
- Plan Showing Proposed Lot Layout prepared by Norton Survey Partners;
- Stormwater Plans prepared by AJ Whipps Consulting Group;
- Structural Plans prepared by Northrop;
- Survey Plan prepared by Norton Survey Partners;
- Traffic Report prepared by Stanbury Traffic Planning;
- Waste Management Plan prepared by SLR Consulting.

This Statement of Environmental Effects has been prepared in support of the proposed development. This report is based on the submitted architectural plans and supporting documentation, discussions with Council Officers, and inspections and knowledge of the site and locality, with the aim of:

- Assessing the proposal against relevant statutory controls.
- Determining whether the proposal is acceptable within the existing and likely future context of the area.
- Considering whether the proposal is acceptable within the broader planning controls.
- Addressing any likely environmental and external impacts (positive and negative).

The proposed application has also been assessed in relation to:

- Liverpool Local Environmental Plan 2008.
- Liverpool Development Control Plan 2008.
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.
- State Environmental Planning Policy (Affordable Rental Housing) 2009.
- State Environmental Planning Policy No. 55 – Remediation of Land.

- State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development.
- Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment.
- Section 79C Considerations of the Environmental Planning and Assessment Act, 1979.

2.0 SITE AND CONTEXT

The subject site is commonly known as Nos. 12 – 22 Willan Drive, Cartwright and legally described as Lots 344, 345, 346, 347, 348, 349 in Deposited Plan 227167. The subject property is located on the southern side of Willan Drive, between Cartwright Avenue to the west and Balmain Road to the east. Reference should be made to the submitted Survey Plan prepared Norton Survey Partners.

The site provides for a frontage of 93.27m to Willan Drive and a total site area of 3,312m². Refer to Figure 1 below.

Figure 1 – Site Location Map

Source: SIX Maps

Located on the subject site at present are six detached residential dwellings with associated outbuildings. All existing structures will be demolished as part of the proposed works.

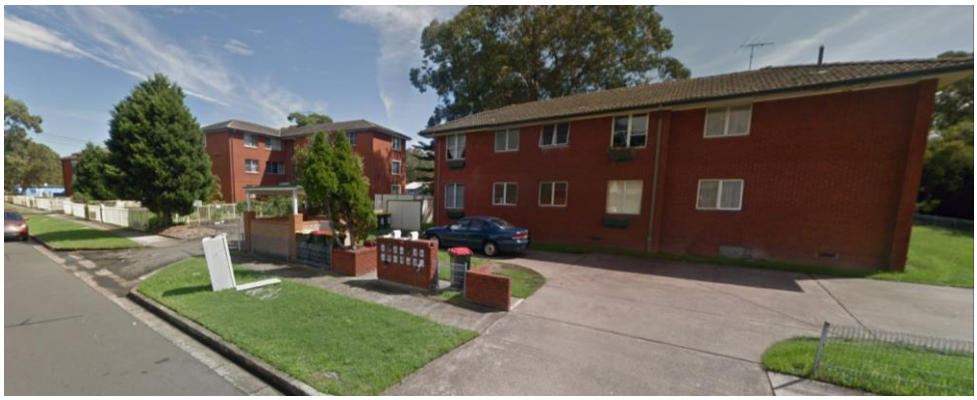
Development in the area is typically low density residential in nature comprising of predominantly single storey and fibro dwellings.

Immediately opposite the site however at 17 – 21 Willan Drive are examples of older style residential flat buildings. In view of the R4 High Density Residential zone afforded to the site, the area will inevitably undergo a transition to higher density building forms with the proposed development representative of this desired future character.

The area surrounding the site comprises of Macarthur Community College located to the north west of the site, with Fassrien Park located further to the north. To the south is Hoxton Park Road, where predominantly general industrial buildings and bulky goods outlets are located. Refer to Figure 2 below.

Figure 2 – Photographs of Site and Surrounds

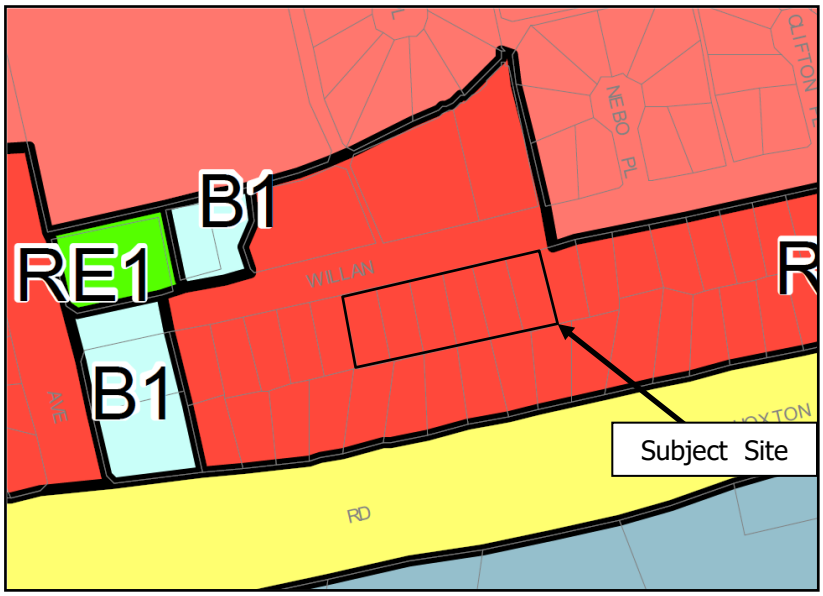
The subject site as viewed from Willan Drive.



An example of existing residential flat development on the opposite side of the street.

The subject site is zoned R4 High Density Residential as demonstrated in Figure 3 below.

Figure 3 – Zoning Map



Source: Liverpool Local Environmental Plan 2008, map 10.

3.0 PROPOSAL

The proposal before Council involves the demolition of all existing structures and the development of a residential flat building comprising of two x four storey buildings. The proposed development will provide for a total of 64 residential units comprising of 12 x 1 bedroom and 52 x 2 bedroom units.

The proposal further seeks the subdivision of the land into two allotments with one building located upon each allotment and a shared driveway arrangement. Reference should be made to the submitted plan prepared by Norton Survey Partners which depicts the proposed lot layout. Each lot will measure approximately 1,656m² with a frontage of 46.635m.

The proposed split building design and centralised driveway enable a mirrored design of the proposal (internally) to be realised across the site providing for a symmetrical balance as viewed from the public domain. It is noted that the external facades have been developed to provide for an articulated and unique presentation. A detailed summary of the proposal is provided below:

Ground Floor

- Vehicular access will be via Willan Drive and will be centred between the two proposed buildings.
- A total of 32 at grade car parking space are proposed including 6 x accessible spaces. Eight bicycle spaces are also proposed.
- In terms of service rooms, each building will be provided with a bin room capable of accommodating 32 bins; switch room; hydrant pump room; WC; service rooms and hot water pump room at ground level. Drying courtyards will be located adjacent to the southern side boundary.
- A residential lobby is located at the centre of each tower with a single lift and stairs providing access to the upper floors.
- Five x 2 bedroom units will be located at the ground level of each building with private courtyards. Of the proposed units, four have been designed to provide for direct access from the street. Access to the rear unit will be via the internal residential lobby.

Levels 1, 2 and 3:

- Levels 1, 2 and 3 each provide for an identical floor plate comprising of two x 1 bedroom and seven x 2 bedroom units. Where possible, internal living areas and balconies have been

orientated to the north, east or west to maximise solar access.

Roof Level:

- An area of communal open space is proposed at the centre of the roof which may be accessed by the future residents.

  The area will be 119m² in area (per building) and accessible via the central lift. A BBQ/seating area is proposed with pergola over. Communal open space of 612m² is also proposed at ground level.

  Landscaping works are proposed to the perimeter of the communal open space.

Other

- The proposed development has been carefully designed to project a fine grain appearance to Willan Drive despite spanning the width of six consolidated sites. This has been achieved through the separation of the two buildings by the common driveway and the vertical definition of each building as three distinct components. Although a consistent brick material will be applied, tying together the overall development, variations in colour and the use of blade walls and horizontal banding will provide for articulation to the design. Refer to the Perspectives prepared by DKO below.

Figure 4 - Perspectives

Source: DKO Architecture Pty. Ltd.

- A Landscape Plan has been prepared by Inview Design Pty. Ltd. and is submitted under a separate cover. The plans includes a variety of ground covers, shrub and tree plantings at both ground and rooftop level. The proposal includes a number of trees growing to a mature height of between 3.5 – 10 metres.

- A rainwater tank of 20,000 litres will be located below the proposed driveway.

The following are objectives, which were considered in formulating the proposed development:

- To implement the outcomes of the following planning documents:

    - Liverpool Local Environmental Plan 2008.

    - Liverpool Development Control Plan 2008.

    - State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

    - State Environmental Planning Policy (Affordable Rental Housing) 2009.

    - State Environmental Planning Policy No. 55 – Remediation of Land.

    - State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development.

    - Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment

    - Section 79C Considerations of the Environmental Planning and Assessment Act, 1979

- To ensure that the proposal provides a high quality development in a manner that contributes positively to the Liverpool local government area.

- To ensure that the proposed development provides for a high level of internal and external amenity for the future occupants of the site.

4.0 PLANNING CONTROLS AND ASSESSMENT

4.1 LIVERPOOL LOCAL ENVIRONMENTAL PLAN 2008

The table below summarises the proposal against the relevant controls of the Liverpool Local Environmental Plan 2008.

Planning Guideline	Requirement	Provided	Comply
Zoning	• R4 High Density Residential ***Permitted without consent*** *Home-based child care; Home occupations* ***Permitted with consent*** *Attached dwellings; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Child care centres; Community facilities; Dwelling houses; Educational establishments; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Home businesses; Home industries; Hostels; Hotel or motel accommodation; Kiosks; Multi dwelling housing; Neighbourhood shops; Places of public worship; Public administration buildings; Recreation areas; Residential care facilities;* ***Residential flat buildings;*** *Respite day care centres; Roads;*	• The proposal before Council seeks the development of a residential flat building over the subject land. The proposal has been designed as two buildings each comprising of four storeys. The proposed development comprises of 64 residential units, all of which will be nominated for the purpose of affordable housing. Residential flat buildings are listed as permitted with the consent of Council within the R4 High Density zone.	✓

Planning Guideline	Requirement	Provided	Comply
	Secondary dwellings; Serviced apartments; Shop top housing ***Prohibited*** *Any development not specified in item 2 or 3.*		
Cl 2.6 Subdivision	• Development consent required.	• Refer to comments made under Clause 4.1.	✓
Cl 2.7 Demolition	• Development consent required.	• The existing dwellings and associated garages located at Nos. 12 – 22 Willan Drive will be demolished as part of this application. As the site has not been identified as an item of local or state heritage significance, the demolition of these buildings is considered acceptable.	✓
Cl 4.1 Minimum subdivision lot size	• Minimum lot size: 1,000m²	• The proposal relates to land known as 12 – 22 Willan Drive. The proposal seeks the subdivision of the land into two allotments with one building located upon each allotment and a shared driveway arrangement. Following the proposed subdivision, each lot will measure approximately 1,656m² with a frontage of 46.635m. Reference should be made to the submitted plan prepared by Norton Survey Partners.	✓
Cl 4.3 Height of	• Maximum building height: 15m	• As acknowledged in this report, the proposal will exceed the 15m development standard prescribed	Variation is sought

Planning Guideline	Requirement	Provided	Comply
buildings		for the site. As detailed on the submitted elevations, the proposal will result in a maximum building height of 17.83 metres as measured from existing ground level to the top of the lift overrun. It should be noted that the maximum building height of 17.83 metres is only achieved where the proposal to the lift overrun accessing the communal open space. The remainder of the proposed building (maximum four storeys) will achieve a maximum building height of just 12.90 metres. A detailed assessment of the variation has been provided as part of the submitted Clause 4.6 statement provided as Appendix A to this report.	
Cl 4.4 Floor space ratio	• Maximum FSR: 1.0:1	• The proposal has been designed having regard to the provisions of SEPP (Affordable Rental Housing) 2009 which permits a bonus FSR of 0.5:1 where the percentage of the gross floor area of the development that is used for affordable housing is 50% or higher. As all of the proposed 64 units will be used as affordable housing, the proposal is entitled to an	✓

Planning Guideline	Requirement	Provided	Comply
		FSR of 1.5:1 as per Clause 13 of the SEPP. The proposal will result in a gross floor area of 4,962m². Based on a site area of 3,312m², this is equal to an FSR of 1.5:1. Following the proposed subdivision, each new allotment will also maintain an FSR of 1.5:1 acknowledging each building provides for a gross floor area of 2,480m² and proposed site area of 1,656m². The proposal therefore complies.	
Cl 5.9 Preservation of trees or vegetation	• A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by: o development consent, or o a permit granted by the Council.	• As detailed within the submitted Arboricultural Assessment Report prepared by Advanced Treescape Consulting, there are four street trees located immediately in front of the subject site on the council managed land and 11 trees within the site. The submitted report provides for an assessment of these 15 trees and concludes that Trees 1, 2, 3, 4 and 14 as described under Section 5.1 of their report should be retained and protected. Trees 1 and 3 are noted as being of high significance and relate to two of the four street trees.	✓

Planning Guideline	Requirement	Provided	Comply
		Trees 5, 6, 7, 8 , 9 , 10 , 11, 12, 13 and 15 are all recommended for removal. These trees are all noted as having low – medium significance. Suitable replacement trees have been included as part of the submitted Landscape Plan.	
Cl 5.10 Heritage conservation	• The objectives of this clause are as follows: o to conserve the environmental heritage of Liverpool, o to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views, o to conserve archaeological sites, o to conserve Aboriginal objects and Aboriginal places of heritage significance.	• The site is not listed as an item of heritage, nor is the site located in a conservation zone. The site is not located in proximity to an item of heritage.	N/A
Cl 7.6 Environmentally significant land	• The objectives of this clause are as follows: o to maintain bushland, wetlands and wildlife corridors of high conservation value, o to identify areas of significance for revegetation to connect to or buffer bushland, wetlands and wildlife corridors, o to protect rare and threatened native flora and native fauna, o to ensure consideration of the significance of vegetation, the sensitivity of the land and the impact of development on the environment prior to the giving of any development consent.	• The site has not been identified as environmentally significant land.	N/A
Cl 7.7 Acid sulfate soils	• The objective of this clause is to ensure that development does not disturb, expose or drain acid	• The site does not contain acid sulfate soils.	N/A

Planning Guideline	Requirement	Provided	Comply
	sulfate soils and cause environmental damage.		
Cl 7.8 Flood planning	• This clause applies to land at or below the flood planning level. • Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development: o is compatible with the flood hazard of the land, and o will not significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and o incorporates appropriate measures to manage risk to life from flood, and o will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and o is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding, and o is consistent with any relevant floodplain risk management plan adopted by the Council in accordance with the Floodplain Development Manual. • A word or expression used in this clause has the	• The site has been identified as flood prone land. A Flood report has been prepared by FloodMit Pty. Ltd. and is submitted under a separate cover. The report acknowledges that the entire area of the subject site has been classified by Council as having a Low Flood Risk. The site is located within the Cabramatta Creek catchment, between Cabramatta Creek and Maxwells Creek. The report makes an assessment of the proposed development with regards to floor levels; building components and methods; structural soundness; flood effects; car parking and driveway access; evacuation; management and design and fencing as per Council's DCP. The report concludes that the proposal is capable of satisfying the relevant controls. These recommendations have been integrated into the architectural plans.	✓

Planning Guideline	Requirement	Provided	Comply
	same meaning as it has in the Floodplain Development Manual, unless it is otherwise defined in this Plan.		
Cl 7.13 Minimum lot width	• This clause applies to the subdivision of land in Zone R1 General Residential, R2 Low Density Residential, R3 Medium Density Residential or R4 High Density Residential. • The width of any lot, resulting from a subdivision of land to which this clause applies, that is capable of accommodating residential development but is not the subject of a development application for that purpose, must not be less than 10 metres except as provided by subclause (4).	• The site as existing has a frontage of approximately 93.27m to Willan Drive. Following the proposed subdivision, each allotment will provide for a frontage of 46.635m.	✓
Cl 7.14 Minimum building street frontage	• Development consent must not be granted to development for the purposes of any of the following buildings, unless the site on which the buildings is to be erected has at least one street frontage to a public street (excluding service lanes) of at least 24 metres: o any building on land in Zone B3 Commercial Core or B4 Mixed Use, or o any building of more than 2 storeys on land in Zone R4 High Density Residential, B1 Neighbourhood Centre or B2 Local Centre, or o any residential flat building.	• The site as existing has a frontage of approximately 93.27m to Willan Drive. Following the proposed subdivision, each allotment will provide for a frontage of 46.635m.	✓

4.2 LIVERPOOL DEVELOPMENT CONTROL PLAN 2008

Parts 1 and 4 of the Liverpool Development Control Plan 2008 are relevant to the site within the Liverpool City Centre, and to the proposed mixed use development. A summary of these relevant Parts are provided in the following tables.

4.3.1 Part 1 – General Controls for All Development

The following controls are applicable to all development within Liverpool.

Planning Guideline	Requirement	Provided	Comply
Landscaping and Incorporation of Existing Trees	• Existing trees and native vegetation are to be retained, protected and incorporated into the development proposal. This is particularly important for vegetation which forms part of a ridgeline tree canopy and in foreshore and riparian areas. • Landscape planting should be principally comprised of native species provide an integrated streetscape appearance.	• Refer to Section 4.1 of this report and the submitted Arborist Report prepared by Advanced Treescape Consulting. • New landscaping works will be incorporated into the overall design of the development. Landscaping is provided along the street frontages and at a roof level. Details of the species and quantities are provided on the plans prepared by Inview Design Pty. Ltd.	✓ ✓
Water Cycle Management	• Stormwater runoff shall be connected to Council's drainage system by gravity means. Mechanical/pump will not be permitted except for basement car parks. • The acquisition of drainage easements over downstream properties will be required where direct access is not possible to Council's drainage system.	• The stormwater and drainage system for the site has been designed by AJ Whipps Consulting Group. The stormwater design provides for an on-site detention system to be located below the driveway. Reference is to be made to the submitted plans.	✓

Planning Guideline	Requirement	Provided	Comply
	• For developments that require construction of stormwater drainage, a Stormwater Drainage Concept Plan shall be submitted with the Development Application demonstrating the feasibility of the proposed drainage system within the site and connection to Council's system. • All habitable floor levels are to be a minimum of 300mm and garage/non habitable floor levels to be a minimum of 150mm above the maximum design storage water surface level and flow path levels. • On-Site Detention (OSD) systems provide temporary storage of stormwater runoff from developments and restrict discharge from the site at a rate which council's existing drainage system can accommodate.		
Development Near a Watercourse	• This section applies to: a) Development within 50m of a watercourse, creek or river except where separated from the watercourse, creek or river by land in an - RE1 – Public Recreation zone , - E2 – Environmental Conservation zone, - E3 – Environmental Management zone or - W1 – Natural Waterways zone. b) Development that may impact upon, bed, banks or stream flow of a watercourse. c) Development with removal of riparian vegetation.	• The proposed works are not within 50 metres of a water course, creek or river.	N/A
Erosion and Sediment Control	• The development application shall be accompanied by either a Soil and Water Management Plan (SWMP) or an Erosion and Sediment Control Plan (ESCP) as	• Erosion control measures will be provided as detailed on the submitted plans prepared by AJ Whipps Consulting Group.	✓

Planning Guideline	Requirement	Provided	Comply
	shown in Table 1.		
Flooding Risk	• Reduce the risk to human life and damage to property caused by flooding through controlling development on land affected by potential floods.	• The site has been identified on Council's maps as flood prone land. Reference should be made to Section 4.1 of this report and the submitted Flood report prepared by FloodMit.	✓
Contamination Land Risk	• Identify the presence of contamination at an early stage of the development process and manage the issues of land contamination to ensure protection of the environment and that of human health is maintained. • Ensure that proposed developments or changes of land use will not increase the risk to human health or the environment.	• Reference should be made to the submitted Preliminary Contamination Assessments prepared by Ideal Geotech. The submitted reports identify that with respect to Nos. 12 – 16 Willan Drive notes that the only potential sources of contamination on the site stem from fuel, oil, asbestos sheeting, lead based paints and pesticides which may have been stored within the garages at some point or asbestos/lead based paints used as part of the house construction. The report continues to states that no history of dangerous manufacturing on site utilising heavy chemical or storage was documented. No record of contamination was recorded on the NSW EPA Contaminated Land Management record either. The report concludes that *"Whilst the study indicated the site to be free of contamination, it is possible that contaminated soils may be present between sampling*	✓

Planning Guideline	Requirement	Provided	Comply
		locations. Further sampling and chemical testing should be undertaken once demolition of the existing dwellings and garages has been undertaken". Similarly, the report prepared for Nos. 18 – 22 Willan Drive states, *"The contaminants that may be present across the site were low significance in terms of risk to human and environment receptors identified. However, a Detailed Site Investigation (DSI) is required to confirm the presence and extent of asbestos contamination to determine the suitability of the site for the proposed development application and address the data gaps identified".* It is our opinion that the further investigation environmental planning investigations are carried out following approval of the development application as a condition of the development consent. This will enable the investigation scope and any remediation or contamination management requirements to be specifically tailored to suit the final development scheme and layout. Should the results of any further study indicate that contamination exists on site, an appropriate remediation and/or management strategy can be implemented at the advice of Ideal Geotech.	

Planning Guideline	Requirement	Provided	Comply
Salinity Risk	• Prevent further spread of urban salinity and remedy, where possible, existing areas of salinity.	• Soil erosion and sediment control measures will be implemented during demolition and construction works as detailed on the submitted plans prepared by AJ Whipps Consulting Group.	✓
Acid Sulfate Soils	• Identify areas of acid sulfate soil risk to prevent any unnecessary impact to the environment.	• The site is not identified on Council's maps as being subject to acid sulfate soils.	N/A
Demolition of Existing Developments	• All demolition work must comply with the *Australian Standard AS2601 - 1991*, *The Demolition of Structures*.	• The existing dwellings and detached garages over Nos. 12 – 22 Willan Drive will be demolished as part of this development.	✓
Aboriginal Archaeology	• Identify and where possible preserve relics of the occupation of the land by Aboriginal communities.	• The site is not affected by Aboriginal Archaeology.	N/A
Heritage and Archaeological Sites	• Conserve the heritage significance of heritage items and heritage conservation areas of Liverpool including associated fabric, setting, curtilage and views; and conserve archaeological sites.	• The site is not affected by heritage or archaeology.	N/A
Car Parking and Access	• Off-Street -Car Parking Provision for multi dwelling housing and residential flat buildings in residential and business zones are as follows: 1 space/small dwelling (<65sqm) or 1 bedroom; 1.5 spaces/medium dwelling (65 – 110sqm) or two bedrooms; 2 spaces/large dwelling (>110sqm) or three or more bedrooms 1 space/4 dwellings or part thereof for visitors; Service access for removalists and garbage servicing	• The parking required under the DCP is as follows: 12 x 1 bed = 5 spaces, plus 52 x 2 bed = 78 spaces, plus Visitor: 64 units/4 = 16 spaces **Total Residential Space Req'd = 99 Spaces** **Residential Parking Proposed = 32 spaces** However, the rates under SEPP (Affordable Rental Housing) 2009 have been applied to the development as all of the units will be nominated as affordable rental housing. Refer to Section 4.4 of this	Refer to Section 4.4 of this Statement

Planning Guideline	Requirement	Provided	Comply
		Statement.	
	• Car parking design is to be in accordance with *AS 2890.1: 2004.*	• Car parking is designed in accordance with AS 2890.1:2004.	✓
	• Minimise the number of pedestrian and vehicular entry and exit points, and ensure they are in close proximity to each other and to nearby active uses.	• The development provides one main vehicular entry and exit to the site, from Willan Drive.	✓
	• Lighting must comply with relevant Australian Standards, with brighter lighting located at entrances and pedestrian path or accessways.	• Lighting will be provided to the common areas, in accordance with the relevant Australian Standards.	✓
	• Adequate loading facilities for servicing developments shall be provided on-site to ensure loading/unloading activities do not occur on street and compromise the safety, amenity and capacity of the public road system. Loading facilities shall be provided in accordance with AS 2890.2 – 2002. Service facilities shall be located close to service entrances.	• As the proposal seeks a residential development on the site, it is not anticipated there will be deliveries to the site other than removalist vans who may use the parking areas provided within the at grade car park.	✓
	• Where a development site has frontage to a Classified Road, the Driveway Crossings should be located on an alternative street.	• Not applicable.	N/A
	• Where a Driveway Crossing is proposed directly from a Classified Road, a deceleration lane may be required.	• The existing driveway is currently provided off a service road. This proposal will not alter this arrangement.	✓
Subdivision of Land and Buildings	• Minimum lot sizes – refer to LLEP08.	• Refer to table 4.1	✓
	• Minimum lot width: 24m	• Each proposed lot will provide for 46.635m.	✓
	• Road widths.	• Willan Drive will not be affected.	✓
	• Road works.	• No new streets proposed.	✓
	• Stormwater: legal easements of width as determined by the Council Code and Specifications are to be	• Refer to submitted stormwater plans.	✓

Planning Guideline	Requirement	Provided	Comply
	provided over stormwater drains and watercourses. • Water and sewerage: new development will be required to extend augment and meet the full cost of water and sewerage reticulations, as arranged with Sydney Water within developments/subdivisions plus the cost of connecting to existing services. • Electricity: o Electricity services are to be extended to the development/subdivision and in accordance with the requirements of Integral Energy and at full cost to the development. o Underground electricity services will be required except where it can be shown that it is not appropriate. • Street lighting. • Telephone facilities. • Stormwater runoff: urban stormwater runoff will need to be assessed in terms of satisfactory performance both within the development and external to the development to a legal point of discharge. • Street tree planting. • Street signage.	• Existing connections are available as evidenced by the existing residential development. Appropriate connections will be made as part of the construction process. • Existing connections are available as evidenced by the existing residential development. Appropriate connections will be made as part of the construction process. • This may be conditioned. • No change to existing. • Existing connections are available as evidenced by the existing residential development. Appropriate connections will be made as part of the construction process. • Refer to the submitted stormwater plans. • The subject site is located within an existing residential setting. New street planting is not considered to be warranted in this instance. • No new streets will be created as a result of this	✓ ✓ ✓ ✓ ✓ N/A N/A

Planning Guideline	Requirement	Provided	Comply
		application.	
Water Conservation	**Residential** • New dwellings, including a residential component within a mixed-use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with *State Environmental Planning Policy – Building Sustainability Index (BASIX*).	• All units within the development have been assessed against the provisions of BASIX. A BASIX Certificate has been issued for the development showing the development meets the energy, water and thermal targets set. These Certificates are submitted with this application.	✓
Energy Conservation	**Residential** • Dwellings, including multi-unit development within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with *State Environmental Planning Policy – Building Sustainability Index (BASIX).* A complying BASIX report is to be submitted with all development applications containing residential activities. • For all commercial office development over $5 million, applications are to include an Energy Efficiency Report from a suitably qualified consultant. The report is to demonstrate that the building can achieve no less than 4 stars under the National Australian Built Environment Rating System (NABERS).	• As stated, all units within the development have been assessed against the provisions of BASIX. A BASIX Certificate has been issued for the development showing the development meets the energy, water and thermal targets set. These Certificates are submitted with this application. • The building does not include office space.	✓ N/A
Landfill	• Minimise any land cut and filling. • Minimise any adverse impact of land cut or filling on adjoining or nearby lands.	• The proposal includes moderate cut and fill works to ensure appropriate levels are maintained to address the flooding risk affecting the site. Reference should be made to the Geotechnical Assessment Reports prepared by Ideal Geotech.	✓

Planning Guideline	Requirement	Provided	Comply
Waste Disposal and Reuse Facilities	• A Waste Management Plan (WMP) shall be submitted with a Development Application for any activities generating waste, and be provided in three sections: - Demolition - Construction - On-going waste management.	• A Waste Management Plan has been prepared and is submitted with this application. The plan addresses the demolition and construction stages, as well as the on-going waste management. Need a copy.	✓
	• In the case of multi dwelling housing of 9 or more dwellings and residential flat buildings one or more garbage and recycling enclosures (bin bays) are to be provided within the site.	• A bin storage room is proposed at ground floor level and is capable of accommodating 32 bins.	✓
	• Bin bays or waste service rooms are to be sufficiently open and well lit.	• The garbage room will be ventilated and lit.	✓
	• A hose cock for hosing the garbage bin bay and a sewered drainage point are to be provided in or adjacent to the bin storage area.	• The garbage storage areas will be provided with the required water and sewer connection.	✓
	• Bin bays are to be adjacent to a street frontage, or if not possible then at a designated point adjacent to the common access driveway provided sufficient level areas (<5% grade) is available for bin collection. The bin bay is to be located so that distance from bin bay to the nearest waste collection point accessible by the collection vehicle is no further than 15m. The bin bay position is to minimise noise impacts on residents from the usage of bins and waste or recycling collection.	• Waste collection will occur on site, as detailed.	✓
Outdoor Advertising and Signage	• Business Zones One under-awning sign, one fascia sign and one top hamper sign on each shop or business premises.	• There is no outdoor advertising or signage proposed as part of this development.	N/A

Planning Guideline	Requirement	Provided	Comply
	• Signs in excess of a total of 50sqm in area are to be considered on its merits. • Special consideration will be given to commercial uses along Classified Roads where signs are required to be bigger in order to be seen by people travelling in vehicles. • Applications for high wall signs are to be considered on individual merits. They are not allowed in local centres unless it can be demonstrated that it is compatible with the scale of development and amenity of the surrounding land uses.		
Social Impact Assessment	• A social impact assessment shall be submitted with a development application for all types of development listed in Table 1. The social impact assessment shall take the form of a Social Impact Comment or a Comprehensive Social Impact Assessment, as specified in Table 1. • A comprehensive SIA is required for RFBs with more than 100 units.	• The DCP identifies the proposed development as one which requires a Social Impact Comment (SIC). This is due to the number of residential units (64) being above the threshold (20) requiring a Social Impact Comment or Assessment. Accordingly, we make the following comments: <u>Accommodation</u> The proposal will provide for 64 well designed apartments which will appeal to a range of different sized family groups. <u>Health and Wellbeing</u> The apartments will provide for good amenity. The proposal achieves excellent levels of both solar access and natural ventilation. The close proximity of this site to public transport will reduce the reliance	✓

Planning Guideline	Requirement	Provided	Comply
		upon private vehicles. Security and Safety As detailed within this report there are ample opportunities within the development for casual surveillance of public areas which is to the public benefit. Values and Expressions The proposed development is of a high architectural standard and will set a tone for this neighbourhood. In this regard the attention to detail in the design of the façade of the building, particularly defining the communal and private open spaces convey a sense of 'ownership' and connection between the future occupants and the precinct.	

4.3.2 Part 3.7 – Residential Flat Buildings

The following controls are applicable to residential flat developments within the R4 High Density Residential.

Planning Guideline	Requirement	Provided	Comply
Frontage and site area	• Minimum lot width: 24m.	• The amalgamated site provides for a frontage of 93.27m to Willan Drive. Following the proposed subdivision, each proposed lot will provide for a width of 46.635m.	✓

Planning Guideline	Requirement	Provided	Comply
	• Minimum lot area: as per LEP (1,000m²).	• The amalgamated site provides for an approximate area of 3,312m^2. Following the proposed subdivision, each lot will measure 1,656m².	✓
Site planning	• The building should relate to the site's topography with minimal earthworks, except for basement car parking.	• The proposal seeks minor cut and fill works. There is no basement parking proposed.	✓
	• Siting of buildings should provide usable and efficient spaces, with consideration given to energy efficiency in the building design.	• Where possible ground level private open space, balconies and windows have been orientated to the north to maximise solar access and reduce the reliance upon air conditioning.	✓
	• Site layout should provide safe pedestrian, cycle and vehicle access to and from the street.	• Where possible proposed units have been orientated to address Willan Drive providing opportunities for casual surveillance of pedestrian paths and the driveway. The ground level units to each tower will also provide for private courtyards within the front setback.	✓
	• Siting of buildings should be sympathetic to surrounding development, taking specific account of the streetscape in terms of scale, bulk, setbacks, materials and visual amenity.	• The proposal complies with the maximum FSR achievable on the site. Although a variation is sought to the height control, the additional bulk is limited to the central lift and stairwell accessing the rooftop communal open space. These elements have been centered over the roof to minimise the effect of any resultant overshadowing to the adjoining southern properties. With regards to setbacks, the proposal has been designed having regards to ADG and includes blank walls, offset windows and blade walls in its design to ensure the amenity of the subejct and adjoining properties is protected.	✓

<table>
<tr><th>Planning Guideline</th><th>Requirement</th><th>Provided</th><th>Comply</th></tr>
<tr><td></td><td>• Stormwater from the site must be able to be drained satisfactorily. Refer to Water cycle management in Part 1.
• The development will need to satisfy the requirements of State Environmental Planning Policy No 65—Design Quality of Residential Flat Development.</td><td>• Reference should be made to the submitted Stormwater plans.
• Reference should be made to Section 4.7 of this report.</td><td>✓
✓</td></tr>
<tr><td>Setbacks</td><td>Front setback:
Table 1
<table><tr><th>Road</th><th>Front Setback</th><th>Secondary Setback</th></tr><tr><td>Classified Roads</td><td>7.0m</td><td>7.0m</td></tr><tr><td>Other Streets</td><td>5.5m</td><td>5.5m</td></tr></table>• Verandahs, eaves and other sun control devices may encroach on the front and secondary setback by up to 1m.
• The secondary setback is along the longest length boundary.
Side and rear setbacks:
Table 2
<table><tr><th>Item</th><th>Side Setback</th><th>Rear Setback</th></tr><tr><td>Boundary to land in R2 & R3 zones</td><td>10m</td><td>10m</td></tr><tr><td>Boundary to land in R2 & R3 zones (no windows to habitable rooms)</td><td>10m</td><td>10m</td></tr><tr><td>Boundary to land in R4 zone (First 10m in height, excluding roof/attic)</td><td>3m</td><td>8m</td></tr><tr><td>Boundary to land in R4 zone (Greater than 10m in height)</td><td>8m</td><td>8m</td></tr><tr><td>Boundary to public open space</td><td>6m</td><td>6m</td></tr></table></td><td>• Willan Drive has not been identified as a Classified Road. Accordingly a setback of 5.5m is required. The proposal generally provides for a minimum setback of 7.0m to Willan Drive and therefore complies.
• The proposed side and rear setbacks have been designed with consideration of ADG building separation requirements.</td><td>✓
Refer to Section 4.6</td></tr>
</table>

Planning Guideline	Requirement	Provided	Comply
	• Consideration will need to be given to existing and approved setbacks of residential flat buildings on adjoining buildings.		
Landscaped area and POS –	Landscaped Area • A minimum of 25% of the site area shall be landscaped area.	• The site overall provides for 501m^2 or 15% of soft (deep soil) landscaping. Following the proposed subdivision, the proposed lots will each maintain a 15% deep soil area.Although short of Council's s DCP control, the proposal far exceeds the 7% ADG requirement.	X
	• A minimum of 50% of the front setback are shall be landscaped area.	• The entire front setback will be landscaped except paths and driveways. The areas of privaste open space to ground level units has been designed as part hard and part softl andscaping.	✓
	• Optimise the provision of consolidated landscaped area within a site by:	• The subject site does not provide for a basement car park maximising opportunities for deep soil planting. As demonstrated on the submitted Landscape Plan, the proposal includes a varierty of tree, shrub and hedge plantings along the front, rear and western side boundaries ensuring that a landscaped presence is maintained to both street frontages and the adjoining undeveloped site.	✓
	• Promote landscape health by supporting for a rich variety of vegetation type and size.	• A detailed list of species types and quantities is provided as part of the submitted Landscape Plan.	✓
	• Increase the permeability of paved areas by limiting the area of paving and/or using pervious paving materials.	• To Willan Drive, impervious areas have been limited to pedestrian paths and the driveway to promote soft landscaping.	✓

Planning Guideline	Requirement	Provided	Comply
	Open Space • Provide communal open space, which is appropriate and relevant to the context and the building's setting. • Where communal open space is provided, facilitate its use for the desired range of activities by: • Locate open space to increase the potential for residential amenity.	• Communal open space is proposed at both ground and roof level. • The proposed communal open space will accomodate a range of uses including BBQ facilities and seating. • In view of the north-south orientation of the site, the roof terrace will achieve excellent solar access increasing the potential for residential amenity.	✓ ✓ ✓
	Private Open Space • Private open space shall be provided for each dwelling in accordance with the following table. Table 3 Dwelling Size / Private Open Space Area / Minimum Width Small < 65 sqm / 10sqm / 2m Medium 65 – 100 / 12sqm / 2m Large > 100 sqm / 12sqm / 2m	• Private open space has been provided as per the provisions of ADG.	Refer to Section 4.6 of this report
	Private open space areas should be an extension of indoor living areas and be functional in size to accommodate seating and the like.	• The private open space of each unit is directly accessible off the living rooms.	✓
	Drying Areas • Clothes drying facilities must be provided at a rate of 5 lineal m of line per unit. Clothes drying areas should not be visible from a public place and should	• Drying courtyards are proposed along the southern rear boundary and will be screened by the adjoining boundary fence.	✓

Planning Guideline	Requirement	Provided	Comply
	have solar access.		
Building design, streetscape and layout	Building height • Refer to LEP. Building Appearance and Streetscape • Consider SEPP 65 and RFDC. • Building facades shall be articulated and roof form is to be varied to provide visual variety. • Consider the relationship between the whole building form and the facade and/or building elements. • Compose facades with an appropriate scale, rhythm and proportion, which respond to the building's use and the desired contextual character. • Design facades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls, depending on the facade orientation. • The pedestrian entrance to the building shall be emphasised. • A sidewall must be articulated if the wall has a continuous length of over 14 m. • Where possible vehicular entrances to the basement car parking shall be from the side of the building. A curved driveway to an entrance at the front of the	• Refer to Section 4.1 of this report. • Refer to Section 4.6 of this report. • The proposed development has been carefully designed to project a fine grain appearance to Willan Drive despite spanning the width of six consolidated sites. This has been achieved through the separation of the two buildings by the common driveway and the vertical definition of each building as three distinct components. Although a consistent brick material will be applied, tying together the overall development, variations in colour and the use of blade walls and horizontal banding will provide for articulation to the design • Separate pedestrians paths are provided to the north facing ground floor units and will be clearly delineated through paving and entry gates. Access to the main building is via a central path at the centre of each tower. • All walls in excess of 14m have been articulated through either a break/step in the wall, blade walls or glazed openings. • A central driveway is proposed to access the at grade car parkign area at the rear of the site.	✓ ✓ ✓ ✓ ✓

Planning Guideline	Requirement	Provided	Comply
	building may be considered if the entrance is not readily visible from the street.		
	• Driveway walls adjacent to the entrance of a basement car park are to be consistent with the appearance of basement or podium walls.	• Not applicable.	N/A
	• Ensure that podiums and vehicle entry areas do not dominate the overall design of the building or the streetscape and optimise areas for deep soil planting.	• Landscaping works are proposed either side of the driveway.	✓
	• The integration of podium design should be an integral part of the design of the development, and as far as possible should not visibly encroach beyond the building footprint.	• The rooftop terrace will not extend beyond the footprint of the level below.	✓
	• A master antenna shall be provided.	• This may be conditioned.	✓
	• Express important corners by giving visual prominence to parts of the facade, for example, a change in building articulation, material or colour, roof expression or increased height.	• The site is not a corner property.	N/A
	• Co-ordinate and integrate building services, such as drainage pipes, with overall facade and balcony design.	• Capable of being complied wirh.	✓
	• Co-ordinate security grills/screens, ventilation louvres and car park entry doors with the overall facade design	• Not applicable.	N/A
	Roof Design • Relate roof design to the desired built form. • Design roofs to respond to the orientation of the site, for example, by using eaves and skillion roofs to	• The proposal includes a flat roof consistent to complement the modern design of the building.	✓

Planning Guideline	Requirement	Provided	Comply
	respond to sun access. • Minimise the visual intrusiveness of service elements by integrating them into the design of the roof. These elements include lift over-runs, service plants, chimneys, vent stacks, telecommunication infrastructures, gutters, downpipes and signage. • Where habitable space is provided within the roof optimise residential amenity in the form of attics or penthouse dwellings. Building Entry • Improve the presentation of the development to the street. • Provide as direct a physical and visual connection as possible between the street and the entry. • Achieve clear lines of transition between the public street, the shared private, circulation spaces and the dwelling unit. • Ensure equal access for all. • Provide safe and secure access. • Provide and design letterboxes to be convenient for residents and not to clutter the appearance of the development from the street. Balconies • Balconies may project up to 1m from the façade of a	• The lift overrun will be centered over the site to minimise its visibility. • Not applicable. • The development provides for multiple entries including private entrances to ground floor dwellings. • Pedestrain paths are clearly defined through paved pathwaysand breaks in the landscaping. • All residential units have been designed to address eitherWillan Drive or the rear area of communal open space to enable casual surveillance. • The proposal includes a lift servicing all levels, including the rooftop communal open space. • Communal areas may be accessed via clear, direct paths and will be well lit. • The mail boxes will be located within the front setback adjacent to the main entry path. • The balcony depths have been designed at 2m in	✓ N/A ✓ ✓ ✓ ✓ ✓ ✓

Planning Guideline	Requirement	Provided	Comply
	building.	accordance with ADG.	
	• Balustrades must be compatible with the façade of the building.	• Open design, metal balustrades are proposed to complement the modern design of the building and to breakup the building mass.	✓
	• Ensure balconies are not so deep that they prevent sunlight entering the dwelling below.	• Balconies have been designed as 2m in depth.	✓
	• Design balustrades to allow views and casual surveillance of the street.	• The proposal incorporates open design balustrades allowing casual surveillance to take place.	✓
	• Balustrades on balconies at lower levels shall be of solid construction.	• The ground floor courtyards will slatted fencing to Willan Drive.	✓
	• Noise attenuation measures on balconies facing a Classified Road should be considered.	• Not applicable.	N/A
	• Balconies should be located on the street frontage, boundaries with views and onto a substantial communal open space.	• Complies.	✓
	• Primary balconies should be accessible of living rooms and well proportioned.	• The balconies have been designed to comply with ADG.	✓
	• Consider secondary balconies, including Juliet balconies or operable walls with balustrades, for additional amenity.	• Not applicable.	N/A
	• Design and detail balconies in response to the local climate and context thereby increasing the usefulness of balconies.	• Where possible balconies have been orientated to the north. The use of a repetitious floor plan to Levels 1, 2 and 3 enable the balconies of the unit above to cantilever over the unit below providing for passive shading. Blade walls are proposed to corner units to promote privacy.	✓
	• Operable screens increase the usefulness of balconies by providing weather protection, daylight control and	• None proposed.	N/A

Planning Guideline	Requirement	Provided	Comply
	privacy screening.		
	Daylight Access • Plan the site so that new residential flat development is oriented to optimise northern aspect. • Ensure direct daylight access to communal open space between March and September and provide appropriate shading in summer. • Optimise the number of dwellings receiving daylight access to habitable rooms and principal windows. • Avoid south facing dwellings. • Design for shading and glare control, particularly in summer.	• Where possible windows have been orientated to the north. • An area of communal open space is located at roof level and will not be overshadowed. • 81% of the units over the combined development site will receive a minimum of 2 hours solar access. • Given the north-south orientation of the dwelling, south facing dwellings are proposed, though where possible units have been designed as havign a dual aspect. • The proposal incorporates upper level balconies cantilevering over lower level balconies, screens and pergolas to provide for passive shading. North facing windows have been maximised. Where windows are proposed to the western elevation, they have been designed as highlight windows.	✓ ✓ ✓ X ✓
	Internal design • All staircases should be internal. • Minimise the length of common walls between dwellings. • Basement car parking shall be located beneath the building footprint. • Where possible natural ventilation shall be provided to basement car parking.	• Complies. • Where common walls are proposed, they have been designed adjacent to like uses to minimise noise disturbance. • Not applicable. • Not applicable.	✓ ✓ N/A N/A

Planning Guideline	Requirement	Provided	Comply
	• Design building layouts to minimise direct overlooking of rooms and private open spaces adjacent to dwellings.	• Windows and balconies have been designed to address the street frontages. Where windows are proposed within the development, they have been offset to prevent overlooking.	✓
	• Minimise the location of noise sensitive rooms such as bedrooms adjoining noisier rooms such as bathrooms or kitchens or common corridors and stairwells.	• Where possible, common walls have been designed to adjoin like uses.	✓
	• Where a site has frontage to a Classified Road, locate bedrooms away from the front of the site.	• Not applicable.	N/A
	• Where common walls are provided they must be carried to the underside of the roof and be constructed in accordance with *Part F5 of the Building Code of Australia*.	• Capable of being complied with.	✓
	• Locate active use rooms or habitable rooms with windows overlooking communal/public areas (e.g. playgrounds, gardens).	• The balconies of upper level units will overlook the entry points to the building and rear communal open space.	✓
	Ground Floor Dwellings • Design front gardens or terraces, which contribute to the spatial and visual structure of the street while maintaining adequate privacy for dwelling occupants.	• The proposal incorporates a landscaped front setback.	✓
	• Create more pedestrian activity along the street and articulate the street edge.	• As detailed in this report, the proposal will include appropriate fencing, lighting and landscaping to address the privacy and safety requirements of occupants. Street surveillance has been maximised with doors and windows facing onto the street.	✓
	• Optimise the number of ground floor dwellings with	• All north facing ground floor dwellings are provided	✓

Planning Guideline	Requirement	Provided	Comply
	separate entries and consider requiring an appropriate percentage of accessible units.	with separate entries.	
	• Provide ground floor dwellings with access to private open space, preferably as a courtyard.	• All ground level units are provided with a private courtyard.	✓
	Security		
	• Entrances to buildings should be orientated towards the front of the site and facing the street. • The main entrance to dwellings or other premises should not be from rear lanes and should be designed with clear directions and signage.	• Pedestrian paths lead from the street frontage to individual ground level units and to the centre of each tower where the residential lobby is sited.	✓
	• Blank walls in general that address street frontages or public open space are discouraged. Minimise the number of entry points to buildings.	• The street facing walls have been well articulated.	✓
	• Reinforce the development boundary to strengthen the distinction between public and private space.	• The development boundaries will be reinforcedby fences, walls and gates.	✓
	• Optimise the visibility, functionality and safety of building entrances.	• The development includes clear lines of sight between entrances and the street. As stated direct entry is proposed to ground level dwellings rather than through a common foyer. The car park, lift lobbies and common areas will be well lit and designed as clear, direct paths.	✓
	• Improve the opportunities for casual surveillance.	• The living areas of upper level units are provided with views over the communal open space. The proposed north facing balconies will enable sightlines to the street.	✓
	• Minimise opportunities for concealment.	• The development does not include any blind or dark alcoves near lifts and stairwells, at the entrance and	✓

Planning Guideline	Requirement	Provided	Comply
		within indoor car parks, along corridors and walkways. Well-lit routes will be provided throughout the development.	
	• Control access to the development.	• The proposed boundary fencing will ensure the proposed units are inaccessible from the balconies, roofs and windows of neighbouring buildings.	✓
	Natural Ventilation		
	• Utilise the building layout and section to increase the potential for natural ventilation	• 63% of the proposed units will be naturally cross ventilated.	✓
	• Provide narrow building depths to support cross ventilation.	• Refer to Section 4.6 of this report.	✓
	• Avoid single-aspect dwellings with a southerly aspect.	• 8 of the 64 units will be south facing. The development has aimed to mazimise the provision of corner and cross through units through the proposed two tower scheme, however in view of the north-south orienattion of the site, some south facing units are inevitable.	✓
	• Design the internal dwelling layout to promote natural ventilation.	• The units have been designed to group rooms with similar usage together to allow the dwelling to be compartmentalised for efficient summer cooling or winter heating.	✓
	Building Layout		
	• The layout of dwellings within a residential flat building should minimise the extent of common walls.	• Common walls have been minimised as much as possible.	✓
	Storage Areas		
	• A secure storage space is to be provided for each	• Refer to Section 4.6 of this report.	

Planning Guideline	Requirement	Provided	Comply
	dwelling with a minimum volume 8 m3 (minimum dimension 1m2). • Storage areas must be adequately lit and secure.	• Capable of being complied with.	✓ ✓
Landscaping and fencing	• The setback areas are to be utilised for canopy tree planting that will achieve a minimum 8 m height at maturity within front and rear setback areas. • Landscape planting should be principally comprised of native species. • The landscaping shall contain an appropriate mix of canopy trees, shrubs and groundcovers. • Landscaping in the vicinity of a driveway entrance should not obstruct visibility for the safe ingress and egress of vehicles and pedestrians. • Tree and shrub planting alongside and rear boundaries should assist in providing effective screening to adjoining properties. • Landscaping on any podium level or planter box shall be appropriately designed and irrigated. • The development must be designed around significant vegetation on the site. • Trees adjacent to private open space areas and living rooms should provide summer shade and allow winter sun entry. • Where landscaping is used to control overlooking, species selected are to be a kind able to achieve privacy within 3 years. • Advanced tree species are to be used for key	• Reference should be made to the submitted Landscape Plan prepared by Inview Design Pty. Ltd and Arborist Report prepared by Advanced Treescaoe Consulting.	✓

Planning Guideline	Requirement	Provided	Comply
	elements with the landscape design concept. • Any tree with a mature height over 8m should be planted a minimum distance of 3m from the building or utility services. Planting on Structures Fencing Primary Frontage • The maximum height of a front fence is 1.2m. • The front fence may be built to a maximum height of 1.5m *if* the fence is setback 1m from the front boundary with suitable landscaping in front of the proposed fence. • The front fence must be 30% transparent. • Front fences shall be constructed in masonry, timber, metal pickets and/or vegetation and must be compatible with the proposed design of the dwelling. • The front fence may be built to a maximum of 1.8m *only if:* o The primary frontage is situated on a Classified Road. o The fence is articulated by 1m for 50% of its length and have landscaping in front of the articulated portion. o The fence does not impede safe sight lines from the street and from vehicles entering and exiting the site.	• No formal front fence is proposed. A landscaped hedge is proposed as per the submitted plans.	N/A

Planning Guideline	Requirement	Provided	Comply
	Secondary Frontage • Fences and walls must be a maximum of 1.8m in height, and constructed of masonry, timber and/or landscaped. • For side walls or fences along the secondary frontage, a maximum height of 1.2m is required for the first 9m measured from the front boundary, the remaining fence / wall may then be raised to a maximum of 1.8m. The secondary setback is the longest length boundary. Boundary Fences • The maximum height of side boundary fencing within the setback to the street is 1.2m. • Boundary fences shall be lapped and capped timber or metal sheeting.	• Not applicable. • To be complied with.	N/A ✓
Car parking and access	• Visitor car parking shall be clearly identified and may not be stacked car parking. • Pedestrian paths and driveways shall be separated. • Driveways shall be designed to accommodate removalist vehicles. • Where possible vehicular entrances to the basement car parking shall be from the side of the building. As an alternative a curved driveway to an entrance at the front of the building may be considered if the entrance is not readily visible from the street. • Give preference to underground parking, whenever	• Parking has been provided in accordance with SEPP (Affordable Rental Housing) 2009. Refer to Section 4.4 of this report. • The pedestrian path and driveway will be finished in different materials clearly differentiating the two spaces. • Not applicable. • The proposal does not include basement parking.	✓ ✓ N/A N/A

Planning Guideline	Requirement	Provided	Comply
	possible. • Where above ground enclosed parking cannot be avoided, ensure the design of the development mitigates any negative impact on streetscape and street amenity by: o Avoid exposed parking on the street frontage. o Hiding car parking behind the building facade. Where wall openings (windows, fenestrations) occur, ensure they are integrated into the overall facade scale, proportions and detail.	• The proposal includes at grade car parking that is sited towards the rear of the site.	✓
	Pedestrian Access • Utilise the site and it's planning to optimise accessibility to the development.	• The developmeny maintains the existing subdivision pattern by orientating the front of the development to Willan Drive.	✓
	• Provide high quality accessible routes to public and semi-public areas of the building and the site, including major entries, lobbies, communal open space, site facilities, parking areas, public streets and internal roads.	• The proposed pathways do not provide for any blind corners and will be well lit to promote safety.	✓
	• Promote equity.	• The main building entrance is accessible for all from the street and from car parking areas. Two accessible units are also proposed at ground floor.	✓
	• Maximise the number of accessible and adaptable dwellings in a building.	• A central lift is proposed, servicing all levels. Reference should also be made to the Disability Access report prepared by Cheung Access which demonstrates compliance with AS4299 (1995) and AS 1428.1 (2009).	✓

Planning Guideline	Requirement	Provided	Comply
Amenity and environmental impact	• Building siting, window location, balconies and fencing should take account of the importance of the privacy of onsite and adjoining buildings and outdoor spaces.	• Where possible, windows and balconies have been orientated to the street frontage to limit any overlooking within the development and between neighbouring properties. Where windows are proposed internally, they have been offset between the units to ensure no direct sight lines are proposed. The proposal also incorporates vertical fins between adjacent balconies and/or screen panels at the edge of balconies to further promote privacy.	✓
	• Windows to habitable rooms should be located so they do not overlook such windows in adjoining properties, other dwellings within the development or areas of private open space.	• Refer to comments above.	✓
	• Landscaping should be used where possible to increase visual privacy between dwellings and adjoining properties.	• Refer to submitted Landscape Plans.	✓
	• Where possible the ground floor dwellings should be located above ground level to ensure privacy for occupants of the dwellings.	• Boundary fencing is proposed to the ground floor units to clearly delineate areas of private and public space.	✓
	• Design building layouts to minimise direct overlooking of rooms and private open spaces adjacent to dwellings.	• Refer to comments above.	✓
	• Use detailed site and building design elements to increase privacy without compromising access to light and air.	• Refer to comments above.	✓

Planning Guideline	Requirement	Provided	Comply
	Acoustic Impact • Noise attenuation measures should be incorporated into building design to ensure acoustic privacy between on-site and adjoining buildings. • Buildings having frontage to a Classified Road or a railway and impacted upon by rail or traffic related noises must incorporate the appropriate noise and vibration mitigation measures into the design. • The proposed buildings must comply with the Environment Protection Authority criteria and the current relevant Australian Standards for noise and vibration and quality assurance. • Arrange dwellings within a development to minimise noise transition between dwellings.	• Careful consideration has been made to separate noisier spaces from quieter spaces by grouping uses within a dwelling - bedrooms with bedrooms and service areas like kitchen, bathroom, and laundry together. Noisy areas are located next to each other and quieter areas next to other quiet areas, for example, living rooms with living rooms, bedrooms with bedrooms. The design has sough to minimise the amount of common walls with other dwellings to further reduce the potential for noise transfer.	✓
Site services	Letterboxes • Letterboxes shall to be provided for each dwelling on site, easily accessible from the street, able to be securely locked and provided in accordance with Australia Post's requirements. • Freestanding letterbox structures should be designed and constructed of materials that relate to the main building. • Residential numbering should be attached to the letterbox so that it is clearly visible from the street frontage. Numbers should be 75mm in height, reflective and in contrast to the backing material.	• Letterboxes will be sited within the front setback adjacent to the main entrance path. • This may be conditioned.	✓ ✓

Planning Guideline	Requirement	Provided	Comply
	Waste management • Waste disposal facilities shall be provided for development. These shall be located adjacent to the driveway entrance to the site. • Any structure involving waste disposal facilities shall be located as follows: o Setback 1 m from the front boundary to the street. o Landscaped between the structure and the front boundary and adjoining areas to minimise the impact on the streetscape. o Not be located adjacent to an adjoining residential property. Frontage works and damage to Council infrastructure • Where a footpath, road shoulder or new or enlarged access driveway is required to be provided this shall be provided at no cost to Council. Electricity Sub Station • In some cases it may be necessary to provide an electricity substation at the front of the development adjacent to the street frontage. This will involve dedication of the area as a public road to allow access by the electricity provider. The front boundary treatment used elsewhere on the street frontage	• A combined bin room is proposed off the driveway. • The bin room will not be visible to the street. • Complies. • Complies. • Not applicable. • An electric substation is proposed within the front setback, to the east of the central driveway.	✓ ✓ ✓ N/A ✓

4.3 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

State Environmental Planning Policy (Building Sustainability Index: BASIX) applies to new residential buildings.

The proposal has been assessed against the provisions of the State Environmental Planning Policy. BASIX Certificates have been issued for each residential apartment as required and are attached under separate cover. These Certificates show each apartment has achieved compliance with the provisions relating to thermal, water and energy performance.

4.4 STATE ENVIRONMENTAL PLANNING POLICY (AFFORDABLE RENTAL HOUSING) 2009

The table below summarise the provisions of SEPP (Affordable Rental Housing) 2009, Part 2 New Affordable Rental Housing, Divisions 1 In-fill Affordable Housing.

Planning Guideline	Requirement	Provided	Comply
Clause 10: Development to which this Division applies	• This Division applies to development for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if: o the development concerned is permitted with consent under another environmental planning instrument, and o 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*. • 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. • Despite subclause (1), this Division does not apply to development on land that is not in the Sydney region unless all or part of the development is within 400 metres walking distance of land within Zone B2 Local Centre or Zone B4 Mixed Use, or within a land use zone that is equivalent to any of those zones.	• Residential flat buildings are permitted in the R4 zone. • The site has not been identified as an item of heritage. • The site is located within an accessible area (bus stops located 190m away on Hoxton Park Road. • Not applicable. The site is within the Sydney region.	✓ ✓ ✓ N/A
Clauses 11, 12	• Repealed.	• Not applicable.	N/A
Clause 13: Floor Space Ratio	• This clause applies to development to which this Division applies if the percentage of the gross floor area of the development that is to	• All of the proposed 64 units will be nominated as affordable housing.	✓

Planning Guideline	Requirement	Provided	Comply
	be used for the purposes of affordable housing is at least 20 per cent. • 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: ○ if the existing maximum floor space ratio is 2.5:1 or less: ▪ 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 ▪ 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, where: ***AH*** is the percentage of the gross floor area of the development that is used for affordable housing. ***Y*** = AH ÷ 100 **OR** ○ if the existing maximum floor space ratio is greater than 2.5:1: ▪ 20 per cent of the existing maximum	• Subject site = 3,312m² LLEP 2008 prescribes a maximum FSR of 1.0:1. It is acknowledged that the controls opposite permit a bonus FSR of 0.5:1 where 50% of a development is used for the purposes of affordable housing. As Liverpool's LEP nominates an FSR of 1.0:1 over the subject site, this would enable a maximum FSR of 1.5:1. The proposal seeks an FSR of 1.5:1 with 100% of the proposal nominated as affordable housing. The proposal is therefore compliant.	✓

Planning Guideline	Requirement	Provided	Comply
	floor space ratio—if the percentage of the gross floor area of the development that is used for affordable housing is 50 per cent or higher, or ▪ Z per cent of the existing maximum floor space ratio—if the percentage of the gross floor area of the development that is used for affordable housing is less than 50 per cent, where: ***AH*** is the percentage of the gross floor area of the development that is used for affordable housing. ***Z*** = AH ÷ 2.5 • In this clause, ***gross floor area*** does not include any car parking (including any area used for car parking) • **Note.** Other areas are also excluded from the gross floor area, see the definition of ***gross floor area*** contained in the standard instrument under the *Standard Instrument (Local Environmental Plans) Order 2006*.		
Clause 14: Standards that cannot	• **Site and solar access requirements:** A consent authority must not refuse consent to development to which this Division applies on		

Planning Guideline	Requirement	Provided	Comply
be used to refuse consent	any of the following grounds: ○ (Repealed) ○ **site area**: if the site area on which it is proposed to carry out the development is at least 450 square metres, ○ **landscaped area** if: ▪ in the case of a development application made by a social housing provider—at least 35 square metres of landscaped area per dwelling is provided, or ▪ in any other case—at least 30 per cent of the site area is to be landscaped,	• Not applicable. • The site area is approximately 3,312m². Following the proposed subdivision, each lot will measure 1,656m². • The proposal has been prepared by St George Community Housing, a social housing provider. As 64 units are proposed, a landscaped area of 2,240m² is required. The proposal provides for 501m² of the subject site as deep soil. To comply with the standard is considered to be completely unreasonable given a site area of 3,312m² as it would require approximately 67% of the site be undeveloped compared to a private developer who would only require 30% of the site to be landscaped. As the SEPP is not clear in this matter, we can only assume that the control therefore applies in the case of a townhouse development whereby the 35m² could be provided as a courtyard/rear yard to each dwelling. In the case of a residential flat building, particularly in a high density zone such as the subject site, the control simply doesn't make sense.	N/A ✓ Variation is sought

Planning Guideline	Requirement	Provided	Comply
		The submitted proposal includes various hard paved areas both at ground and roof level which although not technically landscaped area, positively contribute to the landscaped setting and communal open space.	
	○ **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:	• The proposal provides for 501m² or 15% as deep soil planting.	✓
	▪ 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 ***deep soil zone***), and	• Refer to Landscape Plan.	Refer to Plan
	▪ each area forming part of the deep soil zone has a minimum dimension of 3 metres, and	• Refer to Landscape Plan.	Refer to Plan
	▪ if practicable, at least two-thirds of the deep soil zone is located at the rear of the site area,	• The deep soil areas will be located to the front and rear of the site.	✓
	○ **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.	• 81% of units will receive a minimum of 2 hours of solar access.	✓

Planning Guideline	Requirement	Provided	Comply
	• **General** A consent authority must not refuse consent to development to which this Division applies on any of the following grounds: ○ **parking** if: ▪ in the case of a development application made by a social housing provider for development on land in an accessible area—at least 0.4 parking spaces are provided for each dwelling containing 1 bedroom, at least 0.5 parking spaces are provided for each dwelling containing 2 bedrooms and at least 1 parking space is provided for each dwelling containing 3 or more bedrooms, or	• The proposal has been prepared by St George Community Housing, a social housing provider. The proposal provides for 12 x 1 bedroom units and 52 x 2 bedroom units. 1 bedroom: 12 x 0.4 = 4.8 2 bedroom: 52 x 0.5 = 26 TOTAL = 30.8 spaces The proposal provides for 32 car parking spaces and therefore complies. Each proposed allotment will comprise of 16 car spaces to service the associated units. Reference should also be made to the submitted Traffic Report prepared by Stanbury Traffic Planning.	✓
	▪ 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	• Not applicable.	N/A

Planning Guideline	Requirement	Provided	Comply
	for each dwelling containing 3 or more bedrooms, ○ **dwelling size** if each dwelling has a gross floor area of at least: ▪ 35 square metres in the case of a bedsitter or studio, or ▪ 50 square metres in the case of a dwelling having 1 bedroom, or ▪ 70 square metres in the case of a dwelling having 2 bedrooms, or ▪ 95 square metres in the case of a dwelling having 3 or more bedrooms. • A consent authority may consent to development to which this Division applies whether or not the development complies with the standards set out in subclause (1) or (2).	• The proposed 1 bedroom units will comprise of a minimum of 57m². • All 2 bedroom units will be a minimum of 70m² in area. Confirm on final plans. • Noted.	✓ ✓ ✓
Clause 15: Design Requirements	• A consent authority must not consent to development to which this Division applies unless it has taken into consideration the provisions of the *Seniors Living Policy: Urban Design Guidelines for Infill Development* published by the Department of Infrastructure, Planning and Natural Resources in March 2004, to the extent that those provisions are consistent with this Policy. • This clause does not apply to development to which clause 4 of *State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development* applies.	• The provisions of this SEPP do not apply in this instance. • Noted.	✓ ✓

Planning Guideline	Requirement	Provided	Comply
Clause 16: Continued application of SEPP 65	• Nothing in this Policy affects the application of *State Environmental Planning Policy No 65—Design Quality of Residential Flat Development* to any development to which this Division applies.	• Noted.	✓
Clause 16A: Character of Local Area	• A consent authority must not consent to development to which this Division applies unless it has taken into consideration whether the design of the development is compatible with the character of the local area.	• Locality and Street Character: - The site is located within a high density residential zone, though development is generally of an older housing stock comprising of predominantly single storey and fibro dwellings. Immediately opposite the site however at 17 – 21 Willan Drive are examples of older style residential flat buildings. In view of the R4 High Density Residential zone afforded to the site, the area will inevitably undergo a transition to higher density building forms with the proposed development representative of this desired future character. - The built form of the development will be consistent with the scale of newer development in the area such as the proposed redevelopment of nearby Nos. 9 – 11 Edgeworth Place, Cartwright a project also being undertaken by St George Community Housing. - The scale of the proposed development is consistent with the desired future character of the area acknowledging that the proposal complies with the maximum floor space ratio.	✓

Planning Guideline	Requirement	Provided	Comply
		Although the proposal will result in a breach of the building height control, the submission of this proposal follows a meeting with the Design Excellence Panel, where as detailed in under Section 1 of this report, the additional height was considered to have merit. Reference should be made to Appendix A. - The site is well serviced by public transport as detailed within this letter. - It is considered that the proposed building is in keeping with the desired future character of the area. • Landform: - The proposed building will be provided with good setbacks, allowing deep soil planting along the boundaries given that no basement parking is proposed. The topography of the site will not substantially change. • Street patterns: - Street and subdivision patterns of the area are reflective of the areas initial character. The proposal satisfies Council's minimum allotment size and frontage controls. - Parking is proposed at grade, to the rear of the site and will generally be concealed from Willan Drive. • Views and Vistas: - There are no substantial views attainable from the subject site.	

Planning Guideline	Requirement	Provided	Comply
		- The proposal has been sympathetically designed with respect to the streetscape as well as to adjoining properties. • Conclusion: - Based on the above, it is our view that the proposed development is in keeping with the existing and future character of the area. - The built form presentation to the street, together with appropriate colours and materials, all respond to the existing streetscape. - The proposal will be consistent with existing and new development in the local area. • It is also considered that the proposed development will greatly benefit the local community by providing for low cost housing accommodation in an area well serviced by amenities and public transport facilities.	
Clause 17: Must be used for affordable housing for 10 years	• A consent authority must not consent to development to which this Division applies unless conditions are imposed by the consent authority to the effect that: ○ for 10 years from the date of the issue of the occupation certificate: ▪ the dwellings proposed to be used for the purposes of affordable housing will be used for the purposes of affordable housing, and ▪ all accommodation that is used for	• Our clients are a dedicated not for profit organisation who seek to provide high quality, affordable residential housing options. In their research, they have identified a growing demand for affordable residential accommodation within the Liverpool local government area. On this basis, our clients will retain the development as	✓

Planning Guideline	Requirement	Provided	Comply
	affordable housing will be managed by a registered community housing provider, and ○ a restriction will be registered, before the date of the issue of the occupation certificate, against the title of the property on which development is to be carried out, in accordance with section 88E of the *Conveyancing Act 1919*, that will ensure that the requirements of paragraph (a) are met. • Subclause (1) does not apply to development on land owned by the Land and Housing Corporation or to a development application made by, or on behalf of, a public authority.	affordable rental housing for a period of at least 10 years. • Noted. • Noted.	✓ ✓
Clause 18: Subdivision	• Land on which development has been carried out under this Division may be subdivided with the consent of the consent authority.	• Noted.	✓

4.5 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

The provisions of the State Environmental Planning Policy (Infrastructure) 2007 are required to be addressed, as Clause 102 considers the impact of road noise or vibration on non-road development.

Hoxton Park Road to the south of the site is a classified road. Clause 102 of the Policy states the following:

> *"102 Impact of road noise or vibration on non-road development*
>
> *1) This clause applies to development for any of the following purposes that is on land in or adjacent to the road corridor for a freeway, a tollway or a transitway or any other road with an annual average daily traffic volume of more than 40,000 vehicles (based on the traffic volume data published on the website of RMS) and that the consent authority considers is likely to be adversely affected by road noise or vibration:*
>
> *(a) a building for residential use,*
>
> *(b) a place of public worship,*
>
> *(c) a hospital,*
>
> *(d) an educational establishment or child care centre.*
>
> *2) Before determining a development application for development to which this clause applies, the consent authority must take into consideration any guidelines that are issued by the Secretary for the purposes of this clause and published in the Gazette.*
>
> *3) If the development is for the purposes of a building for residential use, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded:*
>
> *(a) in any bedroom in the building—35 dB(A) at any time between 10 pm and 7 am,*
>
> *(b) anywhere else in the building (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.*
>
> *4) In this clause, freeway, tollway and transitway have the same meanings as they have in the Roads Act 1993".*

As the future residential land use is sensitive to traffic noise from Hoxton Park Road, a Noise Assessment Report has been prepared by NG Child & Associates. The report finds that "…the acoustic performance required at the proposed development can be readily achieved through the use of

standard structural design and materials considerations, including those reflected in the plans and drawings included...".

4.6 STATE ENVIRONMENTAL PLANNING POLICY No. 55 – REMEDIATION OF LAND

Clause 7 of the State Environmental Planning Policy No. 55 – Remediation of Land requires Council to consider whether land is contaminated prior to granting consent to the carrying out of any development on that land.

Should the land be contaminated Council must be satisfied that the land is suitable in a contaminated state for the proposed use. If the land requires remediation to be undertaken to make the land suitable for the proposed use, Council must be satisfied that the land will be remediated before the land is used for that purpose.

Reference should be made to the submitted Preliminary Contamination Assessments prepared by Ideal Geotech.

The submitted reports identify that with respect to Nos. 12 – 16 Willan Drive notes that the only potential sources of contamination on the site stem from fuel, oil, asbestos sheeting, lead based paints and pesticides which may have been stored within the garages at some point or asbestos/lead based paints used as part of the house construction.

The report continues to states that no history of dangerous manufacturing on site utilising heavy chemical or storage was documented. No record of contamination was recorded on the NSW EPA Contaminated Land Management record either.

The report concludes that *"Whilst the study indicated the site to be free of contamination, it is possible that contaminated soils may be present between sampling locations. Further sampling and chemical testing should be undertaken once demolition of the existing dwellings and garages has been undertaken".*

Similarly, the report prepared for Nos. 18 – 22 Willan Drive states, "*The contaminants that may be present across the site were low significance in terms of risk to human and environment receptors identified. However, a Detailed Site Investigation (DSI) is required to confirm the presence and extent of asbestos contamination to determine the suitability of the site for the proposed development application and address the data gaps identified".*

It is our opinion that the further investigation environmental planning

investigations are carried out following approval of the development application as a condition of the development consent. This will enable the investigation scope and any remediation or contamination management requirements to be specifically tailored to suit the final development scheme and layout.

Should the results of any further study indicate that contamination exists on site, an appropriate remediation and/or management strategy can be implemented at the advice of Ideal Geotech.

4.7 STATE ENVIRONMENTAL PLANNING POLICY No. 65 – DESIGN QUALITY OF RESIDENTIAL APARTMENT DEVELOPMENT

This State Policy aims to improve the design quality of residential apartment buildings of three or more storeys, incorporating four or more dwellings.

The policy sets out a series of design principles for Local Council or other consent authorities to consider when assessing development proposals for flats.

The proposed apartments are designed and accord with the design principles as stipulated in this State Environmental Planning Policy, which underwent a comprehensive review and commenced on 17 July 2015. All information and details shown within this Statement of Environmental Effects is based on the submitted plans prepared by DKO Architecture Pty. Ltd.

State Environmental Planning Policy No. 65 specifies nine design quality principles for residential apartment buildings. These principles are as follows:

Principle 1 Context and Neighbourhood Character
Principle 2 Built Form and Scale
Principle 3 Density
Principle 4 Sustainability
Principle 5 Landscape
Principle 6 Amenity
Principle 7 Safety
Principle 8 Housing Diversity and Social Interaction
Principle 9 Aesthetics

The aims and objectives of this policy are:

(1) "This policy aims to improve the design quality of

residential apartment development in New South Wales.

(2) This policy recognises that the design quality of residential apartment development is of significance for environmental planning for the state due to the economic, environmental, cultural and social benefits of high quality design.

(3) Improving the design quality of residential apartment buildings aims:

- *(a) to ensure that they contribute to the sustainable development of New South Wales;*
  - *(i) by providing sustainable housing in social and environmental terms; and*
  - *(ii) by being a long term asset to their neighbourhood; and*
  - *(iii) by achieving the urban planning policies for their regional and local contexts; and*
- *(b) to achieve better built form and aesthetics of buildings and the streetscapes and the public places they define; and*
- *(c) to better satisfy the increasing demand, the changing social and demographic profile of the community, and the needs of the widest range of people from childhood to old age, including those with disabilities; and*
- *(d) to maximise amenity, safety and security for the benefit of their occupants and the wider community; and*
- *(e) to minimise the consumption of energy from non-renewable resources, to conserve the environment and to reduce greenhouse gas emissions, and*
- *(f) to contribute to the provision of a variety of dwelling types to meet population growth, and*
- *(g) to support housing affordability, and*
- *(h) to facilitate the timely and efficient assessment of applications for development to which this Policy applies.*

(4) This Policy aims to provide:

- *(a) consistency of policy and mechanisms across the State; and*
- *(b) a framework for local and regional planning to achieve identified outcomes for specific places."*

The SEPP notes that good design is a creative process which, when applied to towns and cities, results in the development of great urban

places, buildings, streets, square and parks.

Good design is inextricably linked to its site and locality, responding to the landscape, existing built form, culture and attitudes. It provides sustainable living environments, both in private and public areas.

Furthermore, good design serves the public interest and includes appropriate innovation to respond to technical, social, aesthetic, economic, and environmental challenges.

These nine design quality principles do not generate design solutions, but provide a guide to achieving good design and the means of evaluating the merit of proposed solutions.

The following comments are provided to address the 9 Design Principles:

Principle 1 Context and Neighbourhood Character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Comment:

The subject site is located within the R4 High Density zone and the proposed residential flat building is therefore considered to reflect the desired future character of the area.

The proposal is considered an 'infill' development that responds to the desired future character of the area. Where possible, the proposal has made considerable effort to achieve the objectives and controls of State Environmental Planning Policy No.65 where detailed within this Statement of Environmental Effects.

Principle 2 Built Form and Scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

Comment:

Development in the area is typically low density residential in nature comprising of predominantly single storey and fibro dwellings. Immediately opposite the site however at 17 – 21 Willan Drive are examples of older style residential flat buildings. In view of the R4 High Density Residential zone afforded to the site, the area will inevitably undergo a transition to higher density building forms with the proposed development representative of this desired future character.

The area surrounding the site comprises of Macarthur Community College located to the north west of the site, with Fassrien Park located further to the north. To the south is Hoxton Park Road, where predominantly general industrial buildings and bulky goods outlets are located.

The proposal endeavours to represent a scale appropriate to the desired future character of the area as identified by the LEP and DCP.

The scale of the proposal has also been carefully designed to provide a balance between the amenity for the future occupants and that of existing properties adjoining the site.

Principle 3 Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Comment:

The development provides for new residential accommodation in a location where there is a demand for such accommodation.

The proposed 64 units on the site is considered suitable, given the development is built sympathetic to the bulk and scale of future development. The site is also well located to public transport, shops,

services and amenities and is consistent with the Apartment Design Guidelines and Council's planning instruments.

Principle 4 Sustainability

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

Comment:

Where possible, the principles of energy efficient and environmental sensitive design and these have been incorporated into the development.

The proposed development makes efficient use of natural resources. As detailed, the units have been designed to use natural cross ventilation and natural light. These passive design principles reduce energy consumption.

Energy efficiency parameters prescribed by the BASIX Certificate will ensure that the development meet the required targets.

Principle 5 Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management.

Comment:

Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management.

The proposal and site appearance will be improved by the careful use of landscaping within and around the site. Deep soil areas have been incorporated throughout the perimeter of the site, allowing for plantings along the boundaries and providing for visual benefit to the street frontages.

Principle 6 Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.

Comment:

Careful consideration has been given to the orientation and positioning of the development and the design and layout of units to ensure a high level of visual and acoustic privacy is maintained between neighbouring properties. This has been further demonstrated in the architectural plans prepared by DKO Pty. Ltd.

The proposal provides future occupants with a high level of amenity in terms of solar access and good outlook to habitable areas, as well as to balconies and private open space.

Careful planning of the proposed built form provides 63% of apartments to achieve cross ventilation due to their aspect, design and internal layout planning.

The development has been formed to achieve solar access to 81% of its units. Living areas and balconies have been designed to address north, east and west as much as possible with external shading devices to prevent excessive heat load on apartments during the summer period.

All apartments have a private balconies adjacent to living areas with a minimum depth of two metres, consistent with this policy.

All dwellings achieve 2800mm ceiling heights to all habitable rooms. Generous amount of private storage is provided for each dwelling.

Other amenity issues include the provision of lifts servicing all floors of the development. Four adaptable units are also provided. A Disability Access Report has been prepared by Cheung Access which demonstrates

compliances with the relevant Australian Standards.

Principle 7 Safety

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

Comment:

The proposed development has had regard to the principles of 'Safer by Design'. Aspects such as natural surveillance and controlled access have all been taken into consideration.

The proposed development has made provisions for natural surveillance for both communal and public areas. The common areas will be appropriately lit to ensure safety and visibility after dark.

The entrance to the development, including private entries to the north facing ground floor dwellings, are clearly visible from the street. Access to the building will be through a controlled security system. An intercom system will be provided for visitor access.

The street numbering and the identification of the building will be clear to prevent unintended access and to assist persons trying to find the building.

Principle 8 Housing Diversity and Social Interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

Comment:

Housing affordability in Sydney is becoming increasingly difficult. Our

client is a recognised social housing provider who strive to provide for quality affordable housing developments.

The building itself integrates a number of sustainable features exceeding the minimum standards prescribed by BASIX. In fact, it is intended that the building be designed and built to a 4 star Green Star initiatives.

It is important to acknowledge that unlike SEPP (Affordable Rental Housing) 2009, which requires that up to 50% of the dwellings be offered as affordable housing for a period of 10 years, all of the proposed 64 units will be nominated as affordable housing to be managed by our client, St George Community Housing.

The proposal therefore provides a social benefit to the community providing for new, affordable accommodation in an area well serviced by public transport services and local infrastructure.

The proposed development is considered to be of a high architectural standard promoting solar access and cross ventilation. A mix of units is proposed ranging between one and two bedroom units. The proposal therefore addresses lifestyle and affordability issues of the immediate area.

Principle 9 Aesthetics

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of well-designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Comment:

It is considered that the proposed development incorporates the composition of building elements, textures, materials and finishes which all contribute to an overall high quality and aesthetically appealing development. The building materials have been carefully chosen to respond to the existing material context and ongoing building maintenance. The internal functions and structure have been clearly expressed through the articulation and massing of the facades.

Design Verification Statement:

A Design Verification Statement has been prepared by DKO Architecture Pty. Ltd., and is submitted with this development application in

accordance with State Environmental Planning Policy No. 65. Apartment Design Guide.

Further to the above design quality principles, Clause 30(2) of State Environmental Planning Policy No. 65 also requires residential apartment development to be designed in accordance with the Department of Planning's publication entitled *Apartment Design Guide*. The following table outlines compliance with the Apartment Design Guide, where numerical requirements are specified.

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
PART 3 - SITING THE DEVELOPMENT			
SITE ANALYSIS	3A-1 - Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.	Reference should be made to the submitted plans which include a site analysis plan.	Yes
ORIENTATION	3B-1 - Building types and layouts respond to the streetscape and site while optimising solar access within the development.	The proposed RFB has been designed to address Willan Drive through the provision of pedestrian and vehicle access points. All north facing ground floor units are provided with private entries. The site is provided with a north-south orientation, and where possible units have been orientated to maximise solar access.	Yes
	3B-2 - Overshadowing of neighbouring properties is minimised during mid-winter.	As detailed, the proposal will exceed the maximum building height control by some 2.83 metres. Careful consideration has been given to the siting of the additional height to minimise any potential overshadowing to the adjoining sites.	Yes
PUBLIC DOMAIN INTERFACE	3C-1 – Transition between private and public domain is achieved without compromising safety and security.	All common areas and building entrances will be clearly delineated at street level. The vehicular access is separated from the pedestrian access to the building, and will be clearly identifiable along the Willan Drive frontage to ensure that pedestrian safety is provided. Security access will be provided to the building.	Yes
	3C-2 – Amenity of the public domain is retained and enhanced.	The proposed front setback will be densely landscaped to complement the residential building. Garbage storage areas and services will be located adjacent to the carpark and therefore not visible to the street.	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
		Graffiti resistant and easily cleanable materials will be used. The subject site does not adjoin a public park or open space.	
COMMUNAL AND PUBLIC OPEN SPACE	3D-1 – An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping *Design criteria:* *1.* Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)	The development provides for 612m^2 of communal open space at ground level and an additional 238m² at roof level. This is a total of 850m² or 26%. The proposed communal space area includes a roof garden, BBQ and seating areas which offer good outdoor space for occupants. Reference should also be made to Part 1 of this report where a discussion is provided regarding the earlier DEP meeting.	Yes
	2. Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3pm on 21 June (mid winter).	The rooftop communal open space is orientated to the north and will receive good solar access throughout the day.	Yes
	3D-2 – Communal open space is design to allow for a range of activities, respond to site conditions and be attractive and inviting.	The communal open space has been designed to incorporate passive areas for socialising BBQ areas and drying courtyards.	Yes
	3D-3 – Communal open space is designed to maximise safety.	The communal open space area at roof level is accessible by lifts with security access (i.e. residents and their visitors only, not the general public). The area will be well lit at all times.	Yes

<table>
<tr><th>STANDARD</th><th>OBJECTIVE</th><th>PROVIDED</th><th>COMPLIANCE</th></tr>
<tr><td></td><td></td><td>Communal space is also provided at ground level.</td><td></td></tr>
<tr><td></td><td>3D-4 – Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.</td><td>Not applicable.</td><td>N/A</td></tr>
<tr><td>DEEP SOIL ZONES</td><td>3E-1 - Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality

Design criteria:
1. Deep soil zones are to meet the following minimum requirements:
<table>
<tr><th>Site area</th><th>Minimum dimensions</th><th>Deep soil zone (% of site area)</th></tr>
<tr><td>less than 650m²</td><td>-</td><td rowspan="4">7%</td></tr>
<tr><td>650m² - 1,500m²</td><td>3m</td></tr>
<tr><td>greater than 1,500m²</td><td>6m</td></tr>
<tr><td>greater than 1,500m² with significant existing tree cover</td><td>6m</td></tr>
</table></td><td>Based on a site area of 3,312m², a minimum deep soil zone of 231.84m² is required, with minimum dimensions of 6m.

The development provides for 262m^2, or 8% of the subject site as deep soil planting. Once subdivided, each allotment will maintain a deep soil area representing 8% of the new site area within the rear setback.

It is worthy to note that the site overall provides for an additional 239m² of deep soil planting across the site with a minimum dimension of 3m.</td><td>Yes</td></tr>
<tr><td>VISUAL PRIVACY</td><td>3F-1 - Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy

Design criteria:
1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances between building to</td><td>At ground – level 3, a setback of 6m is required between habitable rooms and balconies, or 3m between non-habitable rooms.</td><td>Yes</td></tr>
</table>

<table>
<tr><th>STANDARD</th><th>OBJECTIVE</th><th>PROVIDED</th><th>COMPLIANCE</th></tr>
<tr><td></td><td>the side and rear boundaries are as follows:
<table>
<tr><th>Building height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr>
<tr><td>up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr>
<tr><td>up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr>
<tr><td>over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr>
</table>
Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)
Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties.</td><td>To the eastern and western side setbacks, where a setback of 3m is proposed, there are no windows proposed along this section of the elevation ensuring the privacy of the adjoining building is protected. To the rear of the building, the development has been stepped in 6m to both side setbacks enabling the provision of balconies and ground level courtyards. Where the ground level courtyards encroach into the 6m setback, the provision of side boundary fencing will provide for an adequate buffer between the subject and adjoining properties.

A minimum 6m setback is proposed to the rear boundary at each level.</td><td></td></tr>
<tr><td></td><td>3F-2 - Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.</td><td>Balconies have been located off living rooms and orientated to either street frontage rather than to a side boundary. Fin walls at the edge of balconies will prevent overlooking between units and neighbouring properties.

Windows within the development have been offset.</td><td>Yes</td></tr>
<tr><td>PEDESTRIAN ACCESS AND ENTRIES</td><td>3G-1 - Building entries and pedestrian access connects to and addresses the public domain.</td><td>Primary access to the building will be via Willan Drive, although all north facing ground floor dwellings are provided with private entries. The pedestrian and vehicle access points have been clearly separated to minimise conflicts.</td><td>Yes</td></tr>
<tr><td></td><td>3G-2 - Access, entries and pathways are accessible and easy to identify.</td><td>The entry points to the building will be clearly visible and identifiable from the street.</td><td>Yes</td></tr>
</table>

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	3G-3 - Large sites provide pedestrian links for access to streets and connection to destinations	Not applicable in this instance.	N/A
VEHICLE ACCESS	3H-1 - Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.	A central vehicle access point is proposed between the two buildings.	Yes
BICYCLE AND CAR PARKING	3J-1 - Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas *Design criteria:* *1. For development in the following locations:* • *on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or* • *on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre* *the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, <u>whichever is less</u>* *The car parking needs for a development must be provided off street.*	Reference should be made to Section 4.4 of this report as car parking has been provided in accordance with the provisions of SEPP (Affordable Rental Housing) 2009.	Yes
	3J-2 – Parking and facilities are provided for other	Bicycle spaces are provided adjacent to the at grade	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	modes of transport	car park, towards the rear of the site.	
	3J-3 – Car park design and access is safe and secure.	The car parking areas will be well lit.	Yes
	3J-4 – Visual and environmental impacts of underground car parking are minimised.	Not applicable.	N/A
	3J-5 – Visual and environmental impacts of on-grade car parking are minimised.	Car spaces have been designed in a logical, efficient structural grid to ensure vehicles can enter and exit the site in a forward direction.	Yes
	3J-6 – Visual and environmental impacts of above ground enclosed car parking are minimised	Not applicable.	N/A
SOLAR AND DAYLIGHT ACCESS	4A-1 - To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space. *Design criteria:* *1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas*	81% of the units over the combined development site will achieve a minimum of 2 hours solar access.	Yes
	2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter	Not applicable.	N/A
	3. A maximum of 15% of apartments in a	8 out of the 64 units or 12.5% of the units over the	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	building receive no direct sunlight between 9 am and 3 pm at mid winter	combined development site will receive no solar access.	
	4A-2 – Daylight access is maximised where sunlight is limited.	Where possible, units have been provided with a northern aspect to maximise solar access.	Yes
	4A-3 – Design incorporates shading and glare control, particularly for warmer months.	A thermal assessment has been carried out for the development, demonstrating that the required heating and cooling targets of BASIX are capable of being satisfied.	Yes
NATURAL VENTILATION	4B-1 – All habitable rooms are naturally ventilated.	63% of units over the combined development site will achieve natural ventilation.	Yes
	4B-2 – The layout and design of single aspect apartments maximises natural ventilation.	The proposal provides for 12 single aspect units. Where possible, large areas of glazing are proposed to the bedrooms and living areas to maximise natural ventilation.	Yes
	4B-3 - The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents *Design criteria:* *1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed* *2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.*	 63% of apartments are naturally cross ventilated. The apartments comply with the maximum depth.	 Yes Yes
CEILING	4C-1 - Ceiling height achieves sufficient natural		

<table>
<tr><th>STANDARD</th><th>OBJECTIVE</th><th>PROVIDED</th><th>COMPLIANCE</th></tr>
<tr><td>HEIGHTS</td><td>ventilation and daylight access

Design criteria:
1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:
<table>
<tr><th colspan="2">Minimum ceiling height
for apartment and mixed use buildings</th></tr>
<tr><td>Habitable rooms</td><td>2.7m</td></tr>
<tr><td>Non-habitable</td><td>2.4m</td></tr>
<tr><td>For 2 storey apartments</td><td>2.7m for main living area floor
2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr>
<tr><td>Attic spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr>
<tr><td>If located in mixed used areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr>
</table></td><td>The proposal will provide for 2.8m floor to ceiling heights.</td><td>Yes</td></tr>
<tr><td></td><td>4C-2 - Ceiling height increases the sense of space in apartments and provides for well proportioned rooms.</td><td>Refer to comments above.</td><td>Yes</td></tr>
<tr><td></td><td>4C-3 - Ceiling heights contribute to the flexibility of building use over the life of the building.</td><td>Refer to comments above.</td><td>Yes</td></tr>
<tr><td>APARTMENT SIZE AND LAYOUT</td><td>4D-1 - The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.

Design criteria:
1. Apartments are required to have the following minimum internal areas:</td><td>The proposed 1 bedroom apartments provide for one bathroom; with a minimum area of 50m².</td><td>Yes</td></tr>
</table>

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	<table><tr><th>Apartment type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedroom</td><td>70m²</td></tr><tr><td>3 bedroom</td><td>90m²</td></tr></table> *The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m^2 each.* *A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m2 each.* *2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms*	The proposed 2 bedroom apartments with one bathroom are minimum 70m² in area. Every habitable room has a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room.	 Yes
	4D-2 – Environmental performance of the apartment is maximised. *Design criteria:* *1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height* *2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.*	 Complies. All units comply.	 Yes Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	4D-3 – Apartment layouts are designed to accommodate a variety of household activities and needs *Design criteria:* *1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space)* *2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)* *3.* Living rooms or combined living/dining rooms have a minimum width of: *a. 3.6m for studio and 1 bedroom apartments* *b. 4m for 2 and 3 bedroom apartments* *4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.*	Master bedrooms have a minimum area of 10m². Second/third bedrooms are provided with a minimum area of 9m². Bedrooms are compliant. The units are provided with living areas that adjoin kitchen and dining areas. The proportions are adequate. Complies.	Yes Yes Yes Yes
PRIVATE OPEN SPACE AND BALCONIES	4E-1 – Apartments provide appropriately sized private open space and balconies to enhance residential amenity. *Design criteria:* *1. All apartments are required to have primary balconies as follows:*	The one bedroom apartments are provided with a balcony off the living area, at least 8m² in size. The minimum balcony size for the 2 bed apartments is 10m².	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	<table><tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr><tr><td>Studio apartments</td><td>4m²</td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>8m²</td><td>2m</td></tr><tr><td>2 bedroom apartments</td><td>10m²</td><td>2m</td></tr><tr><td>3+ bedroom apartments</td><td>12m²</td><td>2.4m</td></tr></table> *The minimum balcony depth to be counted as contributing to the balcony area is 1m.* 2. *For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m.*	All ground level units are provided with a private courtyard measuring approximately 20m^2.	Yes
	4E-2 - Primary private open space and balconies are appropriately located to enhance liveability for residents.	All balconies are located adjacent to the open plan living/dining/kitchen area.	Yes
	4E-3 - Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.	The balconies will contribute to the built form and articulation of the façades.	Yes
	4E-4 - Private open space and balcony design maximises safety	The proposed balconies have been designed to avoid opportunities for climbing and falls.	Yes
COMMON CIRCULATION AND SPACES	4F-1 - Common circulation spaces achieve good amenity and properly service the number of apartments *Design criteria:* *1.* The maximum number of apartments off a circulation core on a single level is	The maximum number of units off a circulation core is nine. It is noted that the Design Guidance under	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	eight.	ADG notes that *"Where design criteria 1 is not met, no more than 12 apartments should be provided off a circulation core on a single level".* As the proposal only provides for a maximum of 9 units on a single level, the design guidance is met.	
	2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Not applicable.	N/A
	4F-2 - Common circulation spaces promote safety and provide for social interaction between residents	The proposed corridors have been designed in proximity to the lift core, to ensure short, straight and clear sight lines. Circulation spaces will be well lit. Legible signage will be provided for apartment numbers, common numbers and general wayfinding.	Yes
STORAGE	4G-1 - Adequate, well designed storage is provided in each apartment *Design criteria:* *1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:*	All 1 bedroom units have been provided with a minimum of 8m³ of storage. All 2 bedroom units have been provided with a minimum of 8m³ of storage.	Yes Yes

Dwelling type	Storage size volume
Studio apartments	4m³
1 bedroom apartments	6m³
2 bedroom apartments	8m³
3+ bedroom apartments	10m³

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	At least 50% of the required storage is to be located within the apartment.		
	4G-2 - Additional storage is conveniently located, accessible and nominated for apartments.	All storage will be located within the units themselves. The site does not provide for any alternative location, given there is no basement level proposed.	Variation is sought
ACOUSTIC PRIVACY	4H-1 - Noise transfer is minimised through the siting of buildings and building layout	Appropriate construction materials will be utilised to ensure noise transfer is minimised across units.	Yes
	4H-2 - Noise impacts are mitigated within apartments through layout and acoustic treatments.	Where possible, living areas have been designed to adjoin living areas and bedrooms adjoin bedrooms to minimise noise transfer between the units.	Yes
NOISE AND POLLUTION	4J-1 - In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings.	The site is located within an established residential zone. The site is located some distance from Hoxton Park Road and is unlikely to be affected by an traffic noise as reinforced by the Acoustic Report.	Yes
	4J-2 - Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	The materials and finishes will assist in mitigating any noise transmission to the units.	Yes
APARTMENT MIX	4K-1 - A range of apartment types and sizes is provided to cater for different household types now and into the future.	The development provides for a mix of 1 and 2 bedroom apartments, including adaptable designs.	Yes
	4K-2 - The apartment mix is distributed to suitable locations within the building.	The apartment mix and the number of accessible apartments are distributed across the floor levels.	Yes
GROUND FLOOR APARTMENTS	4L-1 - Street frontage activity is maximised where ground floor apartments are located	The proposal includes significant landscaping at ground level to provide for visual interest. The proposed fences and pathways clearly delineate areas of public and private open space.	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	4L-2 - Design of ground floor apartments delivers amenity and safety for residents	Private entries are proposed to all north facing ground floor units. Fences and gates are proposed to clearly delineate areas of private and common space. The proposed landscaping within the front setback will allow for visual privacy to be maintained.	Yes
FACADES	4M-1 - Building facades provide visual interest along the street while respecting the character of the local area.	All elevations of the building will be well articulated through a mix of materials and finishes creating vertical elements in the building design and a visual point of interest. Glazed elements have been maximised to the north to capture natural light and solar access. Refer also to comments made under Section 3 of this report.	Yes
	4M-2 - Building functions are expressed by the façade.	The entry points to the building have been clearly defined to both street frontages as discussed in this Statement.	Yes
ROOF DESIGN	4N-1 – Roof treatments are integrated into the building design and positively respond to the street.	The roof level has neem designed to be subservient to the built form. The lift overruns are centralised to minimise visual impact.	Yes
	4N-2 - Opportunities to use roof space for residential accommodation and open space are maximised	The proposed development uses the roof space for communal purposes, including gardens, and a BBQ and seating area. The communal areas are orientated to the north, receiving excellent solar access.	Yes
	4N-3 – Roof design incorporates sustainability features.	Refer to the submitted plans for landscape species.	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
LANDSCAPE DESIGN	4O-1 – Landscape design is viable and sustainable	The proposed plantings include low water use plantings. Reference should also be made to the submitted BASIX certificate.	Yes
	4O-2 – Landscape design contributes to the streetscape and amenity.	Reference should be made to the submitted landscape plans.	Yes
PLANTING ON STRUCTURES	4P-1 – Appropriate soil profiles are provided.	Reference should be made to the submitted landscape plans.	Yes
	4P-2 – Plant growth is optimised with appropriate selection and maintenance.	Reference should be made to the submitted landscape plans.	Yes
	4P-3 - Planting on structures contributes to the quality and amenity of communal and public open spaces	Reference should be made to the submitted landscape plans.	Yes
UNIVERSAL DESIGN	4Q-1 - Universal design features are included in apartment design to promote flexible housing for all community members.	The proposed development includes six adaptable apartments, promoting flexible housing.	Yes
	4Q-2 - A variety of apartments with adaptable designs are provided.	Refer to comments above.	Yes
	4Q-3 - Apartment layouts are flexible and accommodate a range of lifestyle needs.	The proposal comprises 1 and 2 bedrooms, with some units designed to be adaptable, as detailed.	Yes
ADAPTIVE REUSE	4R-1 - New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place.	Not applicable.	N/A
	4R-2 - Adapted buildings provide residential amenity while not precluding future adaptive reuse.	Not applicable.	N/A
MIXED USE	4S-1 - Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.	Not applicable.	N/A

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	4S-2 - Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents.	Not applicable.	N/A
AWNINGS AND SIGNAGE	4T-1 - Awnings are well located and complement and integrate with the building design.	Not applicable.	N/A
	4T-2 - Signage responds to the context and desired streetscape character.	Not applicable.	N/A
ENERGY EFFICIENCY	4U-1 - Development incorporates passive environmental design.	Windows and balconies have been orientated to the north, as much as possible to maximise solar access. The apartments satisfy the provisions of BASIX.	Yes
	4U-2 - Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer.	The proposal satisfies the thermal targets of BASIX. The use of the selected building materials positively contributes to heat storage.	Yes
	4U-3 - Adequate natural ventilation minimises the need for mechanical ventilation.	The ventilation achieved in the building has been discussed within this Statement.	Yes
WATER MANAGEMENT AND CONSERVATION	4V-1 - Potable water use is minimised.	Refer to submitted BASIX Certificates.	Yes
	4V-2 - Urban stormwater is treated on site before being discharged to receiving waters.	Refer to submitted stormwater plans.	Yes
	4V-3 – Flood management systems are integrated into site design.	Refer to submitted stormwater plans.	Yes
WASTE MANAGEMENT	4W-1 - Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.	Garbage storage areas are located within the ground floor service area.	Yes
	4W-2 - Domestic waste is minimised by providing safe and convenient source separation and recycling.	Adequate storage area is provided within the units to accommodate two day's waste.	Yes
BUILDING MAINTENANCE	4X-1 – Building design detail provides protection from weathering.	The proposal incorporates overhangs where balconies cantilever over the levels below, to provide some protection to walls.	Yes

STANDARD	OBJECTIVE	PROVIDED	COMPLIANCE
	4X-2 – Systems and access enable ease of maintenance.	Centralised maintenance, services and areas are provided for easy access off the centralised driveway.	Yes
	4X-3 – Material selection reduces ongoing maintenance costs.	Graffiti resistant materials will be used. The proposed external walls are robust and durable materials that weather well and improve with time.	Yes

4.8 GREATER METROPOLITAN REGIONAL ENVIRONMENTAL PLAN No. 2 – GEORGES RIVER

The proposed development accords with the outcomes and objectives of the Greater Metropolitan Regional Environmental Plan No.2. Appropriate sediment and control devices will be placed on the site during site works to ensure that pollutants and runoff from the site will not impact on the Georges River. Reference is to be made to the plans and documents submitted with this application.

4.9 SECTION 79C CONSIDERATIONS

The following section provides an assessment of the proposed development in accordance with the provisions of Section 79C of the Environmental Planning and Assessment Act, 1979.

(1) Matters for consideration – general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development, the subject of the development application.

(a) The provisions of:

(i) any environmental planning instrument

The proposed development is permitted with the consent of Council under Liverpool Local Environmental Plan 2008.

The proposal meets the objectives of the Liverpool Local Environmental Plan 2008. Although a variation is sought to the height control, the non-compliance is limited to the proposed central lift and stairwell which provides access to the rooftop level communal open space. The proposal therefore achieves a better planning outcome as demonstrated in the submitted Clause 4.6 variation.

(ii) any draft environmental planning instrument that is or has been placed on public exhibition

Not applicable.

(iii) any development control plan

The proposal generally accords with the relevant provisions of the Liverpool Development Control Plan 2008. Where variations to

controls are sought, an assessment of the potential impacts is detailed within this Statement of Environmental Effects.

(iv) any matters prescribed by the regulations

The proposal accords with the objectives and provisions of the relevant State Environmental Planning Policies as detailed within this Statement of Environmental Effects. The proposal satisfies the parking requirements under State Environmental Planning Policy (Affordable Rental Housing) 2009.

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

(i) Impact on the natural environment:

The proposed development will not have an adverse impact on the natural environment. The site does not contain any significant vegetation. New plantings will be introduced as per the proposed landscape plan. The proposed landscape plan will improve the amenity of the site and the surrounding streetscape.

(ii) Impact on the built environment:

The works proposed are consistent with the built form and desired future character of the area.

(iii) Social and Economic impacts in the locality:

The development will have a positive social and economic impact on the area. The development will represent a significant improvement in terms of the built form on the site and will suit the future desired character of Cartwright.

The proposal will directly benefit the locality in terms of increased affordable residential accommodation. The site is located within proximity of the Liverpool City Centre and housing within this broader area is highly sought after. The provision of increased housing will assist in meeting the demands in this suburb.

(c) the suitability of the site for development

The land is appropriately zoned to permit the proposed development and meets the long term objectives of the zone and the objectives of the Liverpool Local Environmental Plan 2008.

(d) any submissions made in accordance with this Act or the regulations

Not relevant at the time of submission.

(e) the public interest

The interest of the public will be served by approval of this development.

As stated, the proposed development will increase the housing choice available in this location, which is well serviced by public transport, services and shops. The proposal provides for a mix of one and two bedroom apartments, as well as adaptable apartments.

The site is well serviced by public transport, making access to and from the site easy for the future occupants. Notwithstanding this, the site also provides for adequate on-site parking.

5.0 CONCLUSION

This Statement of Environmental Effects has been prepared in support of the proposed development of the site at 12 – 22 Willan Drive, Cartwright.

It has been demonstrated in this Statement that the proposal is satisfactory and is generally consistent with the controls applying to the site under the Liverpool Local Environmental Plan 2008 and Liverpool Development Control Plan 2008. Where variations are sought, justifications have been provided to show that the development is suitable for the site and broader area.

The development will result in a high quality development which will cater to the growth of the Liverpool locality whilst being sympathetic in its design, bulk and scale to the adjoining properties.

The proposed development has been assessed in accordance with the provisions of Section 79C of the Environmental Planning and Assessment Act, 1979, and found to be satisfactory.

The development does not result in any unreasonable impacts to adjoining properties and is conducive to Council's policies. Accordingly, it is sought that Council approve the application.

GAT & Associates
Plan 2981

		Draft	Final
Prepared by: Melissa Rodrigues	**MR**	✓	✓
Checked by: Gerard Turrisi	**GT**	✓	✓