



## **Metro North-West Joint Development Assessment Panel Agenda**

**Meeting Date and Time:** 23 July 2019, 9:00 AM  
**Meeting Number:** MNWJDAP/264  
**Meeting Venue:** City of Joondalup  
90 Boas Avenue, Joondalup

### **Attendance**

#### **DAP Members**

Ms Karen Hyde (Presiding Member)  
Mr Brian Curtis (A/Deputy Presiding Member)  
Mr Fred Zuideveld (Specialist Member)  
Cr Christine Hamilton-Prime (Local Government Member, City of Joondalup)  
Cr Philippa Taylor (Local Government Member, City of Joondalup)

#### **Officers in attendance**

Ms Alisa Spicer (City of Joondalup)  
Mr Chris Leigh (City of Joondalup)

#### **Minute Secretary**

Ms Wendy Cowley (City of Joondalup)  
Ms Deborah Gouges (City of Joondalup)

#### **Applicants and Submitters**

Mr Gerry Carey  
Ms Suzanne Thompson  
Mr Giles Harden Jones (HJ Architects)  
Mr Carlo Famiano (CF Town Planning & Development)

#### **Members of the Public / Media**

Nil

### **1. Declaration of Opening**

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

### **2. Apologies**

Ms Sheryl Chaffer (Deputy Presiding Member)



### 3. Members on Leave of Absence

Panel member, Ms Sheryl Chaffer has been granted leave of absence by the Director General for the period of 22 July 2019 to 29 July 2019 inclusive.

### 4. Noting of Minutes

Signed minutes of previous meetings are available on the [DAP website](#).

### 5. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

### 6. Disclosure of Interests

Member	Item	Nature of Interest
Ms Karen Hyde	8.1	Impartiality Interest – Taylor Burrell Barnett (TBB), the firm Ms Hyde is a consultant for, was appointed by the City of Joondalup in 2018 to advise on the future planning framework for the Housing Opportunity Areas. This work was completed at the beginning of 2019 and TBB is not engaged by the City currently on this project.

### 7. Deputations and Presentations

- 7.1** Mr Gerry Carey presenting against the application at Item 8.1. The presentation will address The Taylor Burrell Barnett draft planning framework, issued on 12 March, recommends that developments within cul-de-sacs require special consideration.
- 7.2** Ms Suzanne Thompson presenting against the application at Item 8.1. The presentation will address concerns regarding the discretions, failure to meet SPP.7.3 Vol. 2 objectives and unsuitability of this development for the cul-de-sac.
- 7.3** Mr Carlo Famiano (CF Town Planning & Development) presenting in support of the application at Item 8.1. The presentation will be against the he recommendation for refusal and request that the application be approved.
- 7.4** Mr Giles Harden Jones (HJ Architects) presenting in support of the application at Item 8.1. The presentation will address reasons for approval.

The City of Joondalup may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.



## 8. Form 1 – Responsible Authority Reports – DAP Applications

<b>8.1</b>	Property Location:	Lots 104 and 105 (8 and 10) Brechin Court, Duncraig
	Development Description:	16 Multiple Dwellings
	Applicant:	Harden Jones Architects
	Owner:	Mr Heinrich Arnoldus Kuenen
	Responsible Authority:	City of Joondalup
	DAP File No:	DAP/19/01557

## 9. Form 2 – Responsible Authority Reports – Amending or cancelling DAP development approval

Nil

## 10. Appeals to the State Administrative Tribunal

Current Applications		
LG Name	Property Location	Application Description
City of Joondalup	Lot 96 & 97 (9 & 11) Davallia Road, Duncraig	13 Multiple Dwellings
City of Stirling	Lot 101 (191) Balcatta Road, Balcatta	Extension to the Existing Bunnings Warehouse
City of Stirling	Lot 90 (38) Geneff Street & Lot 89 (59) Hertha Road, Innaloo	Multiple Dwelling Development

Finalised Applications		
LG Name	Property Location	Application Description
City of Joondalup	Portion of 9040 (34) Kallatina Drive, Iluka	Mixed Commercial Centre (Iluka Plaza)

## 11. General Business / Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2017 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.



## Form 1 – Responsible Authority Report (Regulation 12)

<b>Property Location:</b>	Lots 104 and 105 (8 and 10) Brechin Court, Duncraig
<b>Development Description:</b>	16 Multiple Dwellings
<b>DAP Name:</b>	Metro North-West JDAP
<b>Applicant:</b>	Harden Jones Architects
<b>Owner:</b>	Mr Heinrich Arnoldus Kuenen
<b>Value of Development:</b>	\$2.45 million
<b>LG Reference:</b>	DA18/1389
<b>Responsible Authority:</b>	City of Joondalup
<b>Authorising Officer:</b>	Dale Page, Director Planning and Community Development
<b>DAP File No:</b>	DAP/19/01557
<b>Report Due Date:</b>	10 July 2019
<b>Application Received Date:</b>	18 December 2018
<b>Application Process Days:</b>	90 Days
<b>Attachment(s):</b>	1: Location plan 2: Development Plans and Elevations 3: Building Perspective 4: Context plans 5: Shadow diagram 6: Landscape Plan 7: Solar access and cross ventilation diagrams 8: Waste Management Plan 9: Transport Impact Statement 10: Environmental Sustainable Design Checklist 11: Applicant's submission – SPP7.3 Element Objectives 12: Summary SPP7.3 assessment

### Officer Recommendation:

That the Metro North-West JDAP resolves to:

**Refuse** DAP Application reference DAP/19/01557 and accompanying plans (Attachment 2) in accordance with Clause 68 of Schedule 2, Part 9 of the *Planning and Development (Local Planning Schemes) Regulations 2015*, the *Metropolitan Region Scheme* and the provisions of the *City of Joondalup Local Planning Scheme No. 3*, for the following reasons:

1. The proposal does not satisfy the matters to be considered under clause 67(c), Schedule 2, Part 9 of the *Planning and Development (Local Planning Schemes) Regulations 2015*, as:
  - i. The proposal does not satisfy the *2.4 Side and rear setbacks* element objectives of State Planning Policy 7.3, as the setbacks do not provide adequate separation between neighbouring properties and the



development does not provide an appropriate transition between sites with different intensity of development.

- ii. The proposal does not satisfy 2.5 *Plot Ratio* element objective of *State Planning Policy 7.3*, as building bulk and scale of the development is inappropriate for the existing and planned character of the area.
- iii. The proposal does not satisfy 2.6 *Building depth* element objectives of *State Planning Policy 7.3*, as it results in undue amenity impacts for future occupants due to the building depth not providing apartment layouts and room depths to optimise daylight and solar access, and built form is not appropriately articulated to allow sufficient access of daylight.
- iv. The proposal does not satisfy 2.7 *Building separation* element objectives of *State Planning Policy 7.3*, as it results in undue impacts to residential amenity of neighbouring properties including visual privacy impacts and sunlight and daylight access.
- v. The proposal does not satisfy 3.2 *Orientation* element objective of *State Planning Policy 7.3*, as the building form and orientation does not minimise overshadowing of open space of the neighbouring property.
- vi. The proposal does not satisfy 3.3 *Tree canopy and deep areas* element objective of *State Planning Policy 7.3*, as inadequate measures have been taken to improve tree canopy (long term).
- vii. The proposal does not satisfy 3.4 *Communal open space* element objectives of *State Planning Policy 7.3*, as the communal open space does not enhance or provide a high level of amenity for residents.
- viii. The proposal does not satisfy 3.5 *Visual privacy* element objective of *State Planning Policy 7.3*, as the orientation and design of the building's windows do not minimise direct overlooking of private outdoor living areas of neighbouring sites.
- ix. The proposal does not satisfy 3.6 *Public domain interface* element objectives of *State Planning Policy 7.3*, as there is an inappropriate transition between private and public domain and does not enhance the privacy and safety of residents.
- x. The proposal does not satisfy 3.9 *Car and bicycle parking* element objective of *State Planning Policy 7.3*, as the provision of carparking is not appropriate for the site's location and the positioning of visitor car parking does not minimise negative visual and environmental impacts on amenity and the streetscape.
- xi. The proposal does not satisfy 4.1 *Solar and daylight access* element objectives of *State Planning Policy 7.3*, as the development is not sited or designed to optimise the number of dwellings receiving winter sunlight via windows to habitable rooms.
- xii. The proposal does not satisfy 4.3 *Size and layout of dwellings* element objective of *State Planning Policy 7.3*, as room designs do not facilitate good daylight access.

- xiii. The proposal does not satisfy 4.9 *Universal design* element objective of *State Planning Policy 7.3*, as inadequate universal design features are provided for people living with disabilities or limited mobility and the design does not facilitate ageing in place.
  - xiv. The proposal does not satisfy 4.12 *Landscape design* element objectives of *State Planning Policy 7.3*, as insufficient landscaping is provided to enhance the streetscape, improve the visual appeal and comfort of open space areas, or provide an attractive outlook for habitable rooms.
2. The proposal does not satisfy the matters to be considered under clause 67(m), clause(p) and clause 67(u) of Schedule 2, Part 9 of the *Planning and Development (Local Planning Schemes) Regulations 2015*, as:
- i. the bulk and scale of the development is not compatible with its setting particularly the relationship of development to development on adjoining land.
  - ii. Inadequate provision made for the landscaping of the land to which the application relates.
  - iii. Inadequacy of the development to provide means of access by older people and people with disability.

**Details: outline of development application**

Zoning	MRS:	Urban
	TPS:	Residential R20/R60
Use Class:		Multiple Dwelling
Strategy Policy:		Local Housing Strategy
Development Scheme:		City of Joondalup <i>Local Planning Scheme No. 3</i>
Lot Size:		1423.92m <sup>2</sup> (combined)
Existing Land Use:		Single House

The proposed development consists of the following:

- 16 multiple dwellings across a three storey building consisting of three one-bedroom apartments, ten two-bedroom apartments and three three-bedroom apartments , serviced by a communal lift.
- A common vehicle access point from Brechin Court.
- A total of 31 on-site car parking bays, with 28 bays allocated to residents and three bays for visitors.
- Two pedestrian entries to the building, one facing the street and another from the carpark.
- Landscaping, including deep soil zones, in the street setback area, around the ground floor communal area, the building, the car parking area, the driveway and within upper floor balconies.
- Front fencing around the courtyards facing Brechin Court.
- Bin enclosure adjacent to ground floor apartments and carparking area.
- Associated site works and retaining walls.

## **Background:**

The applicant seeks planning approval for the development of a three storey 16 multiple dwelling development at Lots 104 and 105 (8 and 10) Brechin Court, Duncraig (subject site).

This application was received by the City in December 2019. Since lodgement the planning framework in relation to apartment development has changed with the introduction of *State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments* which become operational on 24 May 2019. The application has been assessed against this framework.

The site is currently occupied by single storey, detached single dwellings on each lot. The subject sites are located in a cul-de-sac and are bound by Brechin Court to the west and single dwellings to the north, east and south (Attachment 1 refers). The site is located an approximate walkable distance of 240 metres to the pedestrian bridge of Warwick train station.

The development site and surrounding properties are zoned 'Residential' under the City's *Local Planning Scheme No. 3 (LPS3)*, with a density coding of R20/R60 and are located within Housing Opportunity Area 1 (HOA). It is noted that newer development within the street is typically one and two storey grouped dwelling developments which appropriately complement the original housing stock. New development in surrounding streets comprises two storey grouped dwelling and two storey multiple dwelling development typically ranging in scale from two up to ten dwellings.

One of the properties adjoining the subject site's rear boundary, No. 25 Methuen Way, has recently received planning approval for a two storey grouped dwelling. At the time of preparing this Responsible Authority Report a building permit or demolition license has not been lodged. Whilst there is the intent of this property to develop at the higher coding by virtue of the recently obtained planning approval, as the site has not commenced construction and the existing dwelling still remains on site at the lower density code, the assessment by the City has been undertaken in the context of the lower density code.

A planning application was also recently determined for a three storey development comprising 13 multiple dwellings at No. 4 and No. 6 Brechin Court.

No. 6 Brechin Court adjoins the subject site's southern boundary. The proposal at No. 4 and No. 6 Brechin Court was refused by Council in May 2019. The applicant lodged a review with the State Administrative Tribunal; however, has subsequently withdrawn the application. At this point in time, it is considered that there is no longer an intent for the property to be developed at the higher coding and therefore the potential impact has been considered in the context of the lower density coding (R20).

## **Legislation and Policy:**

### Legislation

- *Planning and Development Act 2005.*

- *Metropolitan Region Scheme (MRS).*
- *Planning and Development (Local Planning Schemes) Regulations 2015 (Regulations).*
- *City of Joondalup Local Planning Scheme No. 3 (LPS3).*

#### State Government Policies

- *State Planning Policy 7.0: Design of the Built Environment (Design WA)*
- *State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments (SPP7.3).*

#### Local Policies

- *Residential Development Local Planning Policy (RDLPP).*
- *Environmentally Sustainable Design Policy.*

#### **Consultation:**

##### Public Consultation

The original proposal was advertised for 14 days, commencing on 20 March 2019 and concluding on 3 April 2019. Consultation was undertaken in the following manner:

- letters sent to all adjoining owners and occupiers;
- a sign installed across the frontages of 8 and 10 Brechin Court, Duncraig; and
- development plans made available for public viewing on the City's website and at the City's Administration Building.

A total of 67 submissions, being objections, and one petition containing 63 signatures were received.

A revised proposal, which is the subject of this report was advertised for 14 days, commencing on 20 June 2019 and concluding on 4 July 2019. Readvertising was undertaken in the following manner:

- letters sent to all adjoining owners and occupiers, and residents who provided a submission on the previous proposal; and
- development plans made available for public viewing on the City's website and at the City's Administration Building.

A total of 66 submissions, being objections, and one petition containing 429 signatures were received during the second round of advertising.

The applicant was provided the opportunity to address issues raised during consultation; however, elected not to provide a response.

The issues raised in the submissions during the second advertising period and the City's responses are summarised in the table below:

Issue Raised	Officer Response
Density and Zoning	

<p>We feel that current zoning is already well above what local residents understood and already object to, however the proposed development has asked for points of relaxation above even these.</p> <p>The argument that the locality is ideal for development because of the proximity of Warwick train station is flawed.</p> <p>Good planning for infill requires:</p> <ul style="list-style-type: none"> <li>• good transport</li> <li>• work opportunities</li> <li>• ready and close access to amenities such as <ul style="list-style-type: none"> <li>○ Education</li> <li>○ Health services</li> <li>○ Shopping</li> <li>○ Recreation</li> <li>○ Entertainment</li> </ul> </li> </ul> <p>Infill is required but it has to be appropriate without destroying the nature of the surrounds.</p>	<p>The City started developing its Local Housing Strategy (LHS) in 2010 by identifying suitable areas for medium density and identified ten areas suitable for higher density development (known as Housing Opportunity Areas (HOAs).</p> <p>The final LHS was endorsed by the Western Australian Planning Commission on 12 November 2013.</p> <p>Since early 2016, residents in HOAs have been able to redevelop their properties in line with the higher densities allocated to these areas. However, the City understands that some residents are concerned about the development outcomes occurring in these areas and called on the City to review how infill development is managed.</p> <p>Council responded to these concerns by endorsing the preparation of a new planning framework (amendment to the City's planning scheme and design-led local planning policy) for the City's HOAs that requires a higher quality of design and better manages the impact of development on existing residents and streetscapes.</p> <p>A draft new planning framework for infill development has been prepared but is yet to have any formal status that would allow it to be considered in decision-making for planning applications.</p>
<b>Building height</b>	
<p>The height does not fit within the character of the neighbourhood, which is predominantly single storey family homes.</p> <p>Development will adversely impact on the amenity of the adjoining properties and streetscape.</p> <p>There is no articulation to the roof design and the building will dominate the streetscape.</p>	<p>Building height of three storeys is permitted within the current framework for the density coding of R60.</p> <p>The proposal is in accordance with the acceptable outcomes and element objectives of 2.2 <i>Building height</i>.</p>
<b>Street setbacks and Public domain</b>	

The setbacks do not complement the existing character of the street, nor do they reinforce the proposed setbacks.	The proposed street setbacks are in accordance with the City's street setback requirements of <i>Residential Development Local Planning Policy</i> and element objectives of <i>2.3 Street setbacks</i> .
There is no effort to achieve visual privacy to the first floor apartments.	<i>3.6 Public domain</i> requires upper floor balconies to overlook the street to provide an attractive outlook and provide passive surveillance.
Retaining the site by 1m is not responding to the changes in topography.	The extent of fill and retaining to the street is in accordance with the acceptable outcomes and element objectives of <i>3.6 Public domain</i> .
<b>Side lot boundary setbacks</b>	
<p>Reduced lot boundary setbacks:</p> <ul style="list-style-type: none"> <li>• impact the availability of space for trees;</li> <li>• reduce privacy for neighbouring properties; and</li> <li>• do not provide transition between sites of different intensity.</li> </ul>	The proposal results in reduced visual privacy setbacks to the eastern and southern lot boundaries, which is inappropriate. Further details are provided under <i>Side and rear setbacks</i> and <i>Visual Privacy</i> in the officer's comments section below.
<b>Building size /Plot ratio</b>	
<p>The plot ratio:</p> <ul style="list-style-type: none"> <li>• of 0.92 is 14% over the permitted 0.8 plot ratio for the R60 coding;</li> <li>• does not keep within the context of the area (2 storeys);</li> <li>• 16 units, too much infill for a street of this size; and</li> <li>• increase in population within this cul-de-sac by approximately 68 people.</li> </ul> <p>The appearance of the development is not compatible with development on adjoining land and on other land in the locality from the perspective of height, bulk and scale.</p> <p>The cumulative impacts of the discretions sought in relation to neighbouring developments and plot ratio result in a development which is greater than what the site should accommodate.</p> <p>The developers "tweaking" the original development does not lessen the negative impact on the locality. It is still unacceptable and overdeveloped.</p> <p>As per 4-6 Brechin Court, the proposal is not consistent with Schedule 1 – Design Principles of State Planning Policy 7:</p>	<p>This site is dual coded R20/60. The plot ratio acceptable outcome under SPP7.3 is 0.8.</p> <p>The proposed plot ratio is 0.936, which is 17% over the acceptable outcome requirement.</p> <p>The proposed plot ratio does not achieve the element objective of <i>2.5 Plot ratio</i> and is therefore inappropriate.</p> <p>Further details are provided under <i>Plot ratio</i> in the officer's comments below.</p>

Design of the Built Environment as the massing and height of the development is not appropriate to its setting and does not successfully negotiate between existing built form and the intended future character of the local area.	
<b>Building depth</b>	
<p>The extended building depth does not optimise daylight and solar access. Of the 16 apartments only 4 have a north facing window adjoining a living space. And a further 8 have no north facing windows.</p> <p>There is no point having room depths and ceiling height to optimise daylight and solar access if only 4 have a north facing window adjoining a living space. And a further 8 have no north facing windows.</p> <p>Insufficient breeze flow</p>	<p>The development proposes a building depth of 26.6m whereas the acceptable outcome requires 20m and does not achieve the objectives of <i>2.6 Building depth</i> or <i>4.1 Solar and daylight access</i>.</p> <p>The development meets the acceptable outcomes and achieves the element objectives of <i>4.2 Natural ventilation</i>.</p> <p>Further details are provided under <i>Building depth</i> and <i>Solar and daylight access</i> in the officer's comments below.</p>
<b>Building separation</b>	
<p>Building separation is not in proportion to building height and yes it should be applicable.</p> <p>The building has insufficient separation to provide visual privacy, acoustic privacy, natural ventilation, sunlight or outlook. The outlook from Lot 103's outdoor entertaining area and pool is a 3 storey building sitting atop a 1m high retaining wall.</p>	<p>The proposed development does not meet the acceptable outcomes, satisfy the planning guidance or achieve the objectives of <i>2.7 Building separation</i> and is therefore inappropriate.</p> <p>Further details are provided under <i>Building separation</i> in the officer's comments below.</p>
<b>Overshadowing</b>	
<p>Overshadowing would impact the usable space on the adjacent property. It would decrease the natural light and reduce natural heating in winter, decrease the space available on rooftops for solar panels and solar heating and would decrease the quality of health from lack of direct sunlight.</p> <p>The neighbours adjacent would be heavily impacted due to the imposing nature which will force them out of their property.</p>	<p>The proposal results in undue overshadowing to the adjoining property to the south. Further details are provided under <i>Orientation</i> in the officer's comments below.</p>
<b>Existing landscape and provision of landscaping</b>	
<p>One of the wonderful things about our suburb is currently the mature vegetation but the reduction of open space would lead to a decrease in current vegetation with reduced space for replanting.</p> <p>A decrease in the existing vegetation and</p>	<p>The proposal does not provide sufficient tree canopy spread across the site.</p> <p>Further details are provided under <i>Tree canopy</i> in the officer's comments below.</p>

reduced open space would lead to very strong concerns regarding environmental issues such as heat levels, wildlife habitat and movement as well as visual landscape concerns.	
Existing trees onsite (Cocus Palms ( <i>Cocus Plumosa</i> ) and other trees onsite) should be retained given the age and height.	The existing trees onsite are not required to be retained under SPP7.3.
Verge tree to be retained.	The removal of a verge tree is subject to an Amenity Value assessment. If the City determines that the tree is suitable for removal, removal is required to be undertaken by the City, and it is subject to payment from the applicant for costs relating to removal, amenity value of the tree and cost of a new tree.
<b>Visual privacy</b>	
A reduced privacy setback is simply unacceptable. This would impact the quality of life of adjacent neighbouring residents and will lead to an increase in people feeling forced to leave their area as has already happened with other large developments in the area.	The proposal results in visual privacy impacts to the private outdoor spaces of No. 25 Methuen Way and No. 6 Brechin Court. Further details are provided under <i>Visual Privacy</i> in the officer's comments below.
<b>Parking</b>	
The application proposes the provision of three (3) visitor car parking bays in lieu of four (4) stipulated in the SPP 7.3 Vol 2 and offers none of the eight (8) additional visitor parking bays required to be placed outside of the security barrier in accordance with Schedule No.1 of the City's 'Residential Development Local Planning Policy'. This is a significant shortfall in a street where on street parking is not a practical option.	<p>The development proposes a visitor car parking shortfall of one bay. It is noted that the City's <i>Residential Development Local Planning Policy</i> visitor parking requirements do not apply under SPP 7.3.</p> <p>Any unauthorised parking within the road reserve is governed by the <i>City of Joondalup Parking Local Law 2014</i>.</p> <p>Further details are provided under <i>Car parking and bicycle parking</i> in the officer's comments section below.</p>
Bicycle parking is located behind security gate.	SPP 7.3 3.9 <i>Carparking and bicycle parking</i> does not require bicycle parking bays to be in front of a security gate.
<b>Noise and waste</b>	
Height and scale of development raises concerns with noise.	<p>The development satisfies the relative design guidance and achieves the element objectives of <i>4.7 Managing the impact of noise</i>.</p> <p>The management of noise and impacts to adjoining properties is to be in accordance with the <i>Environmental Protection Act 1986</i> and the <i>Environmental Protection (Noise)</i></p>



	<i>Regulations 1997.</i>
<p>We wonder how the current proposal plans to have the bins on the street. At a minimum they would require 9 x 240L general rubbish bins and 3 x 360L recycling bins. Based on bin measurements, these bins without spacing will stretch across 7.3m of the pavement.</p> <p>Whilst having 12 bins on the sidewalk would make a huge impact and danger to pedestrian safety as well as impact on parking, there is also the addition of the third 140L bin in the City of Joondalup.</p>	<p>The development proposes 7 x 660L bins for general waste and recycling.</p> <p>The space proposed for waste pick up is adjacent to the proposed driveway to the site.</p> <p>The City is generally satisfied with the management of waste and there is scope for the development to meet <i>4.17 Waste management</i> acceptable outcomes and element objectives through a condition of planning approval.</p>
<b>Road network and pedestrian safety</b>	
<p>The development will result in traffic congestion.</p> <p>The increased number of residents moving to the area increases the local traffic and pedestrian safety concerns.</p>	<p>If the development was approved and constructed, there will be increased traffic within Brechin Court and the surrounding streets, however the existing road network has the capacity to accommodate the additional traffic volumes.</p> <p>The City has reviewed the Traffic Impact report and is satisfied with the findings.</p>
<b>Building compliance</b>	
<p>Insufficient fire exits.</p> <p>Flat roofs are prone to leakage.</p>	<p>The building is required to meet the relevant requirements of the National Construction Code (NCC).</p>
<b>Property market</b>	
<p>The building will impact on land value in the area.</p>	<p>The impact of a development on adjoining property value is not a consideration that could reasonably be considered in determining the planning merits of an application.</p>
<b>Demographic</b>	
<p>New residential demographic and anti-social behavior.</p> <p>We are concerned that a development of this nature would attract rental residents who may be more transient and not invested in becoming part of the community.</p>	<p>There is no substantiated evidence to suggest that the proposed development will have a direct correlation to antisocial behaviour or crime increase.</p> <p>Concerns and issues in relation to future occupants of the dwellings are not valid planning considerations.</p>
<b>Community</b>	
<p>Duncraig is currently a residential community with a genuinely close community. It has a village feel and there is always someone to wave to as you are going down the street.</p>	<p>It is unclear what aspect of the proposal this comment is objecting to.</p>
<b>Precedent</b>	

Supporting a proposal with such reductions in the requirements will set a precedent for future developments.	Each application is assessed on its individual merits against the relevant planning framework.
--	--

### Joondalup Design Reference Panel (JDRP)

The original proposal was considered at JDRP meeting held on 30 January 2019 prior to the date SPP 7.3 become operational. Noting this, the comments were made in the context of previous planning framework, *State Planning Policy 3.1 Residential Design Codes*.

The applicant was provided a number of opportunities to respond to the JDRP comments; however, elected not to. The revisions made to the proposal since the JDRP review are not considered to sufficiently address the comments by the Panel.

The following table summarises comments made by the Panel at its meeting:

<b>JDRP comments</b>
There is a clear overdevelopment on this site. It was noted that it is possible with this site and context to achieve a good outcome within the plot ratio, height, setbacks and car parking (with no surplus/shortfall) deemed-to-comply provisions and only minor discretions.
With this development providing reduced landscaping, no communal open space and a larger built form, future occupants, neighbours and streetscape will be at a loss.
It is evident that there is a need to scale back the building, reduce car parking and increase landscaping.
With regards to landscaping, there is not a great deal on site. Landscaping is only filling in the edges. It would be good to see more trees throughout the site. Whilst noting the proposed canopy, more trees are still recommended.
Planting beds are very narrow, root zone structures will help but getting trees in will be a struggle.
There is a lack of communal space in this development.
This development really needs to reduce the provision of car parking, particularly considering that the site is located close to Warwick train station. The flow on impacts result in reduction in the ability to provide adequate landscaping.
The external aesthetic is acceptable. However, the overall quality and amenity of the units was questioned.
The central bedrooms with a small WIR (2 <sup>nd</sup> bedrooms to the west on first and second floor) have limited light.
The units to the rear with an outlook to the freeway, which is not ideal.
Stores located internal to the building is a better outcome than it be added to a balcony.
The cross ventilation diagrams are incorrect.
Overshadowing, how does this work with the adjoining property? Recommended to work in collaboration with the (then) developer of the adjoining site.
The roof design is good. The air-conditioning units can be better located. It was

recommended to group them rather than have them separate.
The parking bays are quite tight (2.4m), and there is a parking surplus.
The rubbish disposal area is isolated.
During the transition period (existing lower density to the high density), there needs to be a more meaningful design, considering the context, noting that the site is within close proximity to the train station (with a surplus in car parking). This will impact the overall built outcome of the building, and if others follow in pursuit, the entire area will have a different built form than that expected of an R60 density area, which may contravene the overall vision and future intent of this area.

### **Planning Assessment:**

The City has completed an assessment of the proposal against the relevant provisions of the Regulations, LPS3, SPP7, SPP7.3, and the City's RDLPP.

A summary of the City's assessment against SPP7.3 is included in Attachment 12.

The officer comments section refers to its assessment against LPS3 as well as elements that do not achieve the element objectives of SPP7.3.

### **Officer Comments**

#### Local Planning Scheme No. 3

##### *Minimum lot frontage requirement:*

Clause 26 (5) of LPS3 requires multiple dwelling sites to have a minimum site width of 20 metres at the street boundary.

The application proposes development across No. 8 and No. 10 Brechin Court which have an aggregate site width of 37 metres at the street boundary, and therefore meets this scheme requirement.

##### *Land use:*

The subject site is zoned 'Residential' under LPS3 with a residential density coding of R20/R60. The land use of 'Multiple Dwelling' is a discretionary or 'D' land use in the Residential zone.

The discretionary land use permissibility for multiple dwellings applies to every lot in the entire Residential zone, across all suburbs of the City. Multiple dwellings are not appropriate to be built on every residential lot in the City and that is why the land use permissibility in the City's scheme requires the exercise of discretion in deciding which lots are appropriate for multiple dwelling development and which are not. The City, as part of Amendment No. 73 to District Planning Scheme No. 2, recoded certain properties, including the subject site, to allow for the provision of higher density development in certain areas. It was through this action that the City exercised its discretion and decided that multiple dwellings were considered acceptable on certain lots by virtue of the higher density code allocated to them.

One of the objectives of the Residential zone is to provide for a range of housing and a choice of residential densities to meet the needs of the community, which the proposed development, and the Housing Opportunity Areas more broadly, does in a Local Government area that is characterised primarily by detached, single houses.

#### State Planning Policy 7.3 (Residential Design Codes Volume 2 – Apartments)

##### Side and rear setbacks

Element 2.4 Side and rear setbacks objectives state:

*O 2.4.1 Building boundary setbacks provide for adequate separation between neighbouring properties.*

*O 2.4.2 Building boundary setbacks are consistent with the existing streetscape pattern or the desired streetscape character.*

*O 2.4.3 The setback of development from side and rear boundaries enables retention of existing trees and provision of deep soil areas that reinforce the landscape character of the area, support tree canopy and assist with stormwater management.*

*O 2.4.4 The setback of development from side and rear boundaries provides a transition between sites with different land uses or intensity of development.*

Acceptable Outcomes:

The acceptable outcomes require:

- the development to comply with the side and rear setbacks set out in Table 2.1, except where modified by the local planning framework and/or a greater setback is required to address 3.5 Visual Privacy (A2.4.1); and
- development be setback to achieve element 2.7 *Building Separation*, 3.3 *Tree Canopy*, 3.5 *Visual Privacy* and 4.1 *Solar and daylight access Objectives* (A2.4.2).

The development satisfies the side and rear setbacks set out in Table 2.1 however does not achieve the greater setback as required to address 3.5 *Visual Privacy*. The development does not satisfy 2.7 *Building separation*, 3.3 *Tree Canopy and deep soil areas*, 3.5 *Visual privacy* or 4.1 *Solar and daylight access Objectives* either.

Planning Guidance:

When considering the proposal against the applicable planning guidance, the development results in undue overshadowing to the adjoining property's main outdoor living area to the south and will detrimentally impact on the amenity of this property (PG2.4.1). The proposal also results in undue visual privacy impacts to No. 6 Brechin Court and No 25 Methuen Way (PG2.4.2). The impacts of overshadowing and visual privacy are discussed further under 3.2 *Orientation* and 3.5 *Visual privacy* respectively.

The building has not been appropriately set back from the southern boundary to reduce overshadowing and visual privacy impacts, or from the eastern boundary to reduce visual privacy impacts.

## Element Objectives:

When considering the proposal against the element objectives, the proposal does not provide adequate separation between neighbouring properties as it results in detrimental impacts to neighbouring properties' visual privacy and access to direct daylight (O2.4.1). The surrounding residential area is coded R20/R60 and in the instance adjoining properties are developed at the lower coding, the lower coding is to be used for the basis for assessment, including visual privacy setbacks and permissible percentage of overshadowing, to protect the amenity of the existing residents living at the lower density. The development therefore does not provide an adequate transition between sites with a different intensity of development (O2.4.4).

In summary, the development does not achieve element objectives 2.4.1 and 2.4.4.

## Plot ratio

Element 2.5 Plot ratio objective states:

*O 2.5.1 The overall bulk and scale of development is appropriate for the existing or planned character of the area.*

## Acceptable Outcomes:

The acceptable outcome sets a plot ratio requirement of 0.8 (1,139m<sup>2</sup>) for an R60 coded site (A2.5.1), whereas 0.936 (1,332.8m<sup>2</sup>) is proposed.

## Planning Guidance:

The applicant has provided context plans as part of their submission to demonstrate how the proposal sits in context with existing development and possible future development (Attachment 4 refers).

Planning guidance suggests testing the desired built form outcome against the plot ratio to ensure it is coordinated with the building envelope, height, depth, setbacks and other site requirements (P.G2.5.1).

The proposed development does not satisfy Objectives of 2.4 *Side setbacks*, 2.6 *Building depth*, 2.7 *Building separation*, 3.2 *Orientation*, 3.3 *Tree canopy and deep soil areas*, 3.5 *Visual privacy*, 4.1 *Solar and daylight access* or 4.12 *Landscape design*. This indicates that the proposal does not fit comfortably within the building envelope, the massing of the building is not suitable, and the proposal represents overdevelopment of the site.

It is further noted that the original proposal reviewed by the JDRP proposed a plot ratio of 0.956. The Panel observed that this was a clear overdevelopment of the site. The Panel further observed that given the site and its context it is possible to achieve a good outcome within the plot ratio, height, setbacks and carparking (with no surplus or shortfall) requirements.

The Panel also commented that the loss with this development is to the occupants, neighbours and streetscape and that there needs to be more meaningful design with the context, particularly during a transition period.

Although the Panel's comments were made in the context of the previous planning framework, the City considers the comments valid and the revised proposal the subject of this report is not considered to have adequately responded to the Panel's comment and recommendations.

#### Element Objectives:

When considering this proposal against the element objective, for the reasons stated above, the overall bulk and scale of the development is not appropriate for the existing and planned character of the street. As such the development does not achieve element objective 2.5.1.

#### Building depth

Element 2.6 Building depth objective states:

*O 2.6.1 Building depth supports apartment layouts that optimise daylight and solar access and natural ventilation.*

*O 2.6.2 Articulation of building form to allow adequate access to daylight and natural ventilation where greater building depths are proposed.*

*O 2.6.3 Room depths and/or ceiling heights optimise daylight and solar access and natural ventilation.*

#### Acceptable Outcomes:

The acceptable outcomes require developments which comprise single aspect apartments on each side of a central circulation corridor, to have a maximum building depth of 20 metres, and the remaining development is to be considered on its merits with particular consideration to *4.1 Solar and daylight access* and *4.2 Natural ventilation*.

The portion of the development that comprises single aspect apartments on each side of a central circulation corridor has a building depth of 26.6 metres. The building depth is measured across the horizontal distance across the building, including external walls, balconies and external circulation corridors, in accordance with the building depth definition of SPP7.3. The remaining portion of the development has been assessed on its merits and does not achieve Objectives of *4.1 Solar and daylight access*.

#### Planning Guidance:

The planning guidance generally refers to testing of the building to achieve sufficient natural ventilation and daylight, good levels of amenity and orientation. Whilst natural ventilation is considered sufficient, the orientation of the building does not adequately achieve direct sunlight access to Unit 2, Unit 8, Unit 9, Unit 15 and Unit 16 living rooms and does not achieve the Objectives of *4.1 Solar and daylight access*.

#### Element Objectives:

Considering the above, the proposal is not in accordance with the objectives as building depth does not optimise daylight and solar access and the building is not appropriately articulated to allow for adequate access to daylight.

The applicant has not sufficiently demonstrated through either the acceptable outcomes or the planning guidance, that the element objectives have been achieved and the building depth is therefore not acceptable.

### Building separation

Element 2.7 Building separation objective states:

*O 2.7.1 New development supports the desired future streetscape character with spaces between buildings.*

*O 2.7.2 Building separation is in proportion to building height.*

*O 2.7.3 Buildings are separated sufficiently to provide for residential amenity including visual and acoustic privacy, natural ventilation, sunlight and daylight access and outlook.*

*O 2.7.4 Suitable areas are provided for communal and private open space, deep soil areas and landscaping between buildings.*

Acceptable Outcomes:

The acceptable outcome requires development to comply with the separation requirements set out in Table 2.7. As the development is three storeys, the development is required to be set back to adjoining properties in accordance with 2.4 *Side and rear setbacks* (Table 2.1) and 3.5 *Visual privacy* (Table 3.5).

The development does not achieve the Objectives of 2.4 *Side and rear setbacks* or Objectives of 3.5 *Visual privacy* and is therefore not in accordance with the acceptable outcomes of 2.7.1 *Building separation*.

Planning Guidance:

The planning guidance suggests testing the building separation in plan and section. The applicant has provided these as part of the context plans in Attachment 4. It also suggests testing building separation controls to ensure it promotes solar and daylight access to buildings and open space, and to increase building separation proportionally to the building height to achieve amenity and privacy for building occupants. When considering the site's location and building separation to the adjoining property to the south, the development results in undue overshadowing to the outdoor living area and will unduly impact the amenity for the occupants of this site (3.2 *Orientation* refers). The development also results in visual privacy impacts to No. 6 Brechin Court and No. 25 Methuen (3.5 *Visual privacy* refers).

Element Objectives:

When considering this proposal against the element objectives, the proposed building is not separated sufficiently to provide for residential amenity to existing neighbouring properties, including visual privacy and sunlight and daylight access.

### Orientation

Element 3.2 Orientation objective states:

*O 3.2.1 Building layouts respond to the streetscape, topography and site attributes while optimising solar and daylight access within the development.*

*O 3.2.2 Building form and orientation minimises overshadowing of the habitable rooms, open space and solar collectors of neighbouring properties during mid-winter.*

#### Acceptable Outcomes:

The acceptable outcomes require:

- the building to be oriented to the street and incorporate direct access from the street;
- for shadow cast at midday on 21st June not to exceed 25% of the adjoining property; and
- to protect solar panels.

The building is oriented to the street, gains direct access from the street and the adjoining property does not contain solar panels. However, the proposed building overshadows 40.1% of the adjoining property. The adjoining property is dual coded R20/60 and is currently developed at the R20 coding.

The applicant has provided an overshadowing diagram (Attachment 5 refers). It is noted that the applicant's overshadowing calculation is based on the R60 coding and the total area of both No. 6 and No. 4 Brechin Court.

#### Design Guidance:

The design guidance states that the impact of development on solar access to properties located to the south must be considered and, in considering overshadowing of neighbouring properties, priority should be given to achieving acceptable solar access to habitable rooms, outdoor living spaces and solar collectors. Whilst it is noted the property to the south does not contain solar collectors, when breaking down the extent of overshadowing and considering the impacts to the adjoining property, at midday on 21<sup>st</sup> June approximately 55% of the neighbouring outdoor living space including the covered patio and swimming pool will be overshadowed and approximately 42% of the uncovered outdoor living area will be overshadowed.

#### Element Objectives:

Considering the above, the development is not in accordance with Objective 3.2.2 as its form and orientation results in detrimental amenity impacts and undue overshadowing of the neighbouring property's open space.

#### Tree canopy and deep soil areas

Element 3.3 Tree canopy and deep soil areas objectives state:

*O 3.3.1 Site planning maximises retention of existing healthy and appropriate and protects the viability of adjoining trees.*



*O 3.3.2 Adequate measures are taken to improve tree canopy (long term) or to offset reduction of tree canopy from pre-development condition.*

*O 3.3.3 Development includes deep soil areas, or other infrastructure to support planting on structures, with sufficient area and volume to sustain healthy plant and tree growth.*

#### Acceptable Outcomes:

The acceptable outcomes require:

- the retention of trees;
- minimise canopy loss;
- provision of 142.4m<sup>2</sup> deep soil area;
- provision of one large tree and one medium tree; and
- permeable surfaces to not exceed 20% of the site's deep soil area or inhibit the planting or growth of trees.

The proposal does not result in the loss of significant trees, will not result in undue canopy loss of adjoining trees and provides adequate deep soil area. The proposal however does not provide the required trees with shade producing canopies. The proposal provides 1 medium tree and 3 small trees across the site.

The development proposes a *Persea Americana* to the north east corner of the site and, whilst the deep soil area and rootable zone are in accordance with table 3.3b, the total height at maturity is 20 metres with a canopy spread of 9 metres. It is noted that the deep soil area and rootable zone size is capable of accommodating a large tree, however the canopy spread is considered to be a medium tree as set out in table 3.3b.

Three *Cupaniopsis Anacardioides* 'Tuckeroo' are proposed along the northern side boundary. This tree at maturity is capable of growing between 8 – 10 metres high with a canopy spread of 3 – 4 metres. It is noted that the deep soil area provided to these trees are able to accommodate medium trees, however this proposed tree is considered a small tree in accordance with table 3.3b.

Landscaping plans are provided in Attachment 6.

#### Design Guidance:

Design guidance suggests the design should maximise the tree canopy and the effectiveness of deep soil area. Deep soil areas are adequate, however when considering the total area of shade producing canopy of 1 large tree and 1 medium tree, compared to the total area of shade producing canopy of the medium tree and three small trees proposed, there is still a shortfall in canopy provided onsite. The total area of shade producing canopy of 1 large tree and 1 medium tree totals approximately 116m<sup>2</sup> and the total area of the proposed shade producing canopy of the proposed trees totals 102m<sup>2</sup> with only approximately 72m<sup>2</sup> canopy spread onsite. This therefore results in a shortfall of shade producing canopy onsite of approximately 44m<sup>2</sup>.

It is noted that 1 *Lagerstroemia indica* x *L.fauriei* 'Tuscarora' and 3 *Prunus cerasifera* 'Crimson Spire' are proposed across the site, however have not been included in the canopy diameter calculation as the shade producing canopy spread does not fall

within the tree sizes specified in table 3.3b. If these species were included in the calculation, the total area of the canopy would amount to approximately 28m<sup>2</sup> which is still insufficient.

#### Element Objectives:

When considering the proposal against the element objectives, due to the shortfall in shade producing canopy spread, the proposal does not improve tree canopy in the long term (O3.3.2) and is not acceptable.

#### Communal open space

Element 3.4 Communal open space objectives state:

*O 3.4.1 Provision of quality communal open space that enhances resident amenity and provides opportunities for landscaping, tree retention and deep soil areas.*

*O 3.4.2 Communal open space is safe, universally accessible and provides a high level of amenity for residents.*

*O 3.4.3 Communal open space is designed and oriented to minimise impacts on the habitable rooms and private open space within the site and of neighbouring properties.*

#### Acceptable Outcomes:

The acceptable outcomes require:

- a communal open space area to be between 96m<sup>2</sup> and 300m<sup>2</sup> with a hardscape area between 32m<sup>2</sup> to 100m<sup>2</sup>;
- have an open space dimension of 4 metres;
- be accessible;
- have a minimum of 50% of the area with access to direct sunlight; be co-located with deep soil areas and/or planting structures and/or indoor communal spaces;
- be separated or screened from adverse amenity impacts; and
- be well-lit and designed and oriented to minimise amenity impacts.

The proposed communal open space generally meets the acceptable outcomes, with the exception of screening. The location of the communal open space is adjacent to the carparking area. It is possible that adverse amenity impacts relating to vehicle lights and noise when vehicles are turning and/or accessing the car parking bays adjacent to the open space could result.

#### Design Guidance:

The design guidance comments that the siting of a communal open space area influences its amenity value and requires consideration be given to solar access, wind effects, noise and odours.

The applicant has not sufficiently demonstrated that the proposal satisfies the design guidance and the City is of the view that the proposed location of the communal open

space adjacent to the carpark is not ideal as the area will be impacted by vehicle lights and noise and will result in a low amenity value for future residents.

#### Element Objectives:

When considering the element objective, the siting of the communal open space does not provide a high level of amenity for residents.

It is considered that effective screening would improve the amenity of this space for future occupants and in the event this application was to be approved, a condition of approval requiring the inclusion of screening between the communal open space and carpark would be recommended.

#### Visual privacy

Element 3.5 Visual Privacy objective states:

*O 3.5.1 The orientation and design of buildings, windows and balconies minimises direct overlooking of habitable rooms and private outdoor living areas within the site and of neighbouring properties, while maintaining daylight and solar access, ventilation and the external outlook of habitable rooms.*

#### Acceptable Outcomes and Design Guidance:

The acceptable outcomes require:

- visual privacy setbacks to side and rear boundaries to be 4.5 metres for bedrooms and 7.5 metres for balconies (adjoining sites developed at the R20 density);
- balconies to be unscreened for at least 25%;
- living rooms to have an external outlook from at least one major opening that is not obscured; and
- windows and balconies to be located to restrict overlooking without reliance on high sills or permanent screening.

It is noted that the cone of vision diagrams detailed on the development plans are not accurate and the City has undertaken a separate cone of vision assessment.

#### *Northern lot boundary*

The proposed setbacks to the northern lot boundary result in reduced privacy setbacks of 6.7 metres to Unit 3 and Unit 10 balconies and 7.2 metres to Unit 4 and Unit 11 balconies.

When considering the proposal against the design guidance and element objectives, the cone of vision falls onto a roof space and landscaping strip and does not directly overlook habitable rooms or the private outdoor living area of the adjoining dwelling and is therefore considered acceptable.

#### *Eastern lot boundary*

The proposed setbacks to the eastern lot boundary result in reduced privacy setbacks of 6 metres to Unit 5, Unit 6, Unit 12 and Unit 13 balconies; and 3 metres to Unit 4 and Unit 11 bed 1 and bed 2.

When considering the proposal against the design guidance and element objectives, the cone of vision from the balconies and bed 1 falls onto a garden shed and a pedestrian walkway and does not result in direct overlooking into habitable rooms or private outdoor living areas of the adjoining dwellings and is therefore considered acceptable.

However, when considering the reduced cone of vision setback of bed 2 to Unit 4 and Unit 11, this cone of vision falls directly onto No. 25 Methuen Way's private outdoor living area and will result in amenity impacts to the occupants of this property.

#### *Southern lot boundary*

The proposed setbacks to the southern lot boundary result in reduced privacy setbacks of 3 metres to Unit 6 and Unit 13 bed 1 and bed 2, and Unit 9 and Unit 16 bed 1.

When considering the proposal against the design guidance, the reduced cone of vision setback from bed 1 Unit 9 and Unit 16 falls onto the adjoining property's carport roof and does not result in direct overlooking into habitable rooms or private outdoor living areas of the adjoining dwellings and is acceptable. However, when considering the reduced visual privacy setbacks to bed 1 and bed 2 of Unit 6 and Unit 13, the cone of vision falls directly onto No. 6 Brechin Court outdoor living space and will result in detrimental impacts to the occupants' privacy.

#### Element Objectives:

The development does not achieve the element objective as the orientation and design of the building and windows do not minimise direct overlooking of private outdoor living areas of adjoining properties.

#### Public domain interface

Element 3.6 Public domain interface objectives state:

*O 3.6.1 The transition between the private and public domain enhances the privacy and safety of residents.*

*O 3.6.2 Street facing development and landscape design retains and enhances the amenity and safety of the adjoining public domain, including the provision of shade.*

#### Acceptable Outcomes:

The acceptable outcomes require:

- ground floor dwellings fronting onto the street or public open space to have direct access via a private terrace, balcony or a court yard;
- car-parking not located within the street setback area and integrated with landscaping and the building façade;

- upper level balconies and/or windows to overlook the street and public domain;
- balustrading that provides residents with privacy while maintaining casual surveillance;
- level changes between private terraces, front gardens and building and the street level average 1m and not exceed 1.2m;
- front fencing to be visually permeable above 1.2m;
- bins not located within the primary street setback or visible from the primary street; and
- services and utilities located within the street setback area to be integrated into the design and not detract from the amenity or visual appearance of the dwelling.

The proposed development generally satisfies the acceptable outcomes with the exception of car parking. Two visitor car parking bays are located within the street setback area.

#### Design Guidance:

When considering the location of these bays against the design guidance, it appears that there are not specific statements that relate to carparking being located within the street setback area. However, when considering the intent of this element, the space between buildings and the public domain is particularly important for ensuring a successful transition that contributes to the quality and character of the street.

It is acknowledged that a landscaping strip is provided between the visitor parking bays and the street boundary, however this is not of a sufficient width to screen the bays from the street or habitable spaces to Unit 2, 3.9 *Car and bicycle parking* and 4.1 *Landscape design* refers.

#### Element Objectives:

The location of the visitor bays does not achieve element objective 3.6.2 as it does not enhance the visual amenity for residents or the adjoining public realm.

#### Car and bicycle parking

Element 3.9 Car and bicycle parking objectives state:

*O 3.9.1 Parking and facilities are provided for cyclists and other modes of transport.*

*O 3.9.2 Carparking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres.*

*O 3.9.3 Car parking is designed to be safe and accessible.*

*O 3.9.4 The design and location of car parking minimises negative visual and environmental impacts on amenity and the streetscape.*

#### Acceptable Outcomes:

The acceptable outcomes require:

- nine secure, undercover and accessible bicycle parking;
- 16 resident car-parking bays and four visitor car-parking bays; parking provision to not exceed double the minimum number of bays (40 bays);
- car parking and vehicle circulation areas to be in accordance with AS2890.1;
- car-parking areas not to be located within street setback areas and not visually prominent from the street;
- car parking designed, landscaped or screened to mitigate visual impacts when viewed from the dwellings and private outdoor spaces;
- visitor parking to be clearly visible from the driveway, signed and accessible; parking structures to integrate with and complement the overall building design and site aesthetics;
- uncovered parking at-grade parking to be planted with trees; and
- basement parking not to protrude more than 1m above ground.

The proposal provides 3 visitor parking bays (one less than required) and two visitor parking bays located within the street setback area, which will be visually prominent from the street. Further, the location of visitor parking bay 1 is not designed, landscaped or screened to mitigate visual impacts when viewed from Unit 2's private outdoor space and bedroom 1.

#### Design Guidance:

Design guidance suggests that at-grade car parks should be safe, comfortable and landscaped environments. A design solution includes incorporating parking into the landscape design of the site by extending planting and materials into the carpark spaces (DG3.9.12).

The proposed design incorporates a 400mm landscaping strip and a visually permeable fence between the visitor parking bay and the front boundary and a solid fence to 1.2 metres and visually permeable above, between the visitor parking bays and Unit 2. The 400mm landscaping strip is insufficient in width to provide adequate landscaping to reduce the visual prominence of the visitor parking bays to the street (*4.12 Landscape design* refers), and do not enhance the public realm (*3.6 Public domain* refers). The fence between the visitor parking bays and Unit 2 is not sufficient to wholly screen the bays from the private outdoor space or bedroom 1 and will result in negative amenity impacts to future residents.

As there is a 12 bay surplus of resident bays, there is scope for the car parking bays within the street setback area to be removed, replaced with landscaping, and visitor parking to be reallocated within the site. Increasing the amount of landscaping and open space will not only improve the visual amenity to residents and to the street, it could also increase canopy cover which is currently deficient.

The JDRP commented on the provision of car parking and noted that an over provision of parking, particularly given the site's proximity to the Warwick train station, has the potential to adversely impact the overall built outcome of the building. The JDRP further commented that if the same approach was then repeated, the entire area will have a different built form than that expected of an R60 density area and may contravene the future intent of the area.

There appears not to be reasonable justification within the design guidance for the reduction in visitor car parking bays and location of the bays being within the front setback area, given the oversupply of resident car parking.

#### Element Objectives:

When considering the proposal against the element objectives, the proposal does not satisfy objective O3.9.4 as the location and provision of visitor parking results in detrimental visual impacts on the amenity for residents on site and on the streetscape.

#### Solar and daylight access

Element 4.1 Solar and daylight access objectives state:

*O 4.1.1 In climate zones 4, 5 and 6: the development is sited and designed to optimise the number of dwellings receiving winter sunlight to private open space and via windows to habitable rooms.*

*O 4.1.2 Windows are designed and positioned to optimise daylight access for habitable rooms.*

*O 4.1.3 The development incorporates shading and glare control to minimise heat gain and glare:*

- *from mid-spring to autumn in climate zones 4, 5 and 6 AND*
- *year-round in climate zones 1 and 3.*

#### Acceptable Outcomes:

The acceptable outcomes require:

- the maximisation of dwellings with a northern aspect, with a minimum of 70% of dwellings having living rooms and private open space obtaining at least 2 hours direct sunlight between 9am and 3pm on 21 June, and a maximum 15% of dwellings receiving no direct sunlight between 9am and 3pm on 21 June;
- every habitable room has at least one window in an external wall, visible from all parts of the room, with a glazed area not less than 10% of the floor area and comprising a minimum 50% clear glazing;
- lightwells and/or skylights do not form the primary source of daylight to any habitable room; and
- the building is orientated and incorporates external shading devices to minimise direct sunlight to habitable rooms between late September and early March, and permit winter sun in accordance with A4.1.1.

The proposal provides adequately sized windows to habitable rooms; lightwells and skylights are not the primary source of daylight to habitable rooms, and the building incorporates shading devices.

The applicant has provided solar access diagrams and cross-sections in Attachment 7. It is noted that a tabulation of the number of hours of solar access to units within the proposal was not provided to the City.

From the information provided, the City determined that all dwellings receive at least 2 hours of sunlight to private open spaces during 9am and 3pm on 21 June. However only 50% of dwellings (Unit 3, Unit 4, Unit 5, Unit 6, Unit 10, Unit 11, Unit 12, Unit 13) receive at least 2 hours of direct sunlight to the living rooms. The other 50% of dwellings (Unit 1 and Unit 2, Unit 7, Unit 8, Unit 9, Unit 14, Unit 15, Unit 16) orientate living rooms in a south-west direction and receive minimal direct sunlight. The City was not able to conclude the number of hours these rooms receive direct sunlight, based on the information provided from the applicant.

#### Design Guidance:

When considering the proposal against the design guidance, south facing dwellings receiving no direct sunlight should be minimised.

The proposal orientates dwellings' living spaces and private opening spaces in south-westerly, north-easterly and north-westerly directions. Solely south facing dwellings have been minimised.

The design guidance also states that providing direct sunlight to dwellings could be optimised through dual aspect apartments, shallow layouts, two storey and mezzanine level apartments and bay windows. The development has a shallow living space of 7.34m including the kitchen to Unit 2, Unit 8 and Unit 15. However, the remaining units propose living spaces which include kitchens, with a depth of between 8.05m to 9.33m. Unit 1, Unit 2, Unit 7, Unit 9, Unit 14 and Unit 16 are dual aspect, however only Unit 1, Unit 7 and Unit 14 have bedrooms orientated in a northerly direction, allowing direct sunlight. Unit 9 and Unit 16 are also dual aspect but have bedrooms orientated to the south-east direction with minimal to no direct sunlight access.

The design guidance also suggests high ceilings and tall windows, deciduous trees and shrubs, windows to habitable rooms with direct access to the sky rather than being deep within the façade with overhangs above. The proposed development provides standard floor to ceiling heights of 2.743m and the elevation in question (south-west) incorporates tall windows to habitable rooms. However, the sliding doors to the living spaces of Unit 2, Unit 8, Unit 9, Unit 15 and Unit 16 are set deep within the façade and do not have access to the sky. Some sunlight may access bedrooms 1 to these units, however the amount of sunlight access and whether the sunlight access is direct is unclear based on the information provided.

#### Element Objectives:

In view of the above, and based on the information provided, when considering the provision of solar access to Unit 2, Unit 8, Unit 9, Unit 15 and Unit 16 against the element objectives, the development is not sited or designed to optimise the number of dwellings receiving winter sunlight and the windows are not designed or positioned to optimise daylight access to habitable rooms.

#### Size and layout of dwellings

Element 4.3 Size and layout of dwellings objectives state:

*O 4.3.1 The internal size and layout of dwellings is functional with the ability to flexibly accommodate furniture settings and personal goods, appropriate to the expected household size.*



*O 4.3.2 Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good natural ventilation and daylight access.*

Acceptable Outcomes:

The acceptable outcomes require:

- dwellings to have minimum floor areas in accordance with Table 4.3a;
- habitable rooms to have minimum floor areas and dimensions in accordance with Table 4.3b;
- minimum floor to ceiling heights of 2.7m to habitable rooms and 2.4m to non-habitable rooms; and
- open plan living areas to have a maximum length of 8.229m without a kitchen or 9m with a kitchen.

The proposal generally satisfies the dwelling and habitable room minimum floor area requirements and ceiling height requirements. However, Unit 9 and Unit 16 do not satisfy the maximum open plan living area requirements where 9.33m is proposed in lieu of a maximum length of 9m.

Design Guidance:

When considering the open plan living areas of Unit 9 and Unit 16 against the design guidance, the overall size of the living spaces can accommodate the diverse and changing needs of occupants. However, when considering the efficiency of the living space, bedrooms 1 open directly out onto the living area compromising privacy of these spaces.

When considering the size, proportion and access to daylight of the living areas to Unit 9 and Unit 16, the width of the living room meets the minimum acceptable outcome of 4m and the ceiling heights meet the minimum acceptable outcome of 2.7m to habitable rooms. However, the opening to the living space is orientated to the south-west and is recessed under roof cover restricting access to daylight. These units receive insufficient daylight access (*4.1 Solar and daylight access* refers).

Element Objectives:

When considering the proposal against the element objectives, the room length for Unit 9 and Unit 16 is not well proportioned to facilitate good daylight access and is not acceptable.

#### Universal design

Element 4.9 Universal design objective states:

*O 4.9.1 Development includes dwellings with universal design features providing dwelling options for people living with disabilities or limited mobility and/or to facilitate ageing in place.*

Acceptable Outcomes:

The acceptable outcomes require:

- either 20% of dwellings designed to the Silver level requirements of the Liveable Housing Design Guidelines (Liveable Housing Australia); or
- 5% of dwellings designed to the Platinum Level as defined in Liveable Housing Design Guidelines.

The proposed development does not provide any dwellings that are designed to the Silver Level or Platinum Level as defined in *Liveable Housing Design Guidelines*. The applicant has indicated in their proposal that Unit 5, Unit 6, Unit 12 and Unit 13 (20% of dwellings) are designed to the Silver level requirements of *Liveable Housing Design Guidelines*. However, the City's assessment has determined that the following design features have not been catered for in the dwellings that are intended to meet the Silver Level requirements:

- 3(a) internal corridor doorway clear opening of 675mm is proposed, whereas 820mm clear opening is required.
- 4(a)(ii) a minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door in accordance with Figure 3(a) has not been provided.
- 4(a)(iii) the toilet pan is required to be located in the corner of the room to enable installation of grabrails at a future date whereas the toilet is located between the shower recess and basin, not the corner.

#### Design Guidance:

The proposal also appears to not satisfy the element objective through the design guidance. The design guidance refers to the *Liveable Housing Design Guidelines* as a benchmark for accessibility. In addition, it refers to the provision of Platinum Level dwellings and the provision of parking bays appropriate to the particular type of universal and adaptable dwellings. The development does not satisfy the silver level of the *Liveable Housing Design Guidelines*, Platinum Level or provide parking bays appropriate for universal use.

#### Element Objectives:

When considering the element objective, the proposed development does not include dwellings with universal design features which allow for options for people living with disabilities or limited mobility and/or facilitate aging in place.

#### Landscape design

Element 4.12 Landscape design objective states:

*O 4.12.1 Landscape design enhances streetscape and pedestrian amenity; improves the visual appeal and comfort of open space areas; and provides an attractive outlook for habitable rooms.*

*O 4.12.2 Plant selection is appropriate to the orientation, exposure and site conditions and is suitable for the adjoining uses.*

*O 4.12.3 Landscape design includes water efficient irrigation systems and where appropriate incorporates water harvesting or water re-use technologies.*

*O.4.12.4 Landscape design is integrated with the design intent of the architecture including its built form, materiality, key functional areas and sustainability strategies.*

**Acceptable Outcomes:**

The acceptable outcomes require:

- a landscaping plan prepared by a competent landscape designer;
- landscaped areas to be located and designed to support mature, shade producing trees to open space and the public realm, and to improve outlook and amenity to habitable rooms and open space areas;
- planting on buildings to meet requirements of Table 4.12; and
- building services integrated in the design.

The proposal generally meets the acceptable outcomes, with the exception of landscaping to the visitor parking bays. The landscaping provided between the visitor parking bays is insufficient and does not improve the public realm.

**Design Guidance:**

When considering the design guidance, landscape design should respond to the existing site and environmental conditions, and planting should feature a mix of shade trees, hardy native and endemic species. It is noted that the general provision of landscaping across the site satisfies the design guidance. However, it is noted that there is no design guidance provided that specifically relates to the enhancing of the streetscape.

With the visitor parking space being located within the front setback area, it reduces the amount of soft landscaping provided within the front setback area with the impact of reducing the visual quality of the development to the streetscape. There is also no landscaping between the visitor parking space and Unit 2 private outdoor living space and bedroom 1. The outlook from these living spaces are also negatively impacted by the visitor parking within the front setback area.

**Element Objectives:**

When considering the proposal against the element objectives, the landscape design within the front setback area to the visitor parking bays does not enhance the street or improve the visual appeal and comfort for future occupants using the private open space and bedroom 1.

The applicant has not sufficiently demonstrated that the proposal satisfies the design guidance or achieves the element objectives.

**Options/Alternatives:**

Not applicable.

**Council Recommendation:**

Not applicable.

**Conclusion:**

The built form and scale, functionality, and landscape quality does not appropriately respond to the local context and character, does not provide a high level of amenity to the future occupants of the site or adjoining residents and does not enhance the public realm.

The application is therefore recommended for refusal for the reasons set out in the recommendation.





SITE CONTEXT  
NOT TO SCALE



1:100 @ A1  
1:200 @ A3



**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA004  
A100

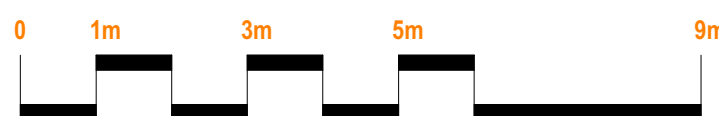
9/05/2019 3:38:23 PM





### ENTRY - SKETCH

RESIDENTIAL PARKING:	28 BAYS ON SITE
VISITOR PARKING:	3 BAYS ON SITE
TOTAL APARTMENTS:	16 APARTMENTS
TOTAL SQM:	16 APARTMENTS
SITE AREA:	1423.9 SQM
APARTMENT AREA:	1316 SQM
PLOT RATIO:	0.92
	14% INCREASE



1:100 @ A1  
1:200 @ A3

**8-10 BRECHIN COURT, DUNCRAIG**

DWG No	TITLE
A.000	COVER
A.101	FEATURE SURVEY
A.102	SITE PLAN
A.201	GROUND FLOOR PLAN
A.202	FIRST FLOOR PLAN
A.203	SECOND FLOOR PLAN
A.204	ROOF PLAN
A.205	SHADOW PLAN
A.206	WMP
A.301	SUN/VENTILATION DIAGRAM
A.302	SUN/VENTILATION DIAGRAM
A.303	SUN/VENTILATION DIAGRAM
A.304	SUN DIAGRAM SECTIONS
A.305	SUN DIAGRAM SECTIONS
A.401	ELEVATION
A.402	ELEVATION
A.403	EXTERNAL RENDERS
A.404	EXTERNAL FINISHES

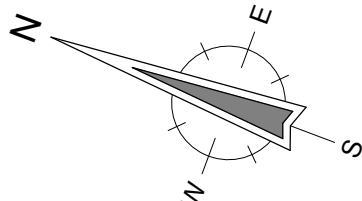


LEVEL DATUM:  
AHD (Approx.)

SCALE AT A3 SIZE:  
1:250

 TEMP. BENCHMARK

A plat map showing several lots. At the top, three lots are labeled LOT 93, LOT 94, and LOT 95. Below them is a large area containing LOT 106, LOT 105, LOT 104, and LOT 103. A street at the bottom is labeled BRECHIN COURT. The lots are separated by lines with dimensions and bearings. LOT 106 has a bearing of S89°42'55"E and a distance of 27.01. LOT 105 has a bearing of N34°02'E and a distance of 34.07. LOT 104 has a bearing of N86°20'51"E and a distance of 21.67. LOT 103 has a bearing of N90°E and a distance of 34. There is also a small lot between LOT 105 and LOT 104 with a bearing of N79°39'15"E and a distance of 17.5. Another lot below it has a bearing of N83°39'9"E and a distance of 19.5. The boundary between LOT 105 and LOT 106 is a curve with a radius of 117'-9" and an angle of 31°.



TELSTRA	PIT
SEWERAGE	YES
DRAINAGE	GOOD
VEG. / SOIL	AS DESCRIBED

CHECK TITLE FOR EASEMENTS / COVENANTS ETC.

NORTH  
BOUNDARY

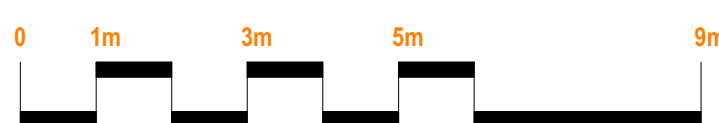
SOUTH  
BOUNDARY

EAST  
BOUNDARY

WEST  
BOUNDARY

SITE PLAN

1 : 100



1:100 @ A1  
1:200 @ A3

**ZEGNA**  
BUILDING  
zegna.net.au

**HARDENJONESARCHITECTS**

www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007

A102

20/06/2019 2:48:34 PM





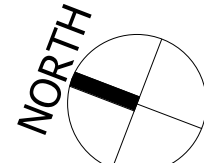


1. GROUND FLOOR  
1 : 100

RESIDENTIAL PARKING:	28 BAYS ON SITE
VISITOR PARKING:	3 BAYS ON SITE
TOTAL APARTMENTS:	16 APARTMENTS
TOTAL SQM:	16 APARTMENTS
SITE AREA:	1423.9 SQM
APARTMENT AREA:	1316 SQM
PLOT RATIO:	0.92
	14% INCREASE

LANDSCAPING INDICATIVE  
ONLY - REFER LO1, LO2 & LO3  
FOR CORRECT LANDSCAPING  
INFORMATION.

<b>CAR PARKING (LOCATION A)</b>	
28 RESIDENTIAL BAYS + 3 VISITOR BAYS	
1 BAY PER	1x1 APARTMENT (3 APARTMENTS)
2 BAYS PER	2x2 APARTMENT (10 APARTMENTS)
	3x2 APARTMENT (3 APARTMENTS)
<b>BIKE PARKING</b>	
WALL HUNG BIKES RACKS	
2 x VISITOR	
4 x WALL HUNG FOR RESIDENTS	
RESIDENTIAL BIKE RACKS	
1 PER APT, WITHIN STORE	
TOTAL BIKE RACKS = 22	
<b>BIN ENCLOSURE &amp; HARD WASTE STAND - 21 SQM</b>	
<b>GENERAL</b>	
660L LITRES SULO BINS x 4	
<b>RECYCLING</b>	
660L LITERS SULO BINS x 3	
<b>CONC FLOOR &amp; FW</b>	
DRAINED TO SEWER SYSTEM. TAP FOR WASH DOWN. H & C WATER REQUIRED.	
<b>WASTE &amp; RECYCLING BINS CALCS AS PER WALGA MULTIPLE DWELLING WASTE MANAGEMENT PLAN GUIDELINES</b>	
BIN DOOR TRACKS TO BE INSET INTO SLAB FLUSH MOUNTED FOR BIN ACCESS	



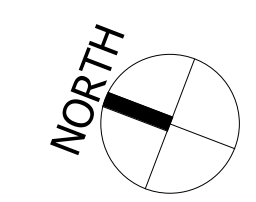


NORTH  
BOUNDARY

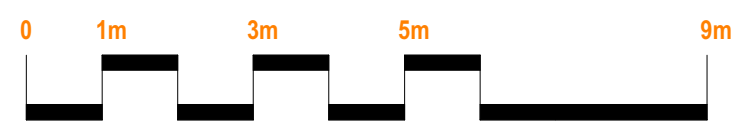
SOUTH  
BOUNDARY

EAST  
BOUNDARY

WEST  
BOUNDARY



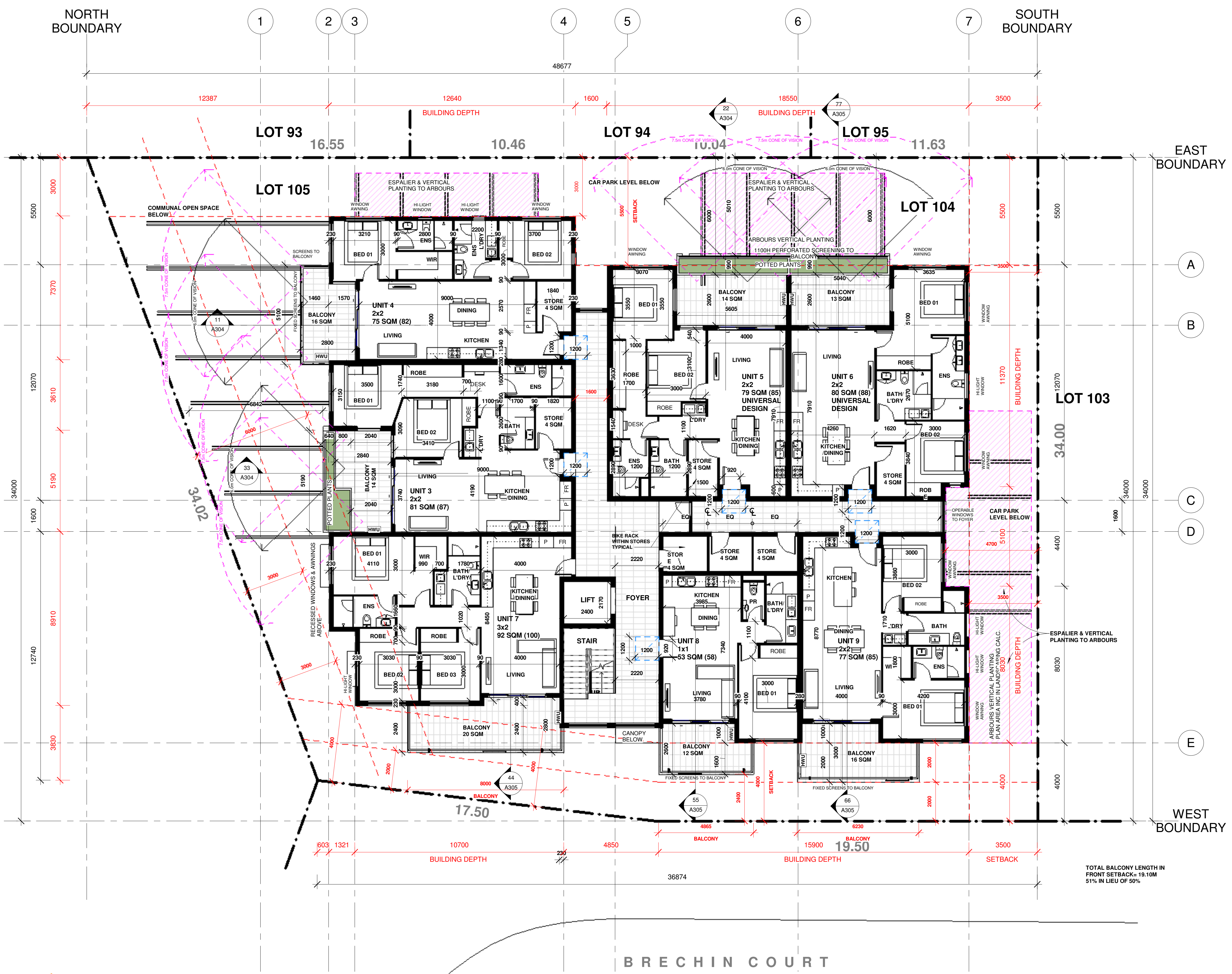
2. FIRST FLOOR  
1 : 100



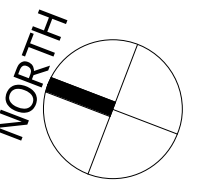
1:100 @ A1  
1:200 @ A3

**ZEGNA**  
BUILDING  
zegna.net.au  
**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007  
A202  
20/06/2019 2:48:42 PM







20/06/2019 2:48:45 PM



NORTH  
BOUNDARY

1

2

3

4

5

6

7

SOUTH  
BOUNDARY

LOT 93

16.55

10.46

LOT 94

10.04

LOT 95

11.63

EAST  
BOUNDARY

LOT 105

LOT 104

LOT 103

34.00

34.02

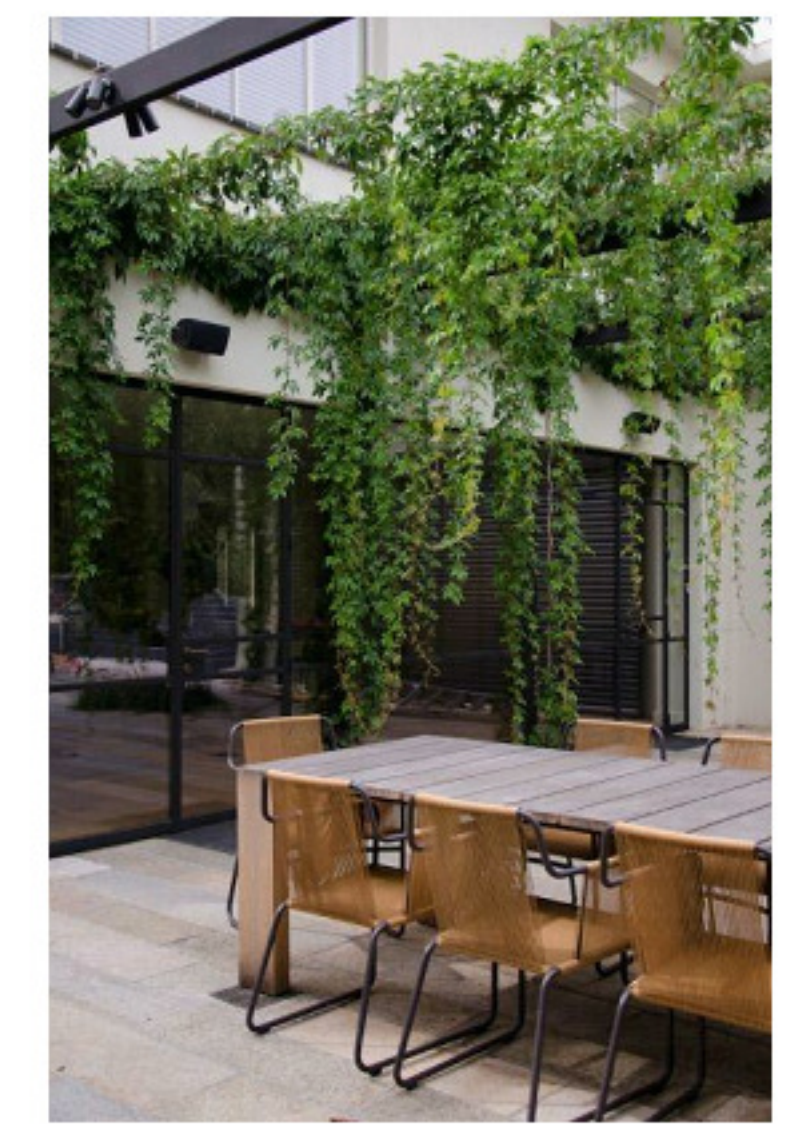
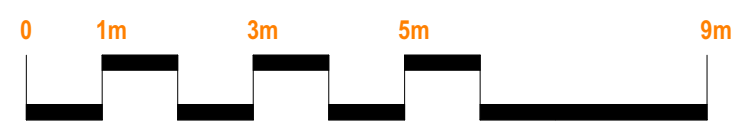
17.50

19.50

WEST  
BOUNDARY

BRECHIN COURT

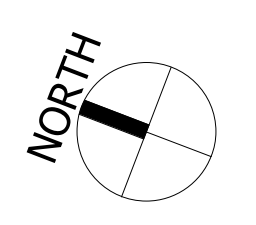
ROOF  
1 : 100



VERTICAL LANDSCAPING TO ARBOURS



PLANTER BEDS

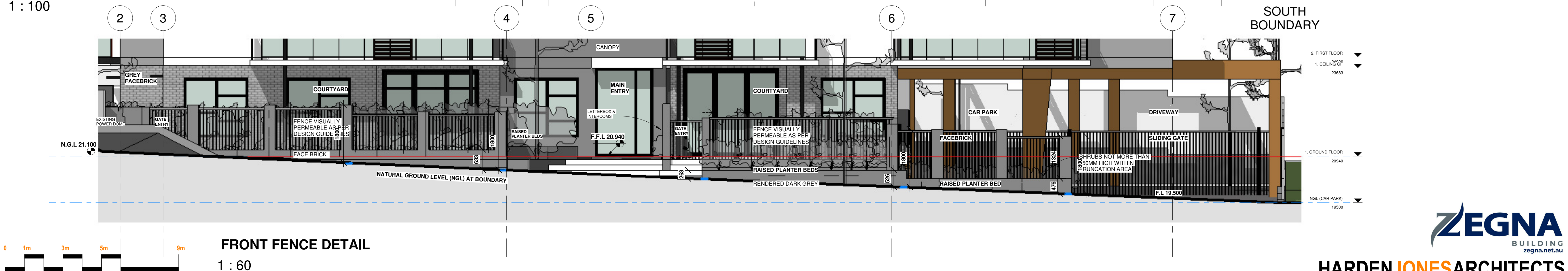
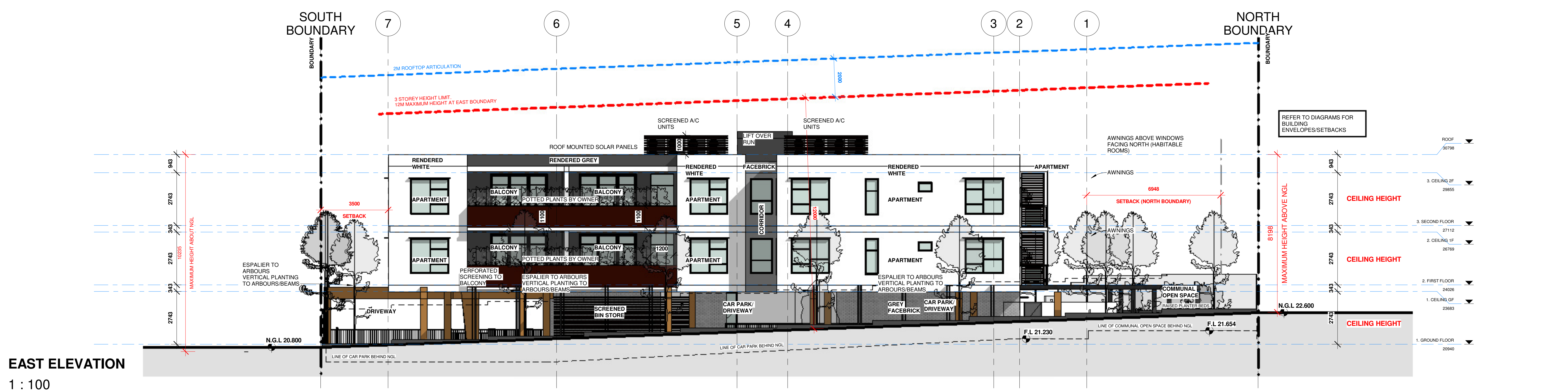


HARDENJONESARCHITECTS  
www.hjarchitect.com.au

1:100 @ A1  
1:200 @ A3

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007  
A204  
20/06/2019 2:48:46 PM

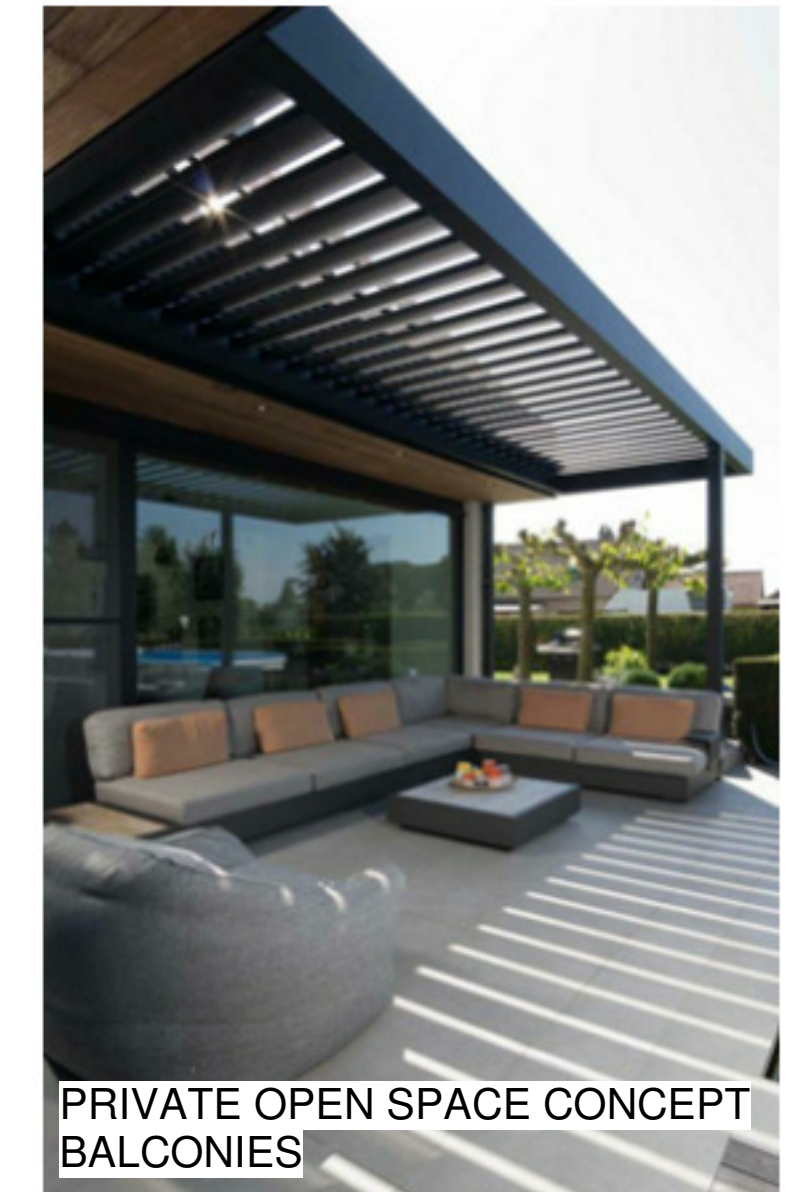




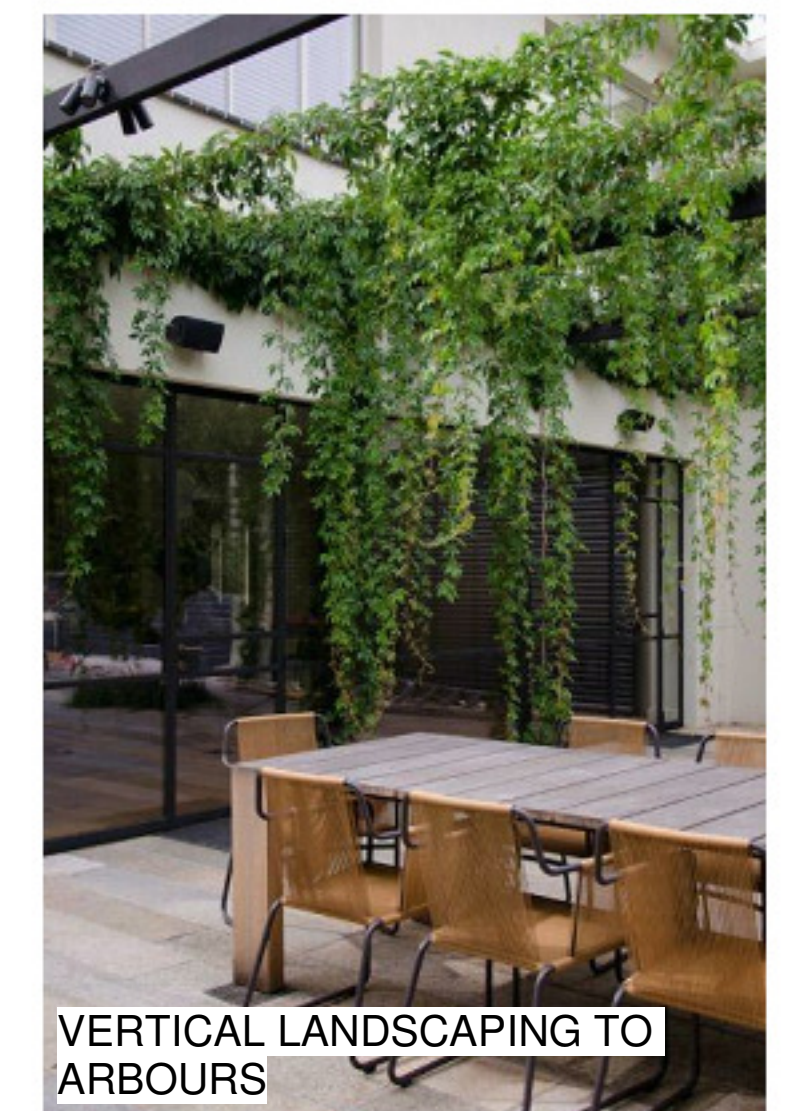




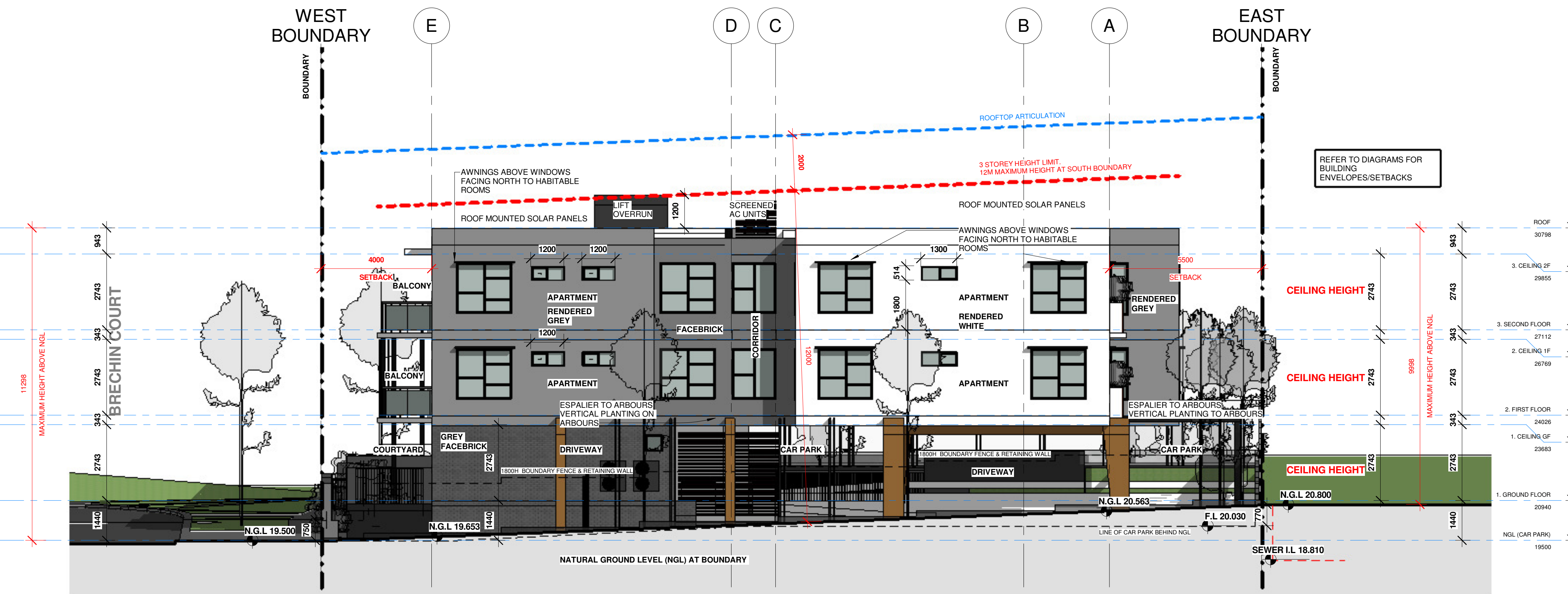
AL WINDOW AWNING



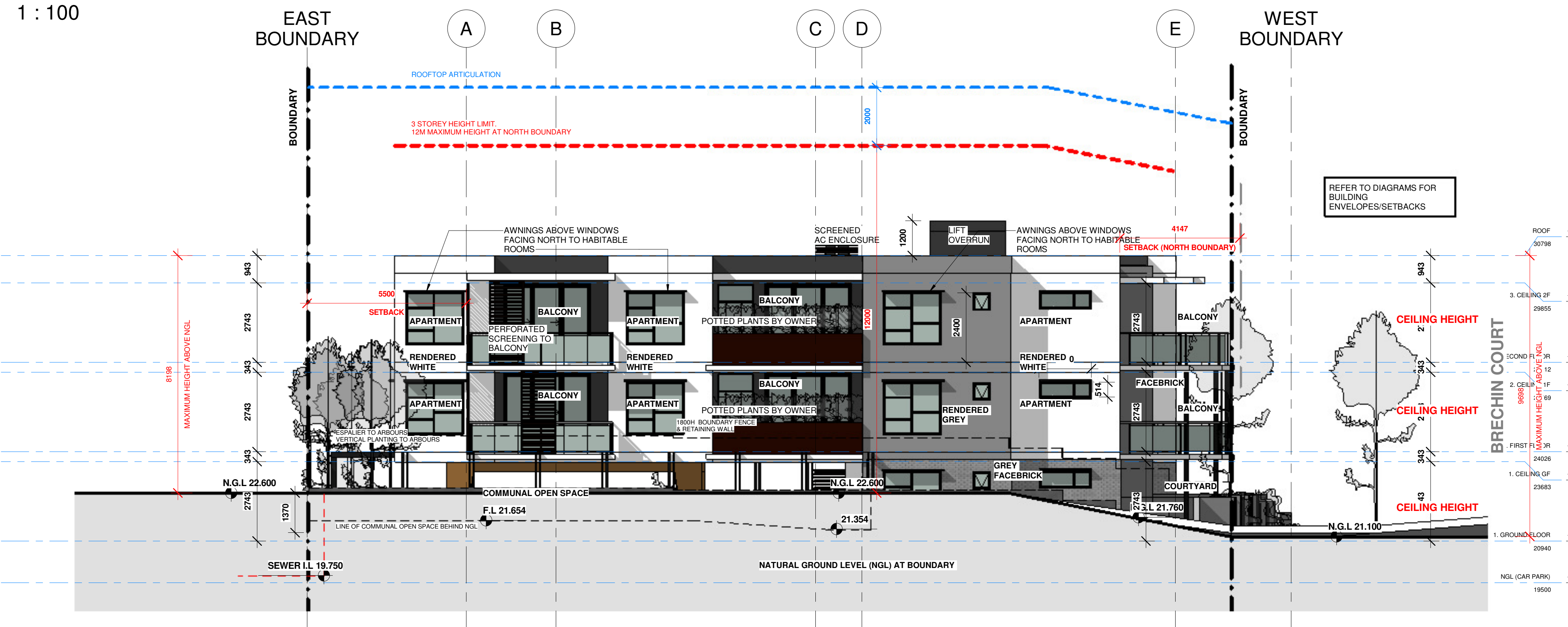
PRIVATE OPEN SPACE CONCEPT BALCONIES



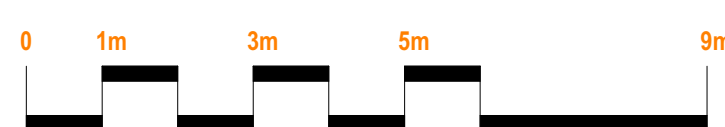
VERTICAL LANDSCAPING TO ARBOURS



SOUTH ELEVATION  
1 : 100



NORTH ELEVATION  
1 : 100



1:100 @ A1  
1:200 @ A3

**ZEGNA**  
BUILDING  
zegna.net.au

**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007  
A402  
20/06/2019 2:49:24 PM





**EAST ELEVATION**  
1 : 1



**NORTH ELEVATION**  
1 : 1



**SOUTH ELEVATION**  
1 : 1



**WEST ELEVATION**  
1 : 1

NOT TO SCALE





BRECHIN CT CBRECHIN CRT-



ENTRY PERSPECTIVE-

EXTERNAL FINISHES:



1 FACE BRICK - GREY



2 PLANTER BEDS



3 ALUMINIUM GLASS BALUSTRADE



4 FACE BRICK -



5 CONCRETE BEAMS / ARBORS -  
VERTICAL PLANTING

6 RENDERED - GREY

7 RENDERED - WHITE

8 RENDERED - DARK GREY

NOT TO SCALE



8-10 BRECHIN COURT, DUNCRAIG

DWG No	TITLE
A.1000	COVER
A.1001	SITE CONTEXT
A.1001	SITE CONTEXT
A.1001	CONTEXT ELEVATION
A.1001	PERSPECTIVES



HARDENJONESARCHITECTS  
www.hjarchitect.com.au





SITE CONTEXT

NOT TO SCALE



HARDENJONESARCHITECTS

www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA006

A1001

6/06/2019 4:03:29 PM





SITE CONTEXT

NOT TO SCALE



**HARDENJONESARCHITECTS**

www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA006  
A1002

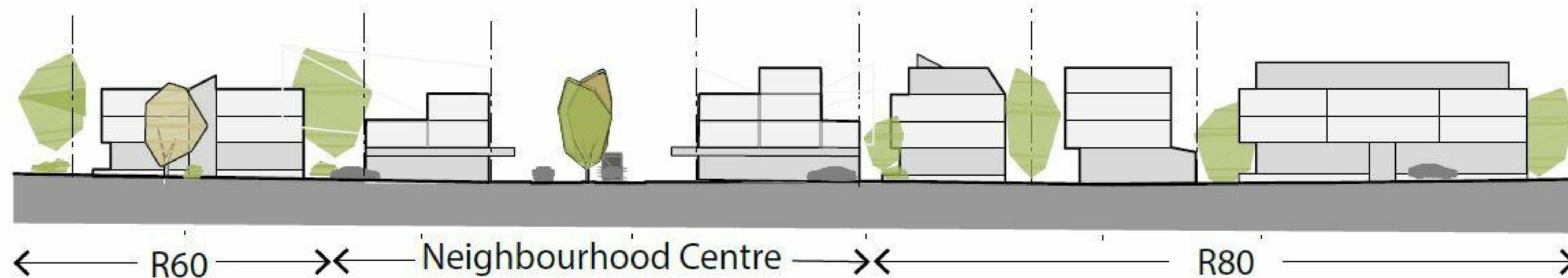
6/06/2019 4:03:30 PM



## Neighbourhood centre

**Context:** A local or neighbourhood centre within a low – medium rise residential area. Neighbourhood centres should be located within a short walk of transport and other amenities and include built form and uses that activate the **street**. Land uses within a neighbourhood centre may include residential, community facilities, local shopping and commercial activities.

**Character:** Neighbourhood centres have a compact and cohesive urban form that complements the surrounding residential character in scale and style. New **development** should contribute to the public realm by enhancing and activating the **streetscape** and contributing to creating a distinct and appealing character for the centre.



A2 - STREETScape CHARACTER TYPES - P116 DESIGN WA



BRECHIN COURT STREET ELEVATION - EXISTING WITH PROPOSED DEVELOPMENT



BRECHIN COURT STREET ELEVATION - EXISTING WITH PROPOSED DEVELOPMENT

NOT TO SCALE





BRECHIN COURT STREET ELEVATION - FUTURE DEVELOPMENT INDICATIVE ONLY.



BRECHIN COURT STREET ELEVATION - FUTURE DEVELOPMENT INDICATIVE ONLY.





NOT TO SCALE

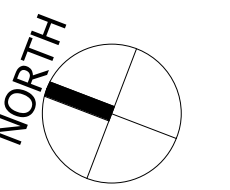
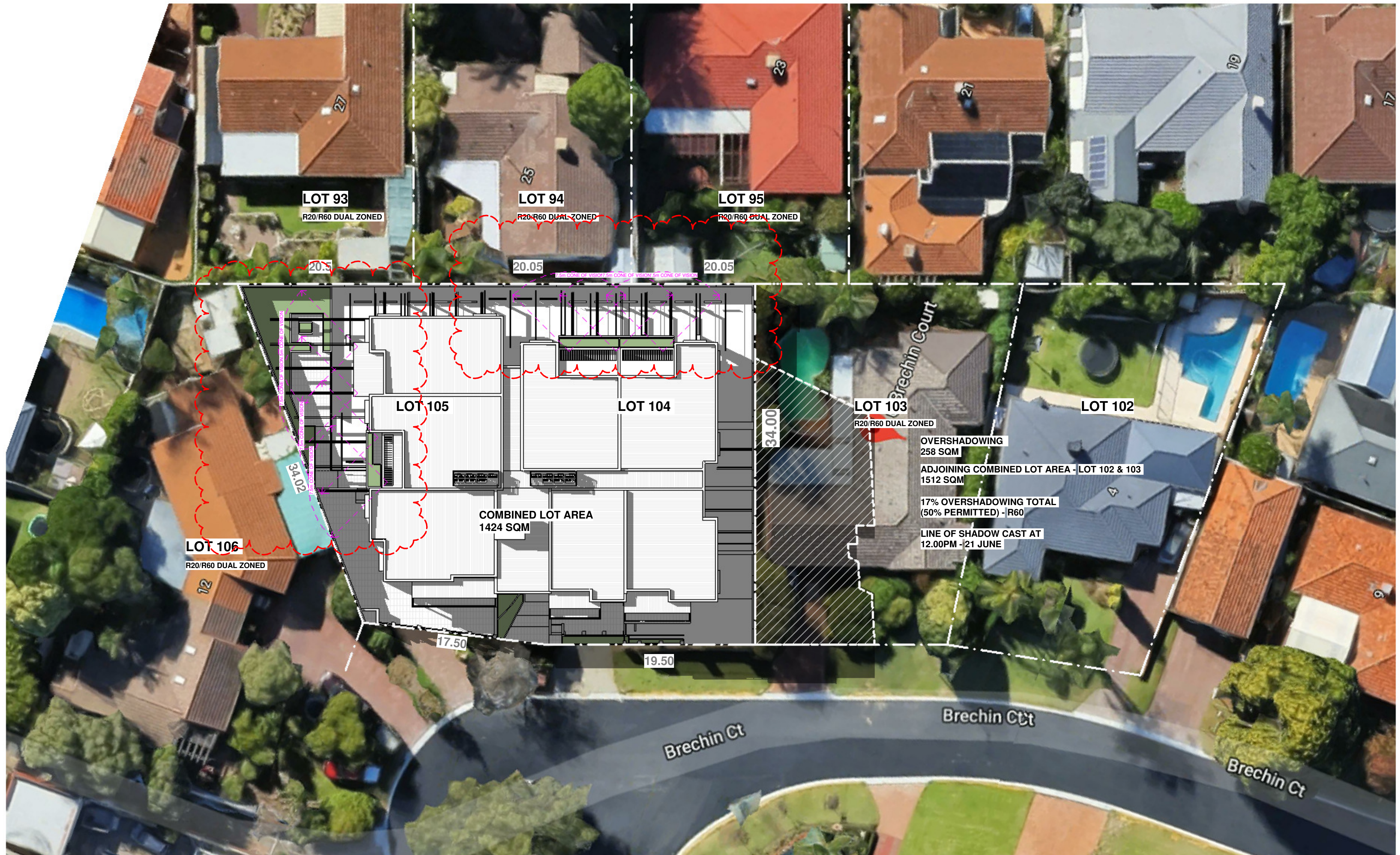


**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA006  
A1006

14/06/2019 9:49:38 AM





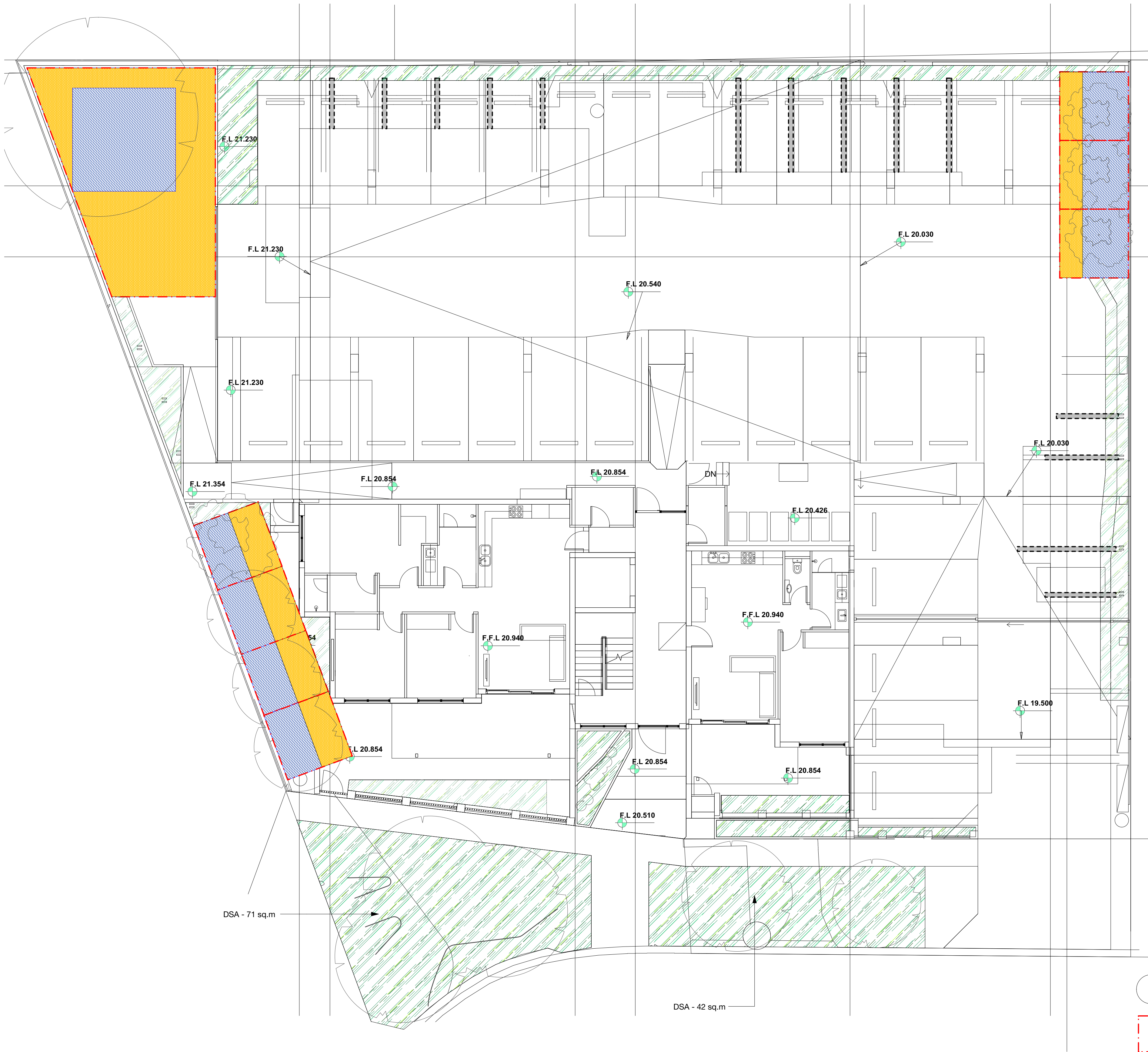
SHADOW DIAGRAM  
1 : 200











1 Deep Soil Planting Areas  
Scale: 1:100

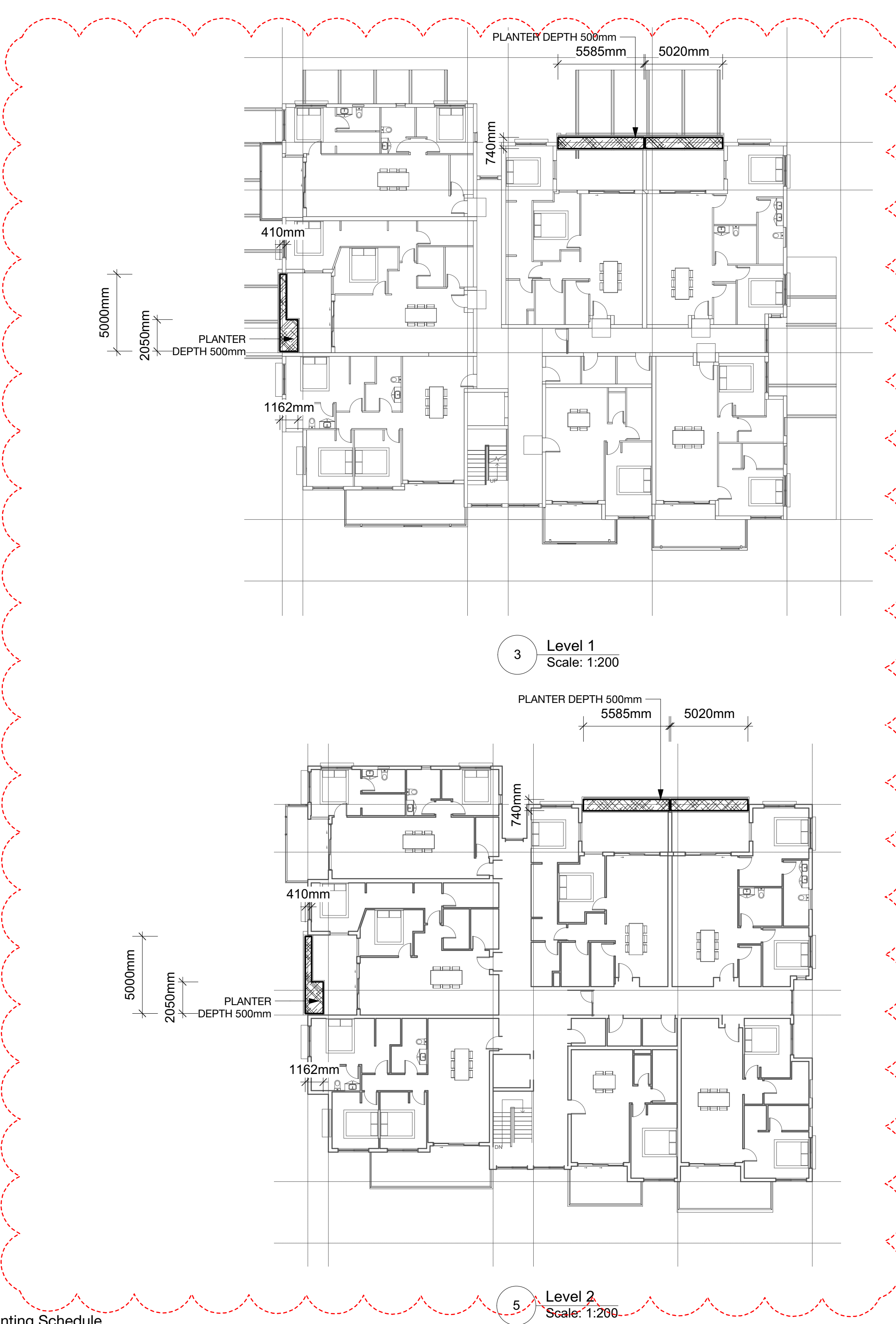
2 Deep Soil Planting Schedule

- REQUIRED DEEP SOIL AREA (DSA) PER TREE
- MINIMUM DSA WIDTH
- ADDITIONAL ROOTABLE SOIL ZONE (RSZ)
- DEEP SOIL ZONES
- PLANTING ON STRUCTURE - 1m DEPTH

Plant ID	Botanical name	Scheduled Size	Tree Size	Count
LAG TU	Lagerstromeria indica x L.fauriei 'Tuscarora'	100Lt	6000	3
CUP AN	Cupaniopsis anacardioides 'Tuckeroo'	100lt	9000	3
MEL LE	Melaleuca leucadendra	100Lt	10000	3
EUC SI	Eucalyptus sideroxylon 'Rosea'	100lt	12000	3
PRU CS	Prunus cerasifera 'Crimson Spire'	100Lt	7000	3
PER AM	Persea americana	400Lt	15000	3

LOT AREA - 1424 SQ.M  
DSA - 200 SQ.M - 14%

NOTE: Calculations have excluded verge areas outside of lot boundary



3 Level 1  
Scale: 1:200

5 Level 2  
Scale: 1:200

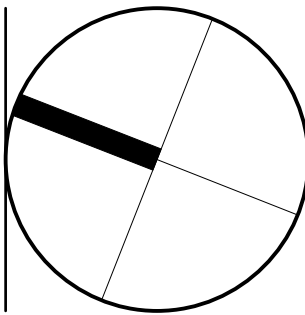
Note: Contractors shall verify all dimensions onsite and refer discrepancies to this office prior to commencement of construction. If you have any queries please contact **Newforms Landscape Architecture** at Unit 4, 11 Milson Place O'Connor Western Australia 6163. Tel. +61 8 9337 6985 Fax. +61 8 9337 6680

Client Name: Zegna Pty Ltd

Signature:

Project:  
8-10 Brechin Court Duncraig

Revisions:  
REV A- DA APPROVAL  
REV B- DA APPROVAL  
REV C- DA APPROVAL  
REV D- DA APPROVAL



L02

Scale: As Shown @A1

Title:  
Deep Soil Root Plan Zone

Job No: D118

Date: 01.07.2019

Designed: MH

Drawn: CD

newforms





SOLAR ACCESS & CROSS VENTILATION DIAGRAM - GROUND FLOOR

1 : 100



1:100 @ A1  
1:200 @ A3

DESIGN WA - APARTMENT DESIGN  
VOLUME TWO OF STATE PLANNING POLICY NO. 7.3 RESIDENTIAL DESIGN CODES  
GUIDANCE FOR MULTIPLE-DWELLING AND MIXED-USE DEVELOPMENTS

A 4.1 SOLAR AND DAYLIGHT ACCESS - FIGURE 4.1B  
(ILLUSTRATED ON PROPOSED DESIGN) - CLIMATE ZONE 5

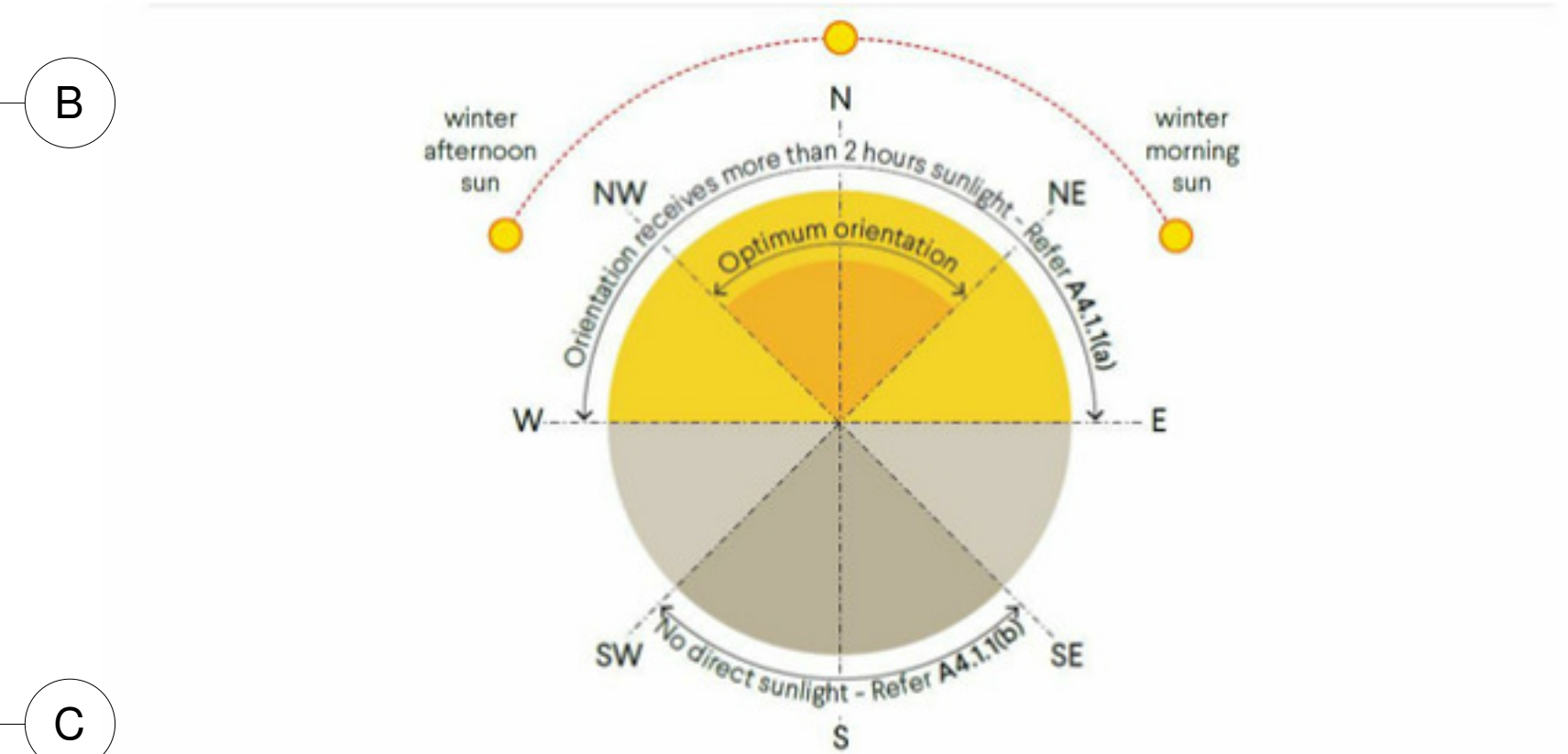


Figure 4.1b The hours of sunlight that can be expected in mid winter are directly related to the orientation of the windows or balconies. To achieve 2 hours sunlight (refer A4.1.1(a)), windows must be facing between west and north; or between north and east. This diagram shows the optimal orientation for sunlight to reach any portion of a window or balcony on 21 June in climate zones 4, 5 and 6.

STATE PLANNING POLICY 7.3 RESIDENTIAL DESIGN CODES VOLUME 2 - APARTMENTS 61

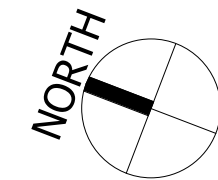
A4.2.2. MINIMUM 60% OF ALL DWELLINGS ARE CAPABLE OF BEING  
NATURAL CROSS VENTILATED.

APARTMENTS NOTED 'NCV' ACHIEVE NATURAL CROSS VENTILATION

APARTMENTS 1, 2, 4, 6, 7, 9, 11, 13, 14, 16 ACHIEVE NCV  
62.5% OF APARTMENTS IN DEVELOPMENT

INDICATES AIR FLOW DIRECTION

E



**ZEGNA**  
BUILDING  
zegna.net.au

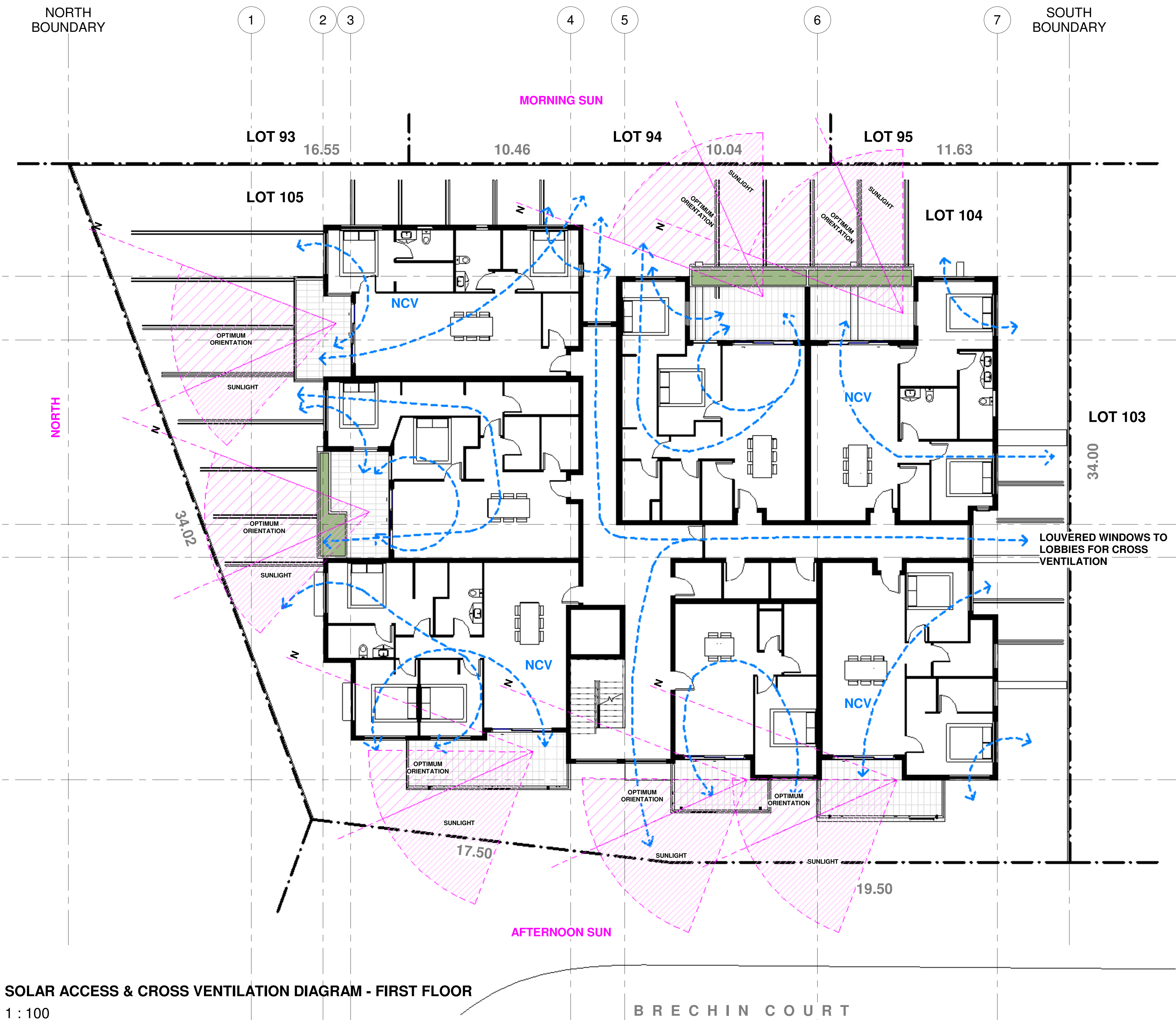
**HARDENJONESARCHITECTS**

www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007  
A301

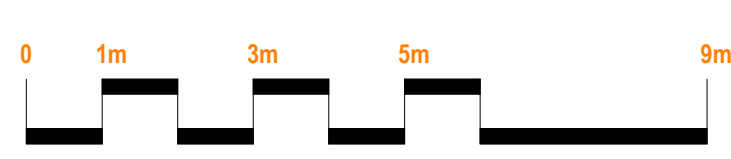
20/06/2019 2:48:55 PM





SOLAR ACCESS & CROSS VENTILATION DIAGRAM - FIRST FLOOR

1 : 100



1:100 @ A1  
1:200 @ A3

DESIGN WA - APARTMENT DESIGN  
VOLUME TWO OF STATE PLANNING POLICY NO. 7.3 RESIDENTIAL DESIGN CODES  
GUIDANCE FOR MULTIPLE-DWELLING AND MIXED-USE DEVELOPMENTS

A 4.1 SOLAR AND DAYLIGHT ACCESS - FIGURE 4.1B  
(ILLUSTRATED ON PROPOSED DESIGN) - CLIMATE ZONE 5

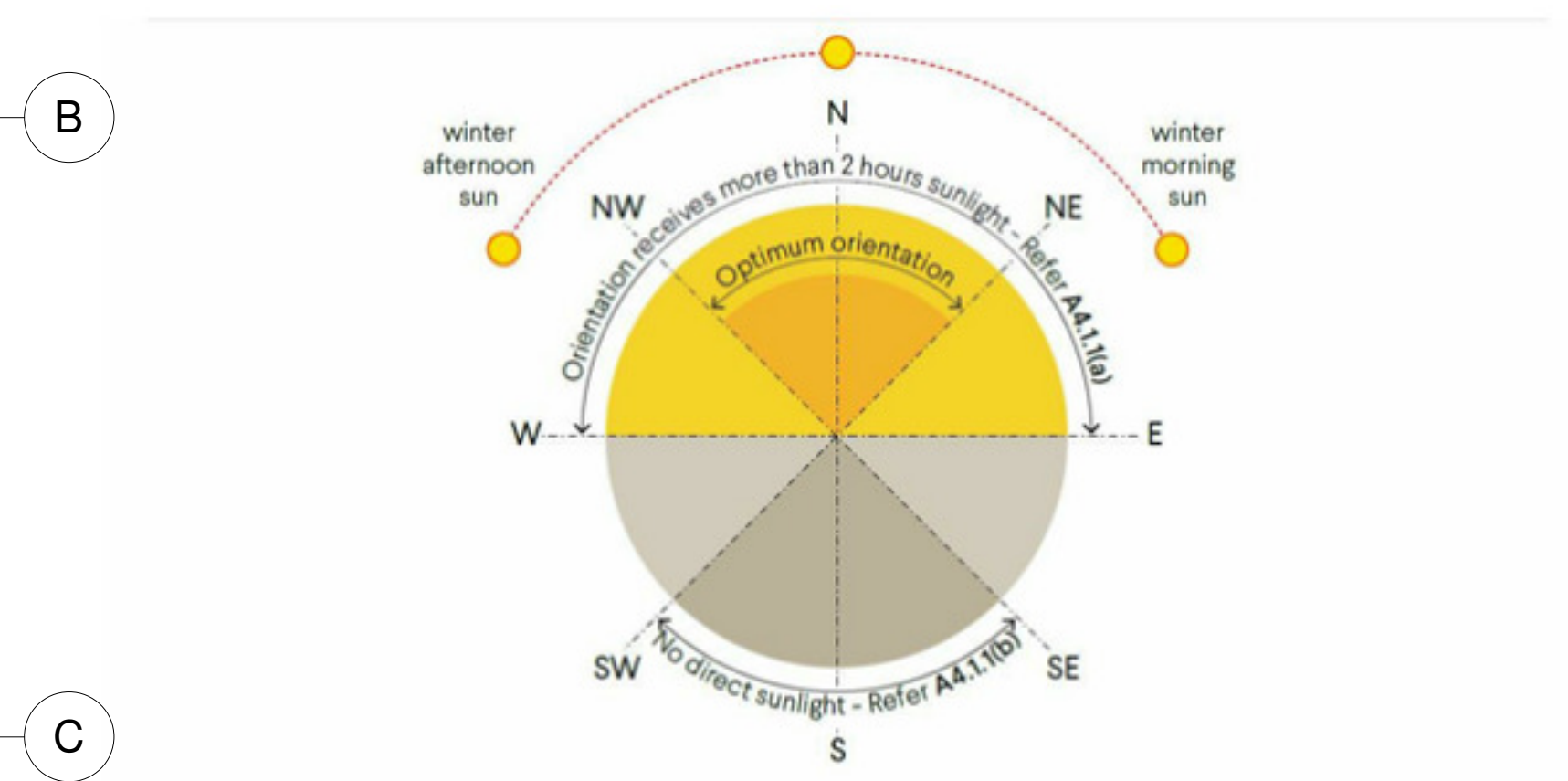


Figure 4.1b The hours of sunlight that can be expected in mid winter are directly related to the orientation of the windows or balconies. To achieve 2 hours sunlight (refer A4.1.1b), windows must be facing between west and north or between north and east. This diagram shows the optimal orientation for sunlight to reach any portion of a window or balcony on 21 June in climate zones 4, 5 and 6.

STATE PLANNING POLICY 7.3 RESIDENTIAL DESIGN CODES VOLUME 2 - APARTMENTS 61

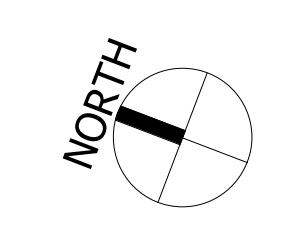
A4.2.2. MINIMUM 60% OF ALL DWELLINGS ARE CAPABLE OF BEING NATURAL CROSS VENTILATED.

APARTMENTS NOTED 'NCV' ACHIEVE NATURAL CROSS VENTILATION

APARTMENTS 1, 2, 4, 6, 7, 9, 11, 13, 14, 16 ACHIEVE NCV  
62.5% OF APARTMENTS IN DEVELOPMENT

INDICATES AIR FLOW DIRECTION

E



HARDENJONESARCHITECTS

www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007

A302

20/06/2019 2:48:56 PM



NORTH  
BOUNDARY

1

2

3

4

5

6

7

SOUTH  
BOUNDARY

LOT 93

16.55

10.46

LOT 94

10.04

LOT 95

11.63

LOT 105

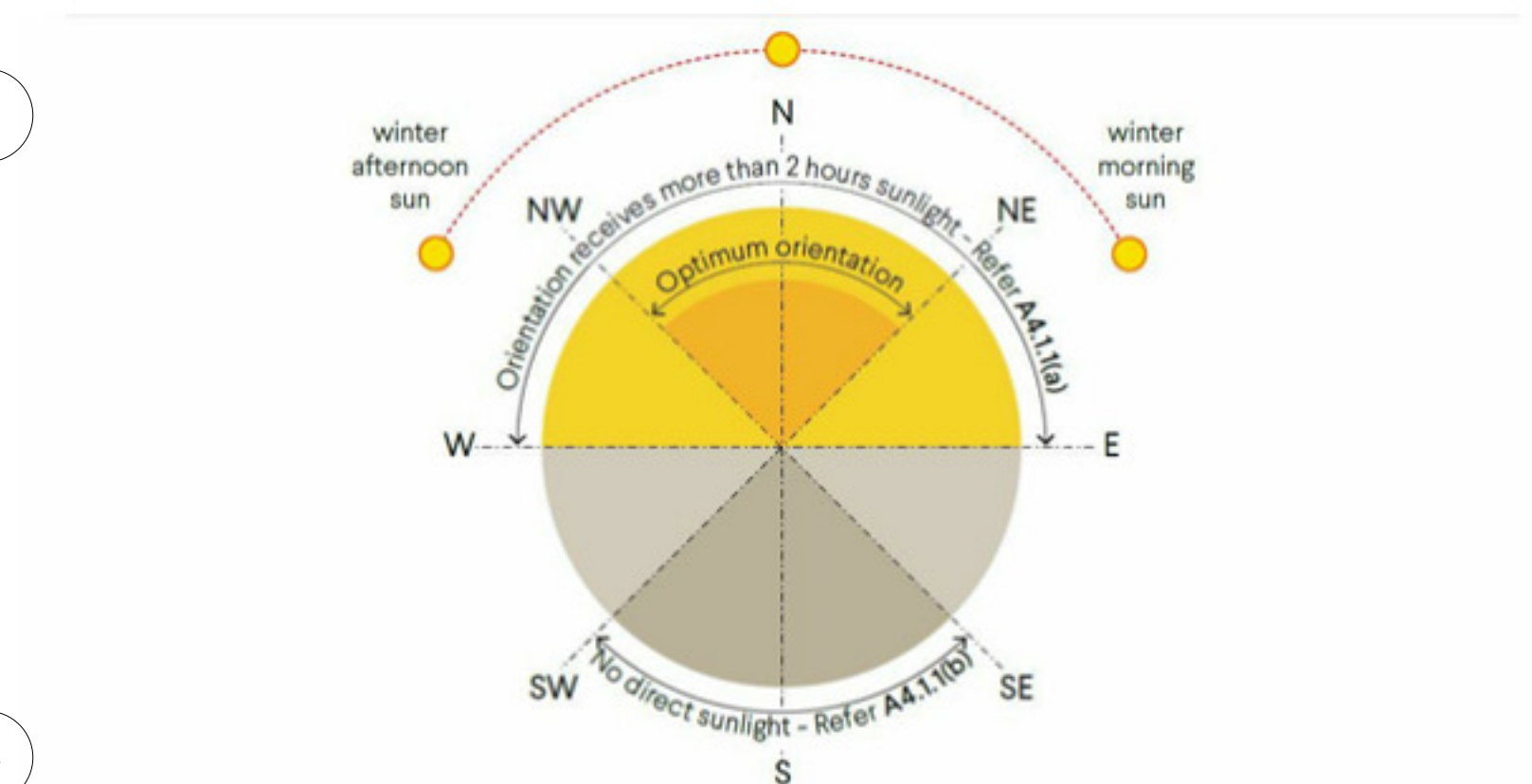
LOT 104

EAST  
BOUNDARY

DESIGN WA - APARTMENT DESIGN  
VOLUME TWO OF STATE PLANNING POLICY NO. 7.3 RESIDENTIAL DESIGN CODES  
GUIDANCE FOR MULTIPLE-DWELLING AND MIXED-USE DEVELOPMENTS

A 4.1 SOLAR AND DAYLIGHT ACCESS - FIGURE 4.1B  
(ILLUSTRATED ON PROPOSED DESIGN) - CLIMATE ZONE 5

B



C

D Figure 4.1b The hours of sunlight that can be expected in mid winter are directly related to the orientation of the windows or balconies. To achieve 2 hours sunlight (refer A4.1.1(a)), windows must be facing between west and north; or between north and east. This diagram shows the optimal orientation for sunlight to reach any portion of a window or balcony on 21 June in climate zones 4, 5 and 6.

STATE PLANNING POLICY 7.3 RESIDENTIAL DESIGN CODES VOLUME 2 - APARTMENTS 61

A4.2.2. MINIMUM 60% OF ALL DWELLINGS ARE CAPABLE OF BEING  
NATURAL CROSS VENTILATED.

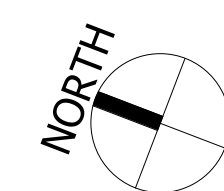
APARTMENTS NOTED 'NCV' ACHIEVE NATURAL CROSS VENTILATION

APARTMENTS 1, 2, 4, 6, 7, 9, 11, 13, 14, 16 ACHIEVE NCV  
62.5% OF APARTMENTS IN DEVELOPMENT

INDICATES AIR FLOW DIRECTION

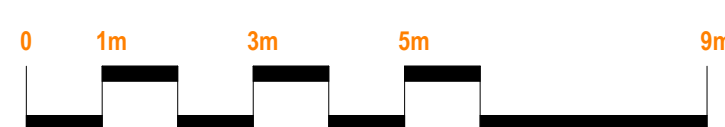
E

WEST  
BOUNDARY



SOLAR ACCESS & CROSS VENTILATION DIAGRAM - SECOND FLOOR

1 : 100



BRECHIN COURT

1:100 @ A1  
1:200 @ A3

**ZEGNA**  
BUILDING  
zegna.net.au

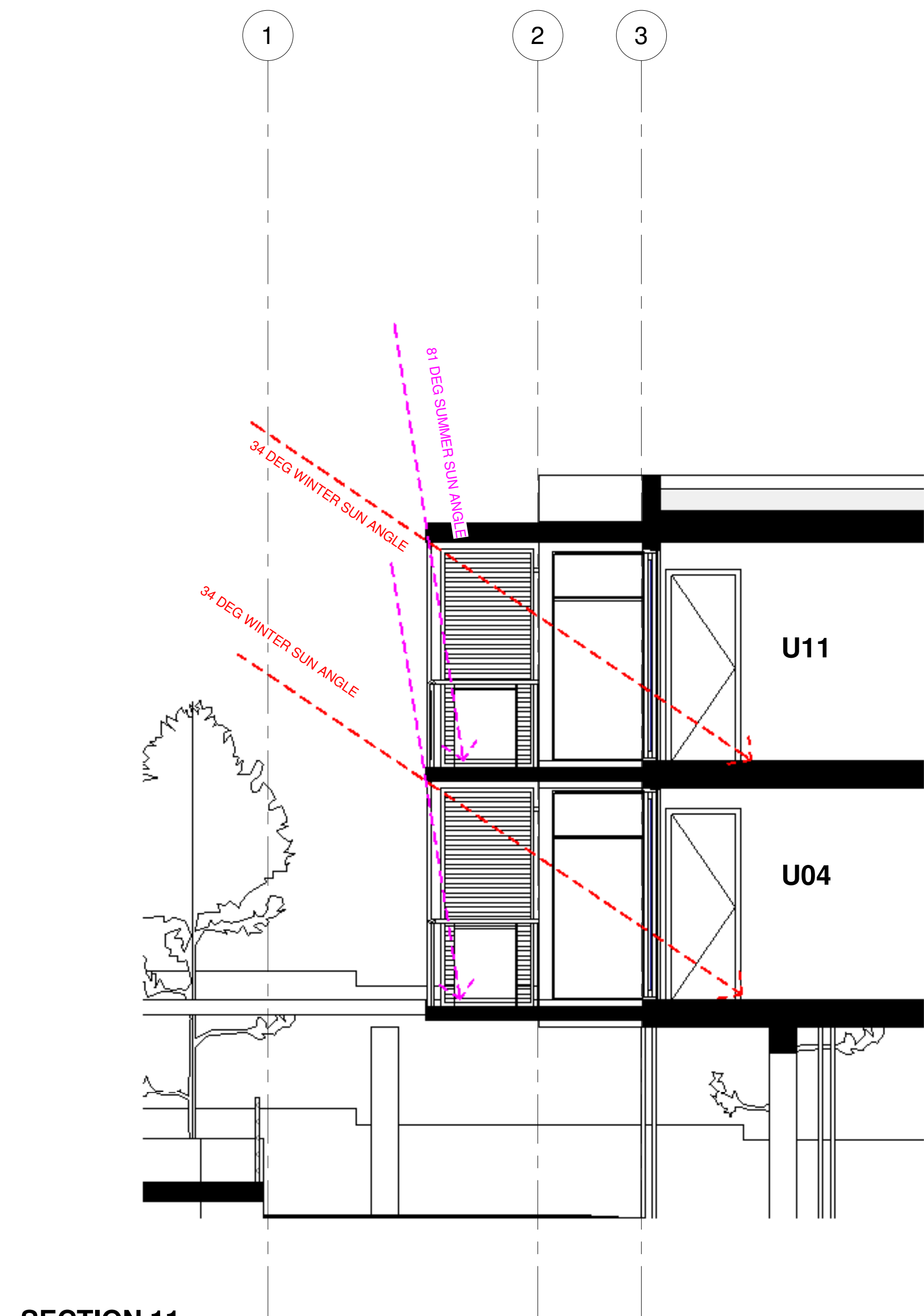
**HARDENJONESARCHITECTS**

www.hjarchitect.com.au

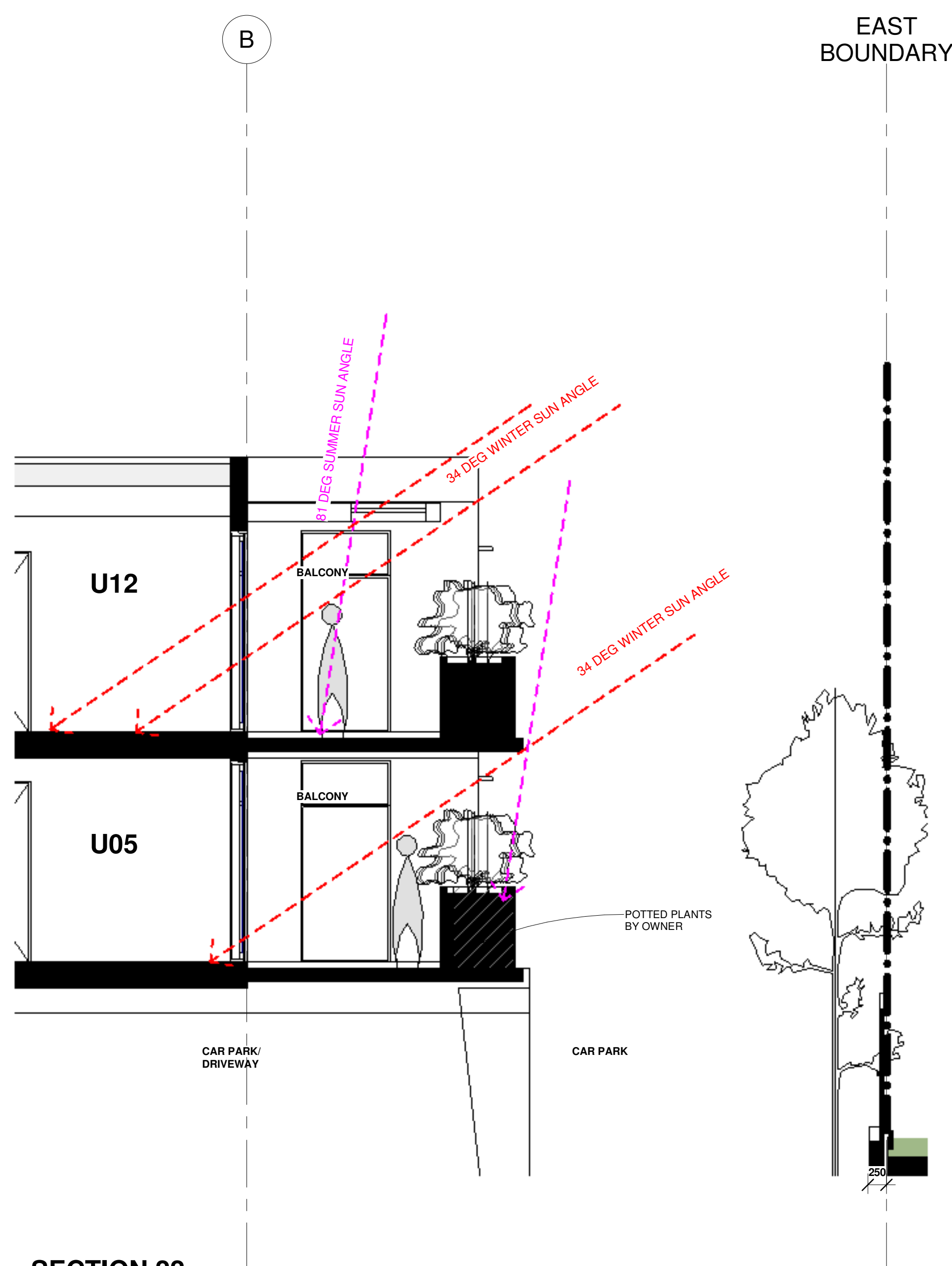
8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007

A303

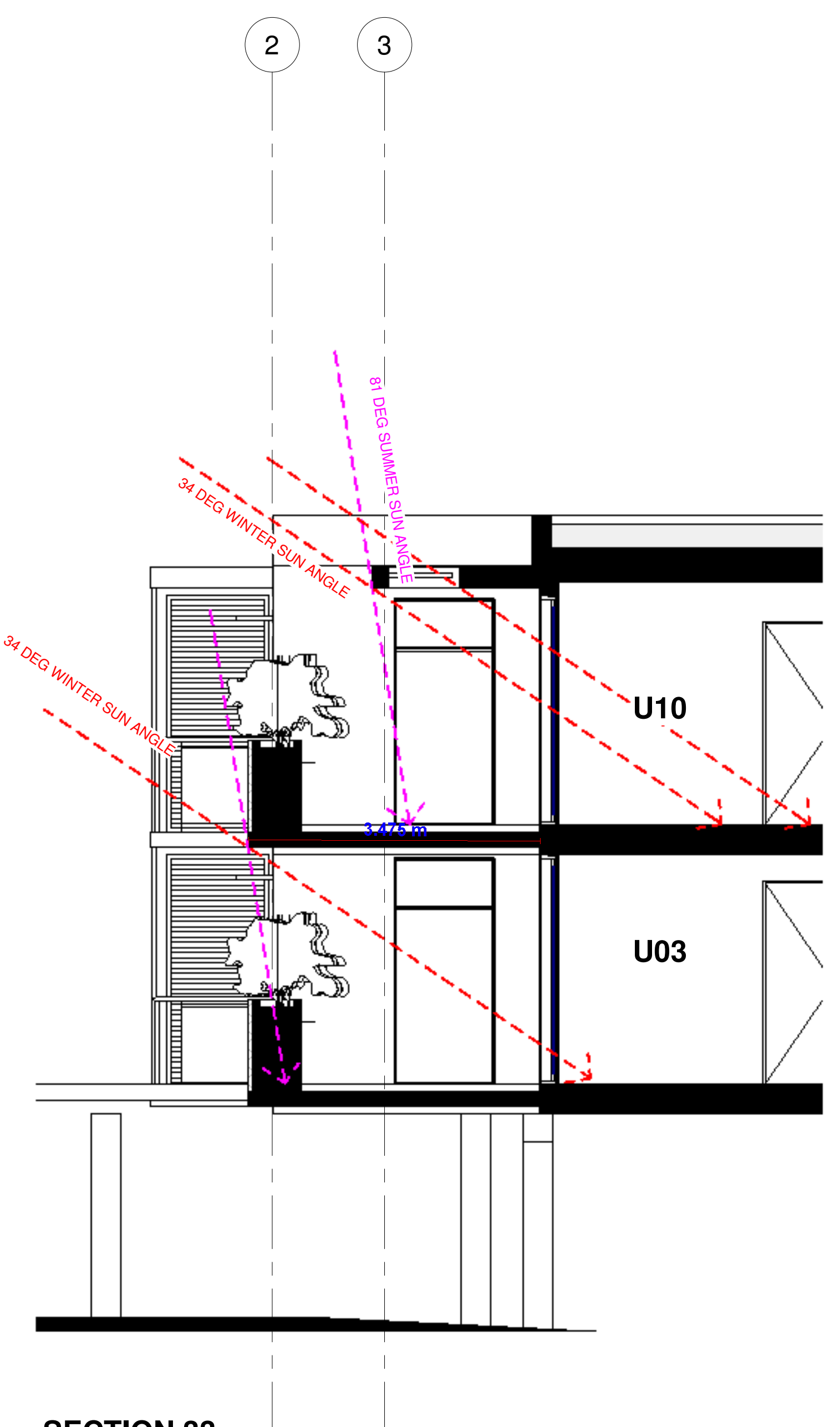
20/06/2019 2:48:57 PM



SECTION 11  
1 : 50



SECTION 22  
1 : 50



SECTION 33  
1 : 50



1:100 @ A1  
1:200 @ A3



**HARDENJONESARCHITECTS**

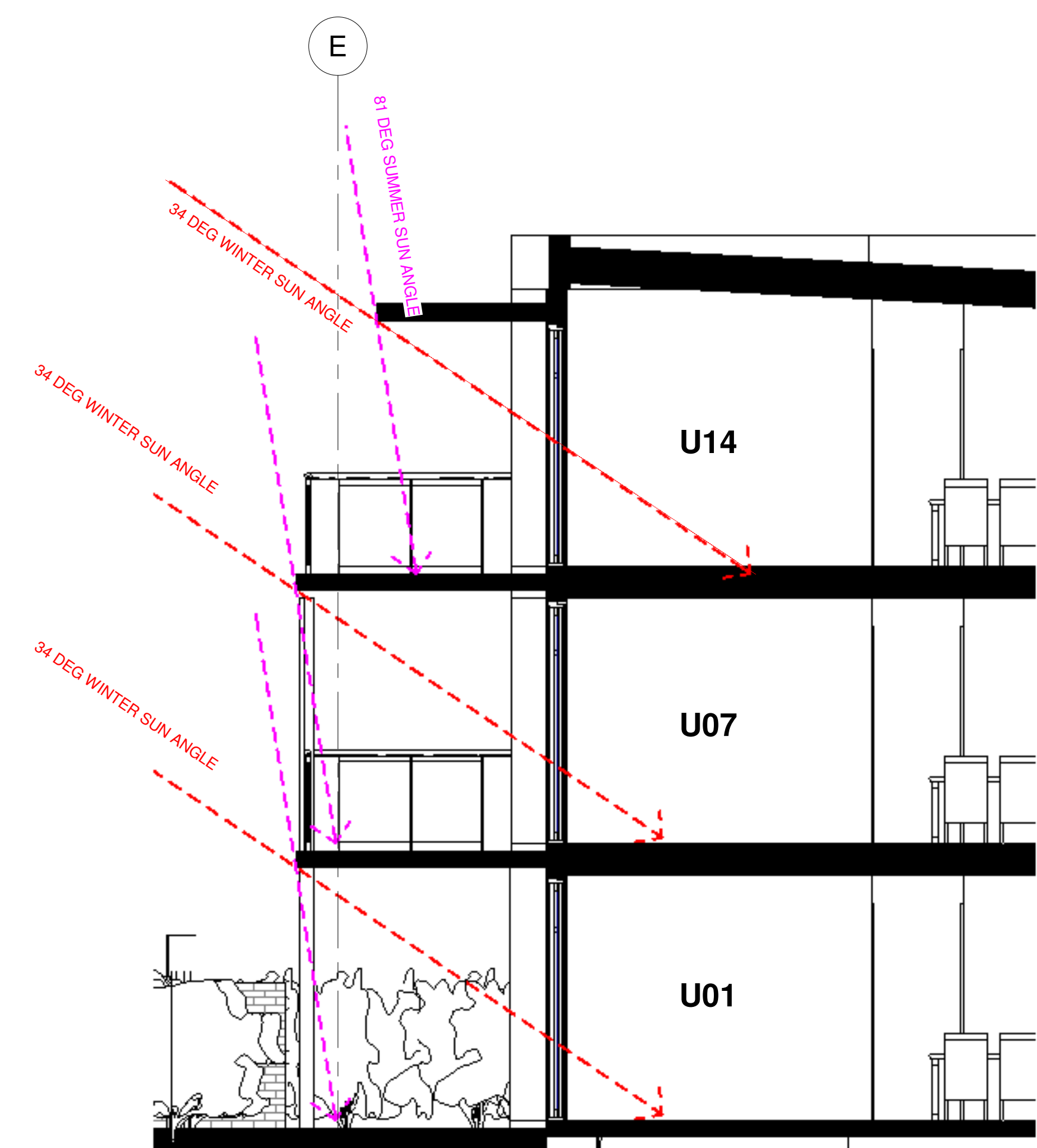
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007

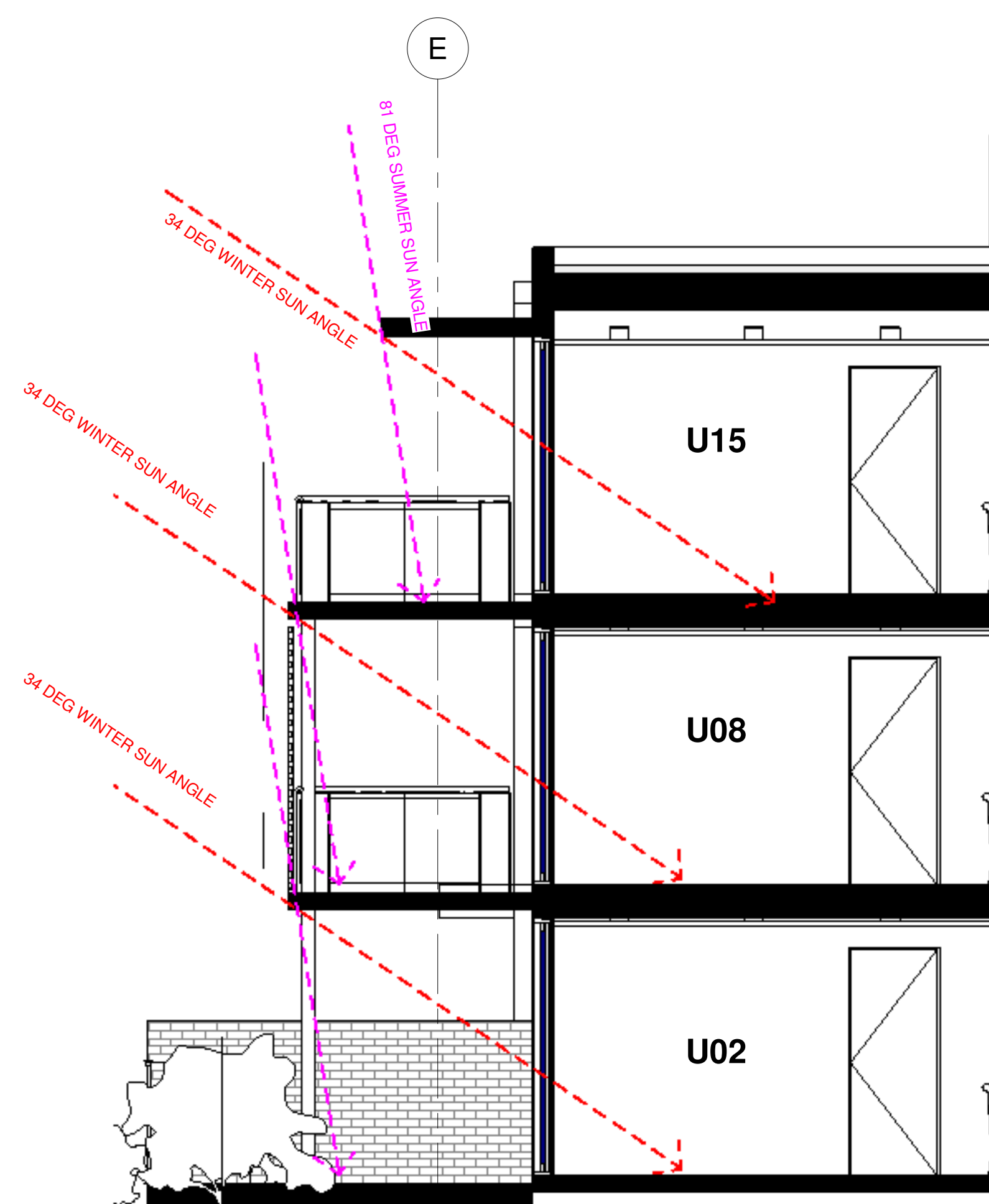
A304

20/06/2019 2:48:58 PM

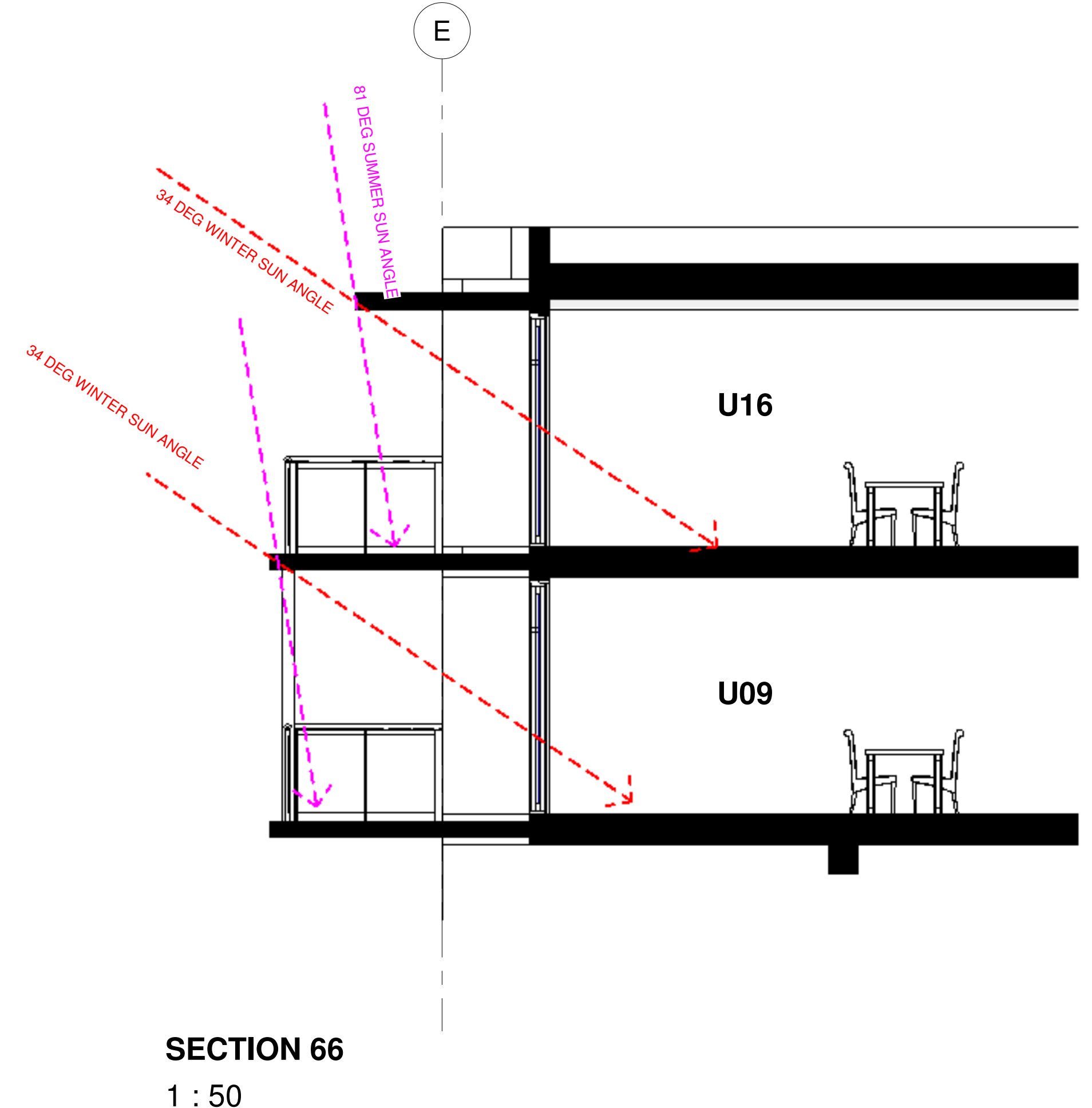




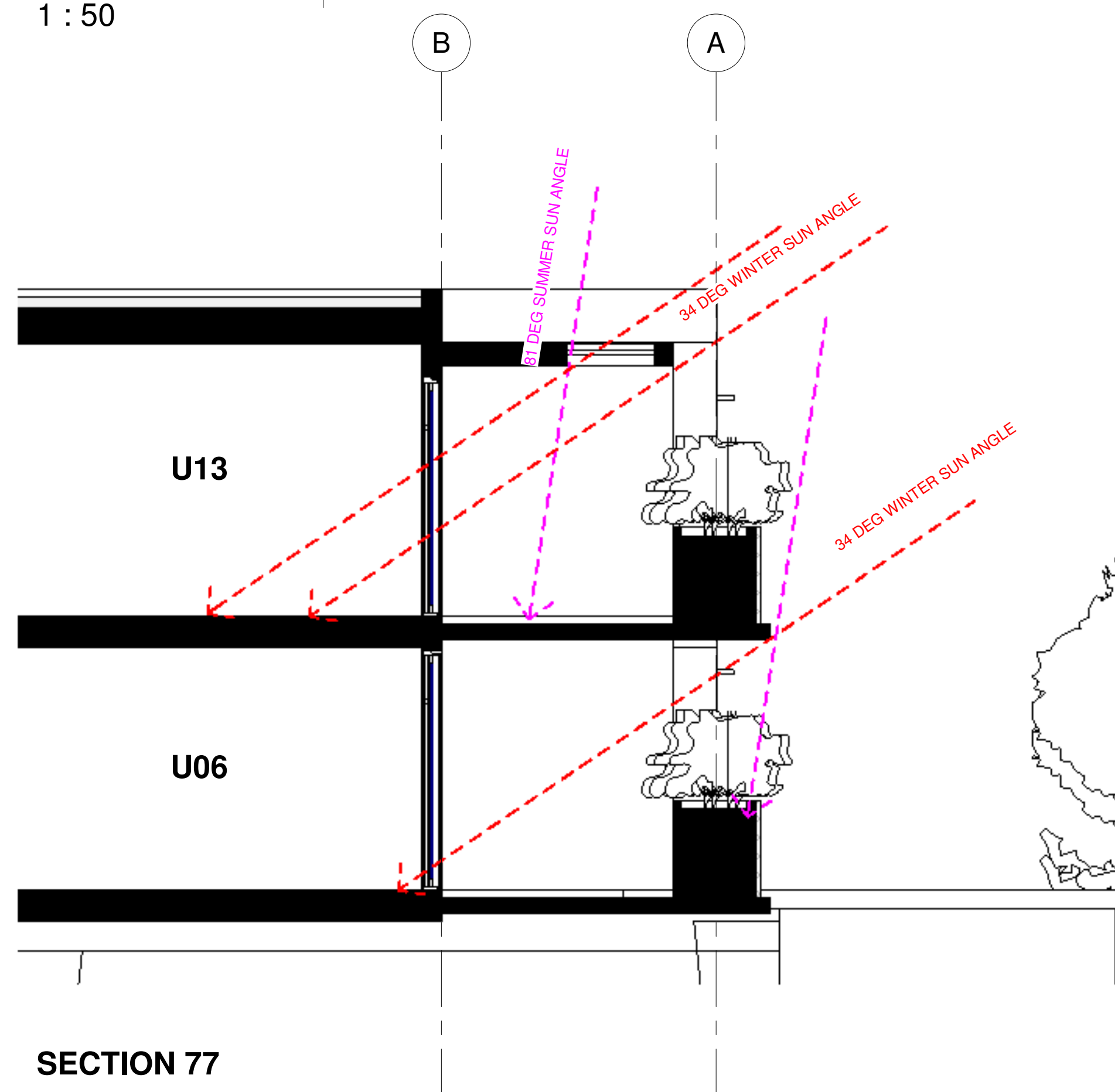
**SECTION 44**  
1 : 50



**SECTION 55**  
1 : 50



**SECTION 66**  
1 : 50



**SECTION 77**  
1 : 50



1:100 @ A1  
1:200 @ A3



**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA007  
A305

20/06/2019 2:49:00 PM

## **PROPOSED RESIDENTIAL DEVELOPMENT 8-10 BRECHIN COURT, DUNCRAIG.**

WASTE MANAGEMENT PLAN. (WMP)  
CITY OF JOONDALUP



**Submitted by**

**HARDENJONESARCHITECTS**

Suite 8-300 Rokeby Road Subiaco WA 6008  
Ph | +61 8 9380 9900  
Email | [admin@hjarchitect.com.au](mailto:admin@hjarchitect.com.au)

HJ Architects Pty Ltd ABN 33 066 326 257

Architects Board Registration 2552

**Waste Management Plan - REV E  
24 June 2019**



**CONTENTS:**

- 1. INTRODUCTION & OBJECTIVES OF THE WASTE MANAGEMENT PLAN**
- 2. SIZE AND LOCATIONS OF THE BIN STORES**
- 3. BULK WASTE**
- 4. MANAGEMENT OF THE BINS & MOVEMENT FOR COLLECTION**
- 5. LOCATION OF THE BIN STORES ON SITE**
- 6. BIN COLLECTION & WASTE SERVICE PROVIDOR**
- 7. WASTE DISPOSAL AND MANAGEMENT DURING CONSTRUCTION**
- 8. EDUCATION & ONGOING MANAGEMENT**
- 9. ANNEXURES AND REPORTS**
  - 9.1 WASTE GENERATION RATES WALGA 13/12/2018
  - 9.2 BRECHIN COURT WMP FLOOR PLAN HJA (DA003) 01/05/2019
  - 9.3 660L CAPACITY SULO BIN SULO 01/05/2019

## **1. INTRODUCTION & OBJECTIVES OF THE WASTE MANAGEMENT PLAN**

The City of Joondalup (CoJ) require a Waste Management Plan (WMP) to be included as part of a build permit application for the construction of 16 Multiple Dwellings, 3 Levels at 8-10 Brechin Court, Duncraig.

The objective of this plan is to ensure that waste management is undertaken effectively, efficiently, and sustainably during the operation of the residential complex on completion and its occupation.

In simple terms, the WMP addresses the day to day needs of the operation of the proposed residential development at 8-10 Brechin Court required to ensure that the plan can be implemented effectively.

This WMP will be incorporated into the overall strata management of the residential complex.

This WMP has been prepared in accordance with requirements of the:

**Multiple Dwelling Waste Management Plan guidelines by WALGA – July 2014.**

### **1.1 THE DEVELOPMENT PROPOSAL/WASTE GENERATION**

#### **WASTE GENERATION RATES**

Refer to Annexure - Waste Generation Rates.

<b>Dwelling Size</b>	<b>No. Units</b>	<b>General (L/week)</b>	<b>Recycling (L/fortnight)</b>	<b>Total Refuse (L/week)</b>	<b>Total Recycling (L/fortnight)</b>
<b>1 Bedroom apartment</b>	<b>3</b>	<b>80</b>	<b>40</b>	<b>240</b>	<b>120</b>
<b>2 Bedroom apartment</b>	<b>10</b>	<b>160</b>	<b>80</b>	<b>1600</b>	<b>800</b>
<b>3 Bedroom apartment</b>	<b>3</b>	<b>240</b>	<b>240</b>	<b>720</b>	<b>720</b>
<b>Total waste generation</b>				<b>2560</b>	<b>1640</b>
<b>Bins required (660L used) /week – General</b>				<b>3.87</b>	
<b>Bins required (660L used) /fortnight – Recycling</b>					<b>2.48</b>
<b>Bins provided on site – Ground Floor</b>				<b>4</b>	<b>3</b>

#### **FREQUENCY OF COLLECTION**

GENERAL BINS COLLECTED ONCE A WEEK

RECYCLING BINS COLLECTED ONCE A FORTNIGHT

Conclusion: Adequate Waste Capacity with bins to be provided.

## **2. BIN STORAGE AREA**

### **2.1 BIN STORAGE LOCATIONS, SIZE & LAYOUT**

Please refer to Annexure of this proposal for the locations of the bin stores & waste collection point and bin storage area dimensions.

### **2.2 BIN STORE CAPACITY – 20 SQM**

#### **4 x 660L (General) & 3 x 660L (Recycling) Sulo Wheel Bins**

Please refer to the attached plans for sizes of the proposed Bin Store.

- The Bin Store is designed to house 660L Sulo Type Bins.
- The enclosure is designed to for adequate movement and easy access for the bins when stored.
- Bin door tracks to be inset into slab and flush mounted for bin access.
- Bin store will have Graded Concrete Floor, MIN 100mm THK, draining to waste traps that are connected to the sewer system and NOT the soak well/storm water system.
- The Walls will be either brick or render, (solid and impervious) for easy cleaning
- Bin Store will be fitted with a Tap/Hose Cock
- The Bin Store will be Brick/Masonry Construction and will be fitted with Sliding Aluminium Screens for visual aesthetics. The screens will be a heavy duty type.
- Bin Store will be lit in accordance with the relevant Australian Standards if and where required

### **2.3 WASH DOWN AREA**

Bin enclosure to be fitted with a Tap/Hose Cock.

### **2.4 VENTILATION**

Bin enclosure to be naturally ventilated

### **2.5 VERMIN PREVENTION**

Bin enclosure to be cleaned and maintained regularly to prevent vermin infestation.

## **3. BULK WASTE**

Apartment generated bulk waste responsibility of Apartment owner/occupier. Waste removal to be coordinated by apartment owner/occupier and the City of Joondalup for collection.



#### **4. MANAGEMENT OF THE BINS & MOVEMENT FOR COLLECTION**

A Strata Company will be responsible for the overall management of the Bin stores and the movement for collection. This will include:

- The Strata Company will engage a Caretaker/Cleaner for the management of the Bins
- As part of Common Area Strata services, a Gardener will provide gardening services and maintenance to the apartment common areas. This will include Green waste removal if and when required
- Ensuring efficient use of the bins. IE, when one is full, another is used. This prevents a 'lazy' tenant and or owner simply cramming a bin to over full and will mitigate the risk of household waste overflowing on site.
- Ensuring the bins are returned to Bin Store on site once emptied by council collection, on the same day as collection.
- Separation of Materials. It is expected that owners will separate materials (which is now common practice with the advent of re-cycling). As above, the caretaker/complex maintained will ensure proper General/Recycling waste is undertaken.
- Cleaning, maintenance of the bins themselves.
- The proposed Strata Management Statement will form part of the Strata Title for this development. With copies of this WMP being distributed to the Apartment Owners.

It will incorporate this Waste Management Plan and any changes to this plan must be approved by the City of Joondalup.

#### **5. LOCATION OF THE BIN STORES ON SITE**

Bin Store is located to allow for easy access and use by the tenants/owners of the apartments. The location allows for minimum travel distance for tenants and for collection.

#### **6. BIN COLLECTION & WASTE SERVICE PROVIDER**

Bin store conveniently located in undercroft area in centre of apartment complex.

Access for rubbish disposal (by resident) outside main foyer area.

Access for rubbish removal via service ramp into driveway area for contractor/COJ collection.

Acoustic treatment and separation to Apartment 02 walls to be included as part of design development.

Development will be assessed and certified by an acoustic engineer prior to building permit being issued.

The care taker will have a key access to the Bin Store and Complex and manage it during bin collection.

## **7. WASTE DISPOSAL AND MANAGEMENT DURING CONSTRUCTION.**

During the construction period, a skip bins and a temporary compound will be will be provided on site for waste produced and serviced as required.

Some waste management contractors provide off site sorting and recycling to minimize landfill waste. These waste contractors will be selected to service during the construction phase where practical.

Sub-contractors will be responsible for presorting waste products into the appropriate bins where possible as this will reduce overall construction costs. This will be supervised by site management. Subcontractors are encouraged to use products that can be reused or easily sorted prior to landfill.

Waste water generated during wash down and clean-up of equipment used for brickwork and plastering has the potential to be high in PH and to be toxic to aquatic flora and fauna. To minimize the impacts associated with the cleanup of such equipment, the developer shall ensure that wastewaters are disposed of in accordance with DEC guidelines. This shall be communicated to all personnel during induction.

Used solvents and paints are to be stored in the site sheds/compounds provided by the lead contractor (the Builder) and removed by a licensed contractor as required.

All excess lime or cement is to be removed by the person who brought it on to site.

All subcontractors will be notified of their responsibility to maintain site cleanliness and adhere to waste management policies during construction. These obligations will be included in all subcontractor contracts.

A Construction Management and Waste Management Plan will be provided by the Lead Contractor prior to the Building Permit being issued.

## **8. EDUCATION & ONGOING MANAGEMENT**

Instructions on waste management are to be provided to the care taker/building manager for ongoing management and maintenance.

## **9. ANNEXURES AND REPORTS**

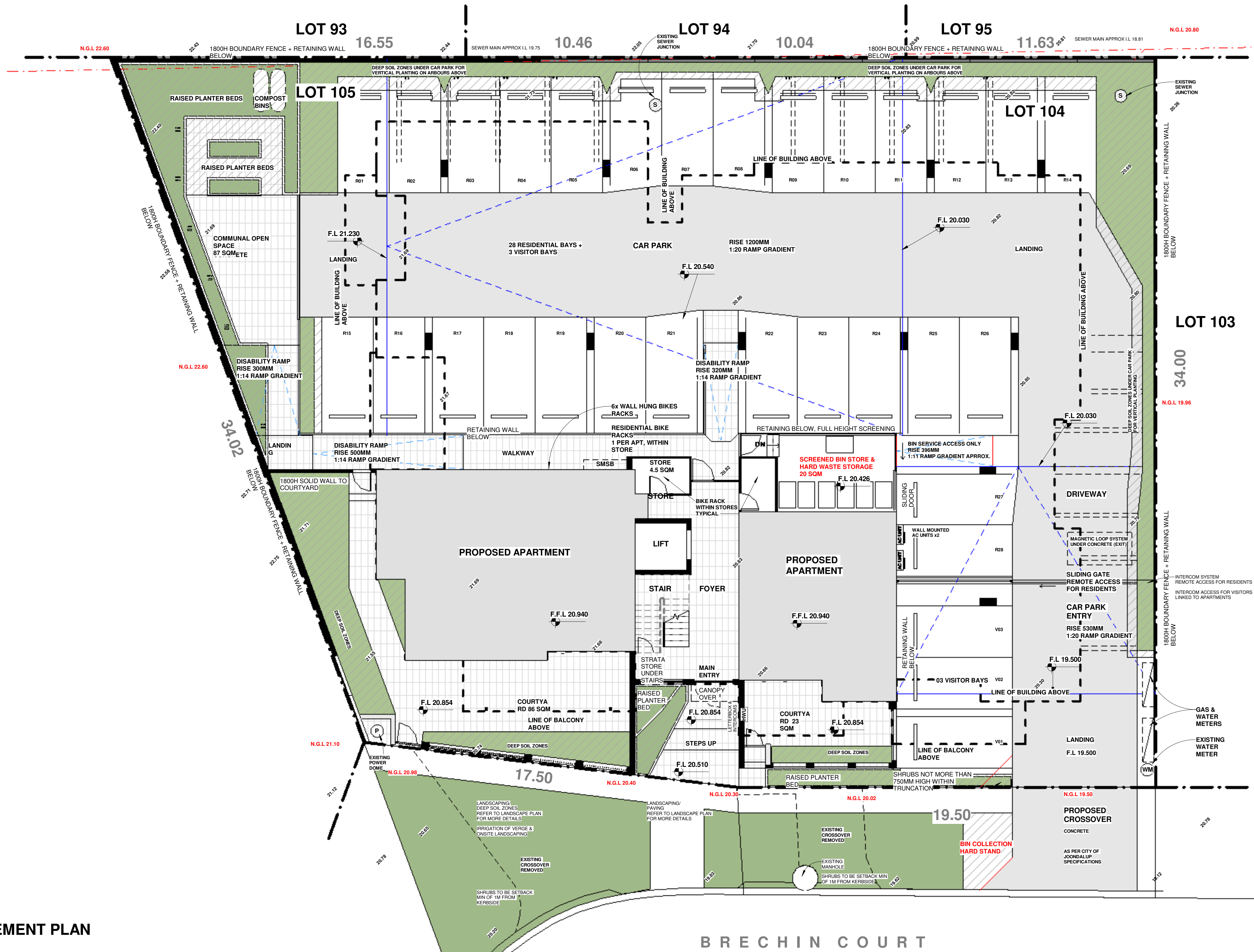
9.1 WASTE GENERATION RATES	WALGA	13/12/2018
9.2 BRECHIN COURT WMP FLOOR PLAN	HJA (DA003)	01/05/2019
9.3 660L CAPACITY SULO BIN	SULO	01/05/2019

WASTE MANAGEMENT PLAN

1 : 100



1:100 @ A1  
1:200 @ A3



**ZEGNA**  
BUILDING  
Zegna Pty Ltd Reg No. 14275  
Suite 4 - 116 Mounts Bay Road Perth WA 6000  
office (08) 6558 0528 mobile 0412 088 812  
email info@zegna.net.au zegna.net.au

**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA006  
A206  
6/06/2019 4:07:43 PM





# Transport Impact Statement

Project:	8-10 Brechin Court, Duncraig Proposed Residential Apartments
Client:	Zegna Pty Ltd c/o: Harden Jones Architects
Author:	Keli Li
Version:	2
Document #	1812004-TIS-001

CONSULTING CIVIL AND TRAFFIC ENGINEERS  
1 ST. FLOOR, 908 ALBANY HIGHWAY, EAST VICTORIA PARK WA 6101.  
PHONE|+61 8 9355 1300  
FACSIMILE| +61 8 9355 1922  
EMAIL| admin@shawmac.com.au





## Document Status

Version	Document Status	Prepared By	Reviewed By	Approved By	Date
1	Client Review	K Li	L Dawson	L Dawson	07/12/2018
2	Design Update	K Li	L Dawson	L Dawson	04/06/2019

## Contents

1.	Summary.....	1
2.	Introduction .....	2
2.1.	Background.....	2
2.2.	Site Location .....	2
2.3.	Reference Information .....	3
3.	Site Proposal.....	4
3.1.	Land Use.....	4
3.2.	Planning Framework .....	4
3.3.	Major Attractors and Generators of Traffic.....	4
4.	Existing Situation.....	5
4.1.	Existing Roads .....	5
4.2.	Road Hierarchy vs Actual Flows .....	6
4.3.	Changes to the Surrounding Network.....	6
5.	Transport Assessment .....	7
5.1.	Assessment Years .....	7
5.2.	Time Periods for Assessment .....	7
5.3.	Development Generation .....	7
5.4.	Distribution .....	8
5.5.	Impact on Roads .....	9
5.6.	Impact on Intersections .....	9
6.	Public Transport.....	10
6.1.	Existing Public Transport Services.....	10
7.	Pedestrian and Cycle Networks .....	11
7.1.	Existing Cycle and Pedestrian Networks and Facilities.....	11
8.	Parking.....	12



---

8.1.	Parking Provision .....	12
8.2.	Parking Layout .....	12
9.	Site Access .....	13
9.1.	Vehicle Accesses .....	13
9.2.	Service Vehicles .....	13
9.3.	Access Vehicle Sight Distance .....	13
9.4.	Access Pedestrian Sight Distance .....	14
10.	Site Specific or Safety Issues .....	15
10.1.	Crash History .....	15
11.	Conclusion .....	16
Appendix A - Site Layout .....		17
Appendix B - Traffic Count .....		21
Appendix C – Swept Path Diagrams .....		24

## Tables

Table 1 - Road Classification and Indicative Traffic Volumes.....	6
Table 2 - Predicted Weekday Trip Generation .....	7
Table 3 - Car Parking Requirements .....	12
Table 4 - AS 2890.1 Standard Parking Bay Dimensions .....	12
Table 5 - Crash History.....	15

## Figures

Figure 1 - Site Location .....	2
Figure 2 - Aerial View .....	3
Figure 3 - Zoning Map - Extract from City of Joondalup LPS3 .....	4
Figure 4 - Road Hierarchy .....	5
Figure 5 - Traffic Distribution for Site Traffic.....	8
Figure 6 - Public Transport Network.....	10
Figure 7 - Existing Pedestrian and Cyclist Facilities .....	11
Figure 8 - Sight Distance Requirements.....	13
Figure 9 - AS 2890.1 Requirements for Pedestrian Sight Lines .....	14



## 1. Summary

---

Shawmac was commissioned to assess the traffic impacts associated with parking, access and traffic generation from the proposed residential apartments located at 8-10 Brechin Court, Duncraig.

This Transport Impact Statement has been prepared in accordance with the WAPC Transport Impact Assessment Guidelines for Developments: Volume 4 – Individual Developments (2016), for lodgement with the Development Application to the City of Joondalup.

The following conclusions have been made in regards to the proposed development:

- The surrounding roads and intersections can accommodate the predict increase in traffic from the proposed development;
- The supply of car parking spaces and operation of the facility is considered adequate to accommodate the parking demand;
- The proposed parking layout is generally compliant with AS2890.1 and the small section of narrowed blind aisle will not affect vehicles manoeuvring into and out of the car bay adjacent to the blind aisle;
- The site is well serviced by public transport with train and bus station accessible within walking distance from the site;
- The existing pedestrian/cyclist infrastructure in the vicinity of the site is considered to be adequate to facilitate the safe movement of pedestrians and cyclists around the proposed development; and
- The location and dimension of the proposed access is considered acceptable and no adverse impacts and safety issues associated with the access are identified.

## 2. Introduction

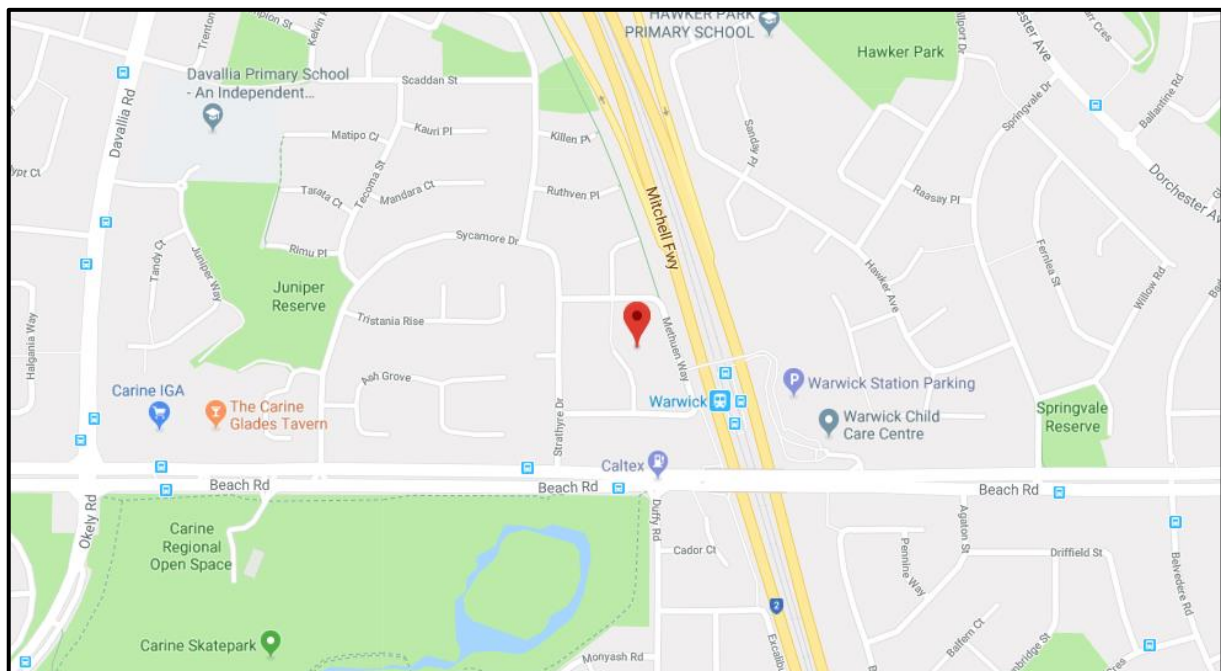
### 2.1. Background

Shawmac has been commissioned to prepare a Transport Impact Statement to assess the potential traffic impacts, car parking and access issues associated with the proposed residential apartment building to be located at 8-10 Brechin Court, Duncraig, in the City of Joondalup.

The proposed development is a three-storey residential apartment building. The proposed site plan is shown in **Appendix A**.

### 2.2. Site Location

The site is located as shown in **Figure 1**.



**Figure 1 - Site Location**

The subject site currently developed as two detached residential houses as shown in the aerial view in **Figure 2**.



**Figure 2 - Aerial View**

## **2.3. Reference Information**

In undertaking the study, the information listed below was referenced.

- WAPC Transport Impact Assessment Guidelines for Developments: Volume 5 – Individual Developments
- MRWA Functional Hierarchy Criteria;
- Livable Neighbourhoods Guidelines 2009;
- Australia Standard AS 2890.1-2004 Parking Facilities - Off-street Car Parking;
- Trip Generation 9th edition, 2003 - Institute of Transportation Engineers, Washington, USA;
- Guide to Traffic Generating Developments Version 2.2, October 2002 – Roads and Traffic Authority, New South Wales;
- City of Joondalup Town Planning Scheme No.3.

### 3. Site Proposal

#### 3.1. Land Use

It is proposed to develop the site as a 16-unit residential apartment building with a 31-bay carpark.

#### 3.2. Planning Framework

The subject site is zoned for “Residential” R20/60 as per City of Joondalup zoning scheme.

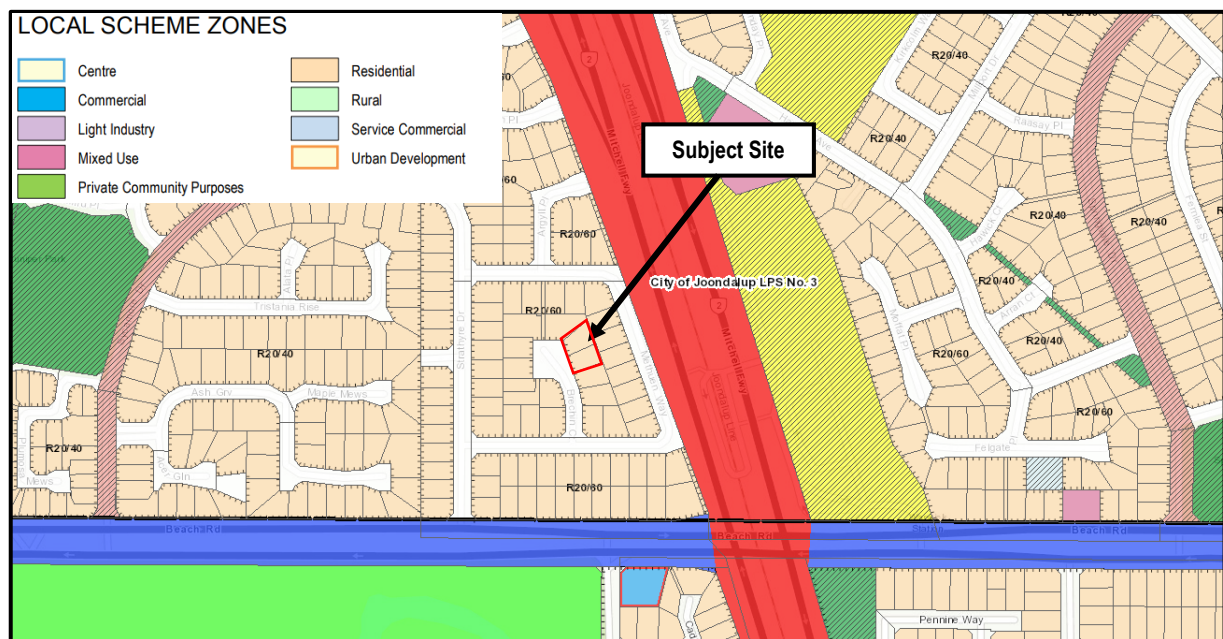


Figure 3 - Zoning Map - Extract from City of Joondalup LPS3

#### 3.3. Major Attractors and Generators of Traffic

The development site is mainly a traffic generator. The main generator expected to influence traffic flows are likely to be to and from local centres and primary distributor roads.



## 4. Existing Situation

### 4.1. Existing Roads

An extract of the Main Roads *Road Information Mapping* web tool (**Figure 4**) shows the road hierarchy surrounding the site.



Figure 4 - Road Hierarchy

#### Brechin Court

Brechin Court is the western boundary of the site. It is a two-way, single carriageway cul-de-sac. Brechin Court is classified as an Access Road under the MRWA Functional Road Hierarchy. Brechin Court operates with a 50km/h speed limit.

#### Methuen Way and Strathyre Drive

Methuen Way and Strathyre Drive are both Access Roads in the vicinity. Both Methuen Way and Strathyre Drive are two-way, single carriageway road. Methuen Way intersects Strathyre Drive via a full movement T-junction and Strathyre Drive intersects Beach Road via a left-in-left-out intersection. The Methuen Way-Strathyre Drive route provides the most convenient connection from the proposed site to higher hierarchy roads (Beach Road). Methuen Way and Strathyre Drive both operate with a 50km/h speed limit.

## Sycamore Drive

Sycamore Drive connects to the northern end of Strathyre Drive and loops back to intersect Beach Road west of Strathyre Drive / Beach Road intersection. As Strathyre Drive / Beach Road intersection is a left-in-left-out intersection, westbound vehicles from the site will utilise Sycamore Drive / Beach Road intersection. Sycamore Drive operates with a 50km/h speed limit.

## Beach Road

Beach Road is a District Distributor A Road located approximately 150m south of the site. Beach Road operates with a 70km/h speed limit.

### 4.2. Road Hierarchy vs Actual Flows

The latest traffic volumes of surrounding roads were derived from the City of Joondalup and the latest MRWA SCATS data (October 2018). Detailed traffic count data is included in **Appendix B**. Traffic data for Brechin Court and Methuen Way are not available from the City of Joondalup. Based on the residential density, it is assumed that Brechin Court and Methuen Way carry 1,000 vpd and 200 vpd respectively.

**Table 1** compares existing traffic volumes with MRWA and Liveable Neighbourhood Guideline indicative traffic volumes based on road classifications.

**Table 1 - Road Classification and Indicative Traffic Volumes**

Road Name	Road Features	MRWA Classification / Indicative Daily Volume (vpd)	Liveable Neighbourhood Classification / Indicative Daily Volume (vpd)	Daily Traffic Volume	Source
Brechin Court	Two-way single-carriageway	Access Road / >3,000	Access Street D / 1,000	200	Assumed
Methuen Way	Two-way single-carriageway	Access Road / >3,000	Access Street C / 3,000	1,000	Assumed
Strathyre Drive	Two-way single-carriageway	Access Road / >3,000	Access Street C / 3,000	624	City of Joondalup
Sycamore Drive	Two-way single-carriageway	Access Road / >3,000	Access Street C / 3,000	800	Assumed
Beach Road	Four-lane dual carriageway	District Distributor A / >8,000	Integrator Arterial A / <25,000	14,938	MRWA SCATS (2018)

As shown, all roads are operating near their indicative traffic flow ranges for their respective classifications.

### 4.3. Changes to the Surrounding Network

There are no known changes to the adjacent network that have the potential to affect the assessment.



## 5. Transport Assessment

### 5.1. Assessment Years

The development is assessed based on current network conditions. Given the surrounding road network being predominantly established, the current network conditions should be representative of 10 year after full opening.

### 5.2. Time Periods for Assessment

The time periods adopted for assessment are the peak hours on the adjacent road network (8:00-9:00 and 17:00-18:00), as these represent the worst-case conditions on the wider road network.

### 5.3. Development Generation

In order to estimate the impact of traffic generated by the proposed development reference was made to the Institute of Transportation Engineers "Trip Generation" 9<sup>th</sup> edition and WAPC Transport Impact Assessment Guideline. The trip generation has been determined for both daily and peak hour. Predicted trip generation are summarised in **Table 2**.

**Table 2 - Predicted Weekday Trip Generation**

Land Use	Units	Quantum	Trip Generation Rate			Estimated Generation			Source
			ADT	AM Peak	PM Peak	ADT	AM Peak	PM Peak	
Residential	No. of Dwellings	16	6.59	0.8	0.8	105	13	13	ITE/WAPC
<b>Total (round-up)</b>						<b>105</b>	<b>13</b>	<b>13</b>	

It is estimated that the proposed development will generate an additional 105 vehicle movements per day with 13 during weekday AM and PM peak hours.





### **5.5. Impact on Roads**

The site generated traffic is considered low (13 vehicles movement during peak hours) and the road network is considered to have sufficient capacity to accommodate the generated traffic to from the proposed development.

### **5.6. Impact on Intersections**

A general guide from WAPC Transport Impact Assessment Guideline indicates the following:

- An increase in traffic of less than 10% of capacity would not be likely to have a material impact on any particular section of road; and
- An intersection would generally be considered to be materially affected if flows on any leg increase by more than 10% or any individual movement by more than 20%.

Based on the predicted traffic distribution, additional traffic volume distributed to the most affected intersection (Beach Road / Strathyre Drive intersection and Beach Road / Sycamore Drive intersection) will be less than 13 vehicle per hour. This is within the standard deviation of traffic volumes turning at the intersection and therefore does not warrant capacity assessment. Therefore, intersections in the vicinity are considered to have sufficient capacity to cater for the projected increase in traffic.





## 7. Pedestrian and Cycle Networks

### 7.1. Existing Cycle and Pedestrian Networks and Facilities

Existing pedestrian and cycle facilities in the general vicinity of the site are shown in **Figure 7**. There are no on-road and off-road footpath and bicycle facilities on Brechin Court, Methuen Way and Strathyre Drive, these roads create an attractive network of low-speed, low volume streets which will support active transport connections to and from the site. The most pedestrian route from the site would be travelling to and from Warwick Train Station. A pedestrian overpass has been constructed over Michell Freeway to connect the station and Methuen Way.

It can be concluded that the existing facilities are sufficient to service the proposed development.

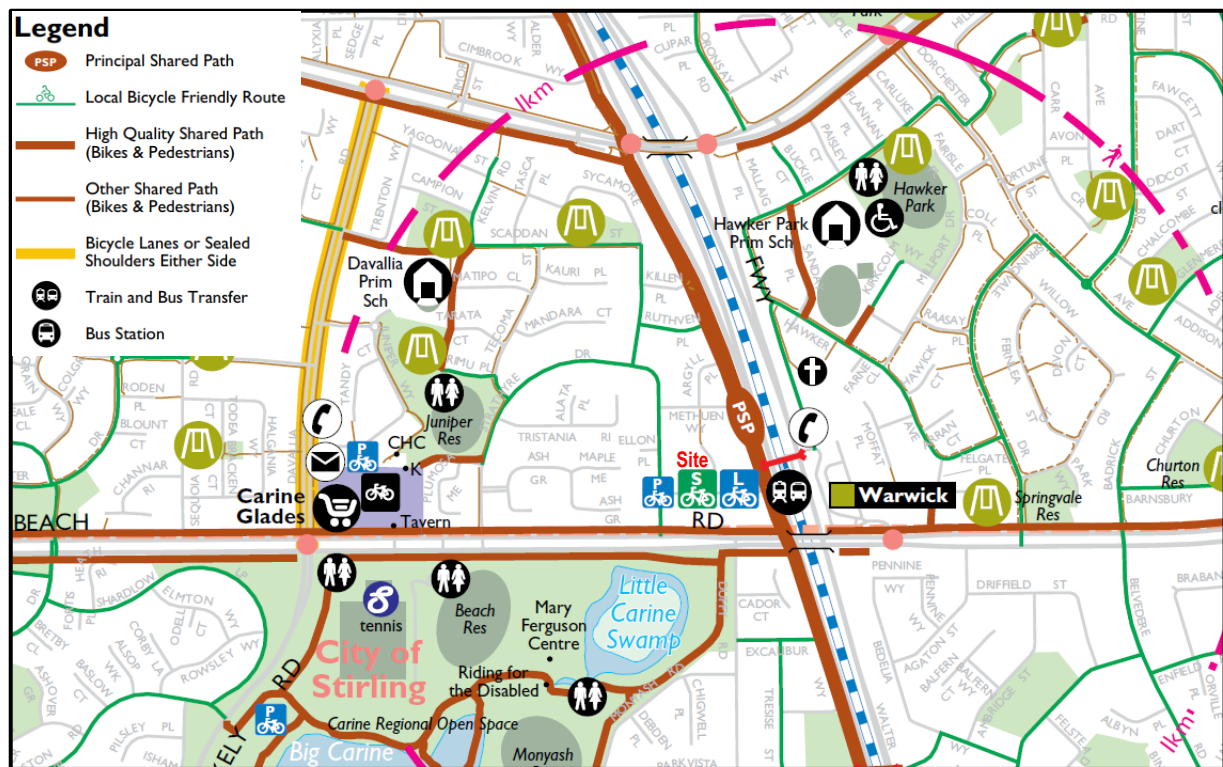


Figure 7 - Existing Pedestrian and Cyclist Facilities

## 8. Parking

### 8.1. Parking Provision

The City of Joondalup Local Planning Scheme No. 3 refers to the WAPC Residential Design Codes (R-Codes) for parking requirements for residential development. Under the R-Codes, the proposed apartment development requires a minimum of 16 bays for residents and 4 bays for visitors. The parking requirements and provision are outlined in **Table 3**.

**Table 3 - Car Parking Requirements**

Land Use	Parking Rate	Quantum	Minimum Parking Requirement	Parking Provision
Residential	1 bay per 1-2 bedrooms dwelling	13 x 1-2 bed dwellings	17	28
	1.25 bay per 3+ bedrooms dwelling	3 x 3-bed dwellings		
Residential Visitor	1 bay per 4 dwelling required	16 dwellings	4	3
<b>Total</b>			<b>21</b>	<b>31</b>
<b>Bike Storage</b>				
Residential	1 per 3 dwellings	16 dwellings	6	16
Residential Visitor	1 per 10 dwellings	16 dwellings	2	2
<b>Total</b>			<b>8</b>	<b>18</b>

The development satisfies the requirements for residents' car parking and bike storage; however, it indicates a shortfall of one visitor bay. The shortfall of one visitor bay is considered negligible given that the unrestricted street parking of the adjacent access roads provides additional short-term parking capacity.

### 8.2. Parking Layout

The standard bay dimensions for a Class 1A car parking facility according to AS2890.1 (Residential, domestic and employee parking) is shown in **Table 4**.

**Table 4 - AS 2890.1 Standard Parking Bay Dimensions**

Category	Clause	Dimension Required	Dimension Provided	Compliant
Ninety Degree Bays	AS2890.1 - Figure 2.2	5.4 x 2.4 x 5.8m aisles.	5.4 x 2.4x 5.8m aisles. (Minimum dimension)	Yes
Parallel Parking Bays	AS2890.1 - Figure 2.5	6.2 x 2.1 (3.6m aisle)	6.2 x 2.4 (3.6m aisle) (Minimum dimension)	Yes
Blind Aisle Extension	AS2890.1 - 2.4.2c	1.0m	1.0m	Yes
Additional space for bays against a wall of fence	AS2890.1 - 2.4.2d	0.3m	0.3m	Yes

Based on the site plan provided, the dimensions of the proposed standard bays comply with the Australian Standards requirements. A Swept path analysis has been undertaken and the analysis indicates satisfactory manoeuvring in and out of the bay adjacent to the blind aisle. Swept path diagrams are attached in **Appendix C**.

## 9. Site Access

### 9.1. Vehicle Accesses

The City of Joondalup Crossover Specification sets out the requirements for crossovers. For multiple dwelling driveways, the specification requires:

- Only one single driveway servicing multiple dwelling development is provided per street or right-of-way frontage; and
- No driveway is wider than 6.0m at the street boundary.

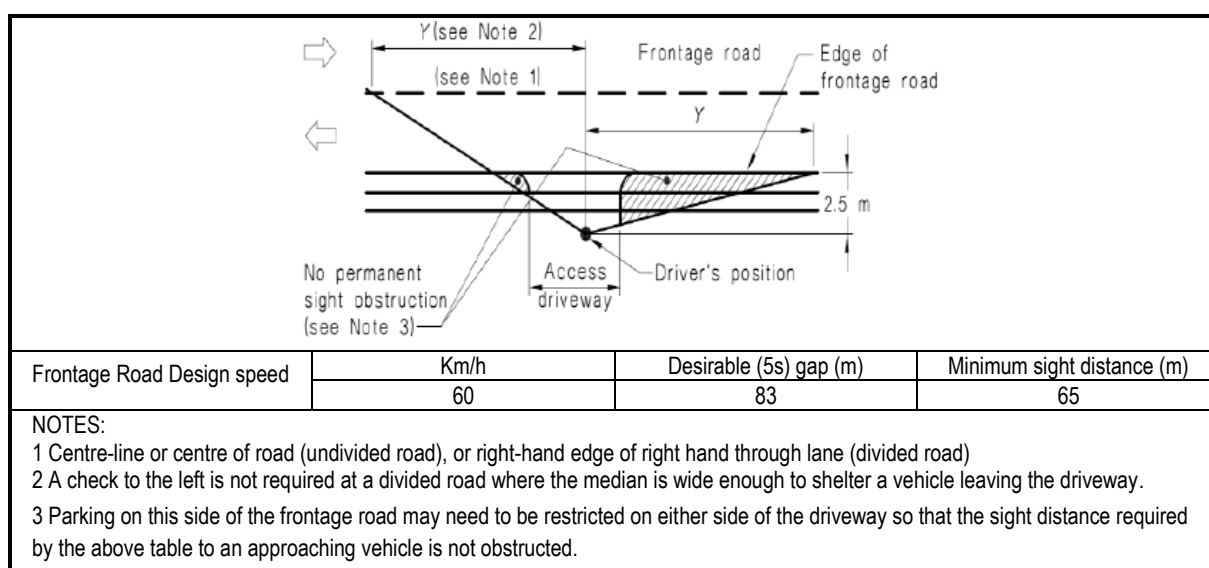
The development has one two-way crossover with a 5.8m width at the property boundary which is compliant with the City of Joondalup requirements.

### 9.2. Service Vehicles

Waste collection will be managed onsite via a hardstand area adjacent to the crossover which is designated for bin placing. Waste collection vehicle will block half of the crossover during collection. Cars can still manoeuvre around the waste truck during collection time. It is recommended that rubbish collection takes place outside of peak hours to reduce conflict. General deliveries can use visitor car bays in the carpark.

### 9.3. Access Vehicle Sight Distance

Sight distance from the car park egress along the street is defined in Figure 3.2 of AS2890.1 which is reproduced in **Figure 8**. A desktop review concluded that the minimum sight distance is achieved for the crossover.

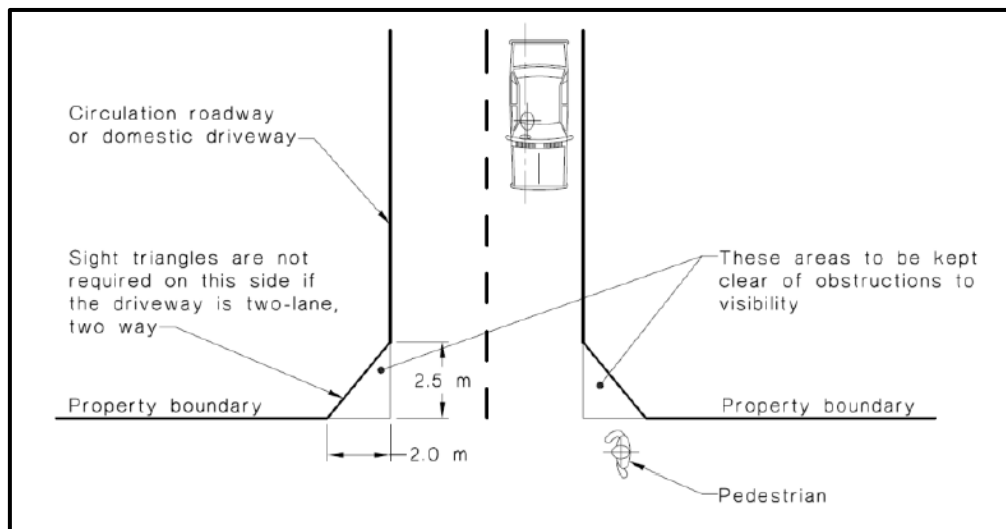


**Figure 8 - Sight Distance Requirements**



#### 9.4. Access Pedestrian Sight Distance

The Australian Standard AS2890.1:2004 also provides details for sight lines and distances for pedestrian movements across an access to a car park. Those details are shown in the AS2890.1 Figure 3.3 extract on **Figure 9**.



**Figure 9 - AS 2890.1 Requirements for Pedestrian Sight Lines**

The site plan does not indicate any sight line obstructions at the vehicle access. It is concluded that minimum required pedestrian sight distance is achievable.

## 10. Site Specific or Safety Issues

### 10.1. Crash History

Crash data for surrounding roads were sourced from MRWA Crash Analysis Reporting System (CARS) for the 5-year period ending 31/12/2017 and the report indicated no crashes over the 5-year period. The report is summarised in **Table 5**.

**Table 5 - Crash History**

Location	Number of Crashes	MR Nature	Severity
Brechin Court SLK 0.00 (Methuen Way) to 0.11 (End Road)	0	N/A	N/A
Methuen Way SLK 0.00 (Strathyre Drive) to 0.46 (Brechin Court)	1	1 "Hit Animal"	1 "Property Damage - Minor"
Strathyre Drive SLK 0.00 (Beach Road) to 0.09 (Methuen Way)	0	N/A	N/A
Strathyre Drive / Beach Road Intersection	1	1 "Other/Unknown"	1 "Property Damage - Major"

As the proposed development is only predicted to generate a small number of vehicle movements, traffic generated from the site is unlikely to alter the existing crash pattern.



## 11. Conclusion

---

Based on the assessment of traffic generation it is predicted that there will be no unacceptable impact on the adjacent road segments.

With respect to the proposed residential apartment, the following is concluded;

- The surrounding roads and intersections can accommodate the predict increase in traffic from the proposed development;
- The supply of car parking spaces and operation of the facility is considered adequate to accommodate the parking demand;
- The proposed parking layout is generally compliant with AS2890.1 and the small section of narrowed blind aisle will not affect vehicles manoeuvring into and out of the car bay adjacent to the blind aisle;
- The site is well serviced by public transport with train and bus station accessible within walking distance from the site;
- The existing pedestrian/cyclist infrastructure in the vicinity of the site is considered to be adequate to facilitate the safe movement of pedestrians and cyclists around the proposed development; and
- The location and dimension of the proposed access is considered acceptable and no adverse impacts and safety issues associated with the access are identified.

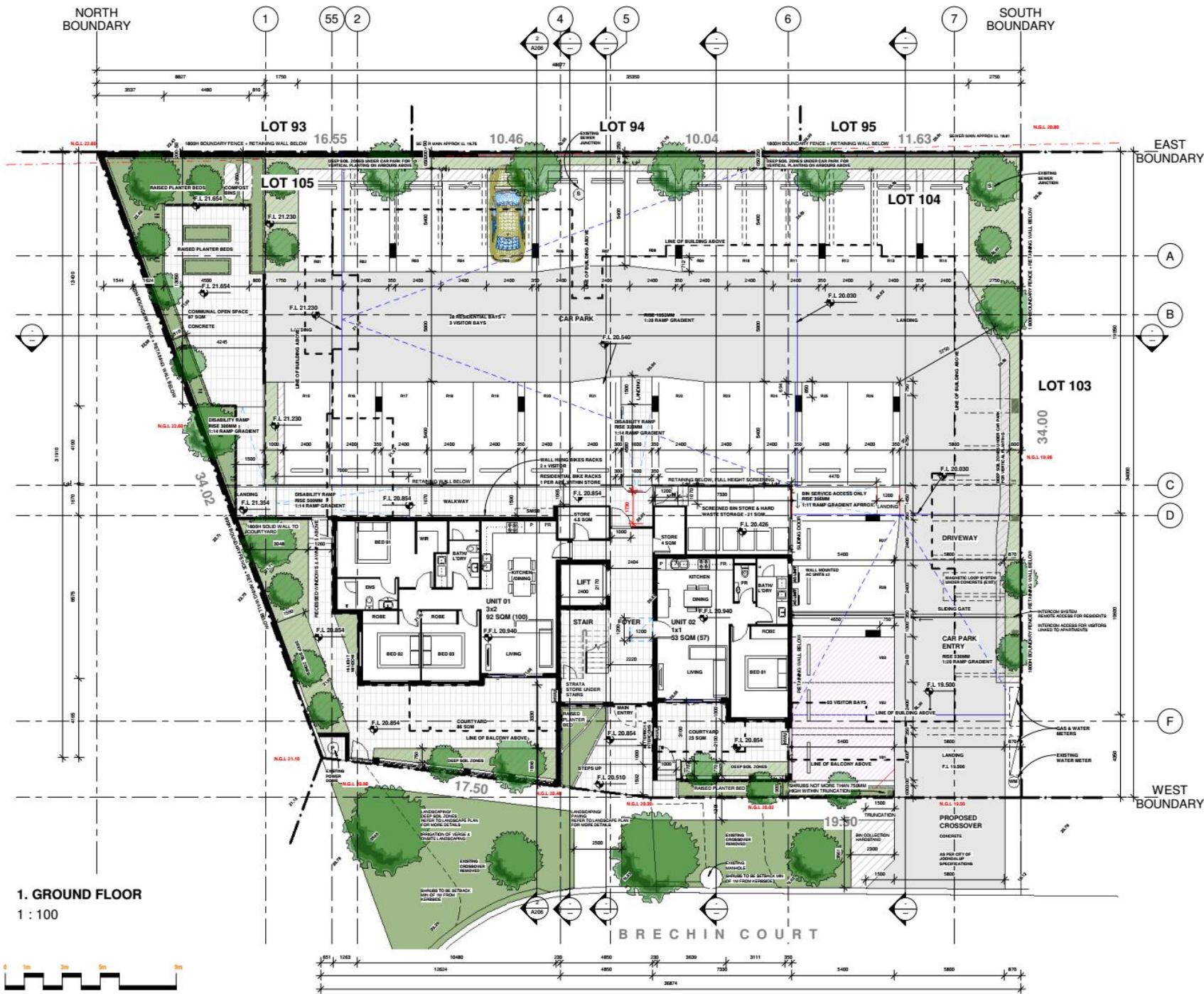


---

## Appendix A - Site Layout

---





CAR PARKING (LOCATION A)	
28 RESIDENTIAL BAYS + 3 VISITOR BAYS	
1 BAY PER	1x1 APARTMENT
2 BAYS PER	2x2 APARTMENT
	3x2 APARTMENT
BIKE PARKING	
WALL HUNG BIKES RACKS	2 x VISITOR
RESIDENTIAL BIKES RACKS	1 PER APT. WITHIN STORE
BIN ENCLOSURE & HARD WASTE STAND - 21 SQM	
GENERAL	
660L LITERS SULO BINS x 4	
RECYCLING	
660L LITERS SULO BINS x 3	
COMC FLOOR & F/W	
DRAIN TO SEWER SYSTEM. TAP FOR WASH DOWN. H & C WATER REQUIRED.	
WASTE & RECYCLING BINS CALCS AS PER WALGA MULTIPLE DWELLING WASTE MANAGEMENT PLAN GUIDELINES	
BIN DOOR TRACKS TO BE INSET INTO SLAB FLUSH MOUNTED FOR BIN ACCESS	

**ZEGNA**  
BUILDING  
Zegna Pty Ltd Reg No. 14275  
Suite 4 - 116 Mounts Bay Road Perth WA 6000  
office (08) 6558 0528 mobile 0412 088 812  
email info@zegna.net.au zegna.net.au

**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA005  
A201  
27/05/2019 3:52:53 PM

NORTH  
BOUNDARY

SOUTH  
BOUNDARY

EAST  
BOUNDARY

WEST  
BOUNDARY

2. FIRST FLOOR  
1:100



1:100 @ A1  
1:200 @ A3

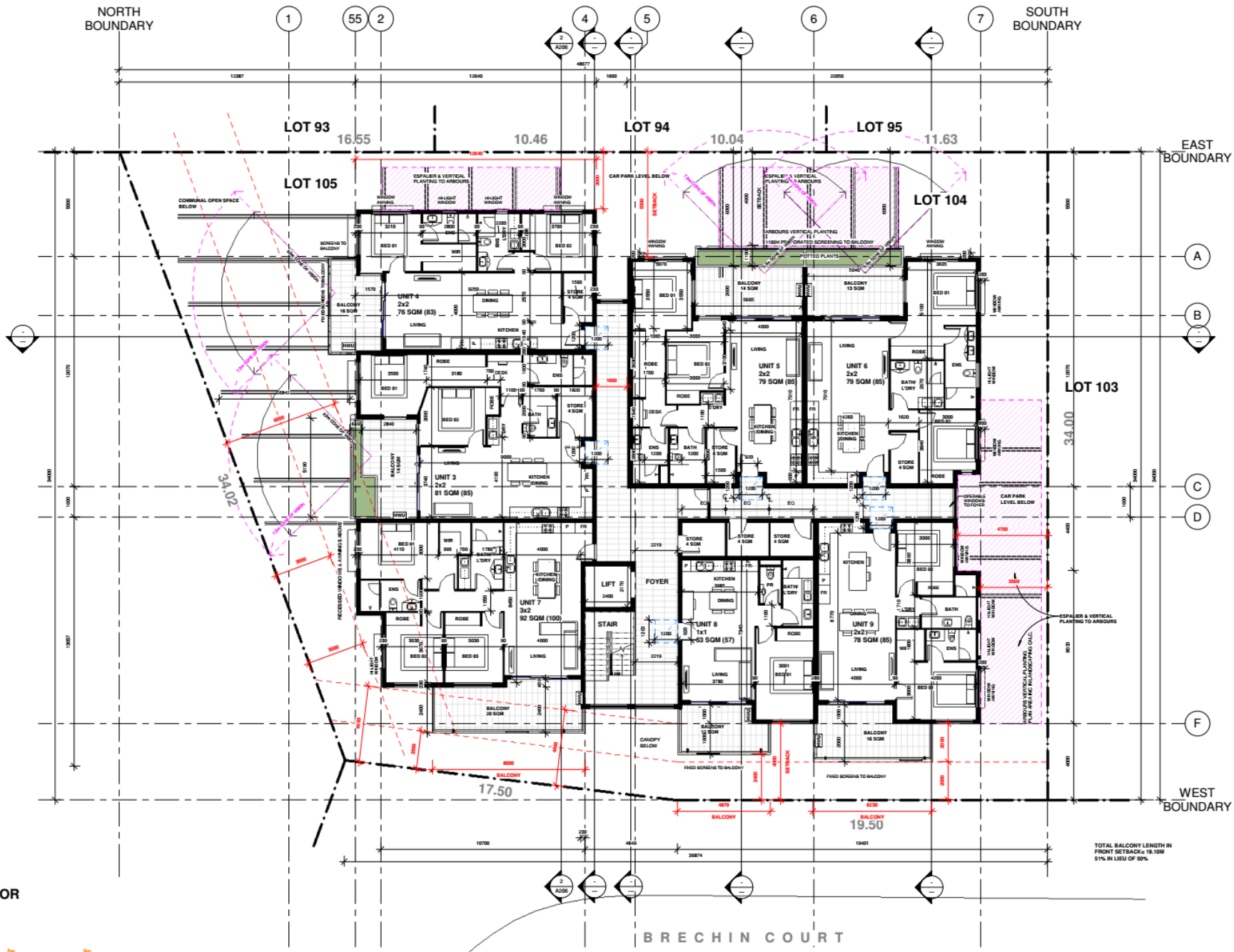


**ZEGNA**  
BUILDING  
Zegna Pty Ltd Reg No. 14275  
Suite 4 - 116 Mounts Bay Road Perth WA 6000  
office (08) 6558 0528 mobile 0412 088 812  
email info@zegna.net.au zegna.net.au

**HARDENJONESARCHITECTS**  
www.hjarchitect.com.au

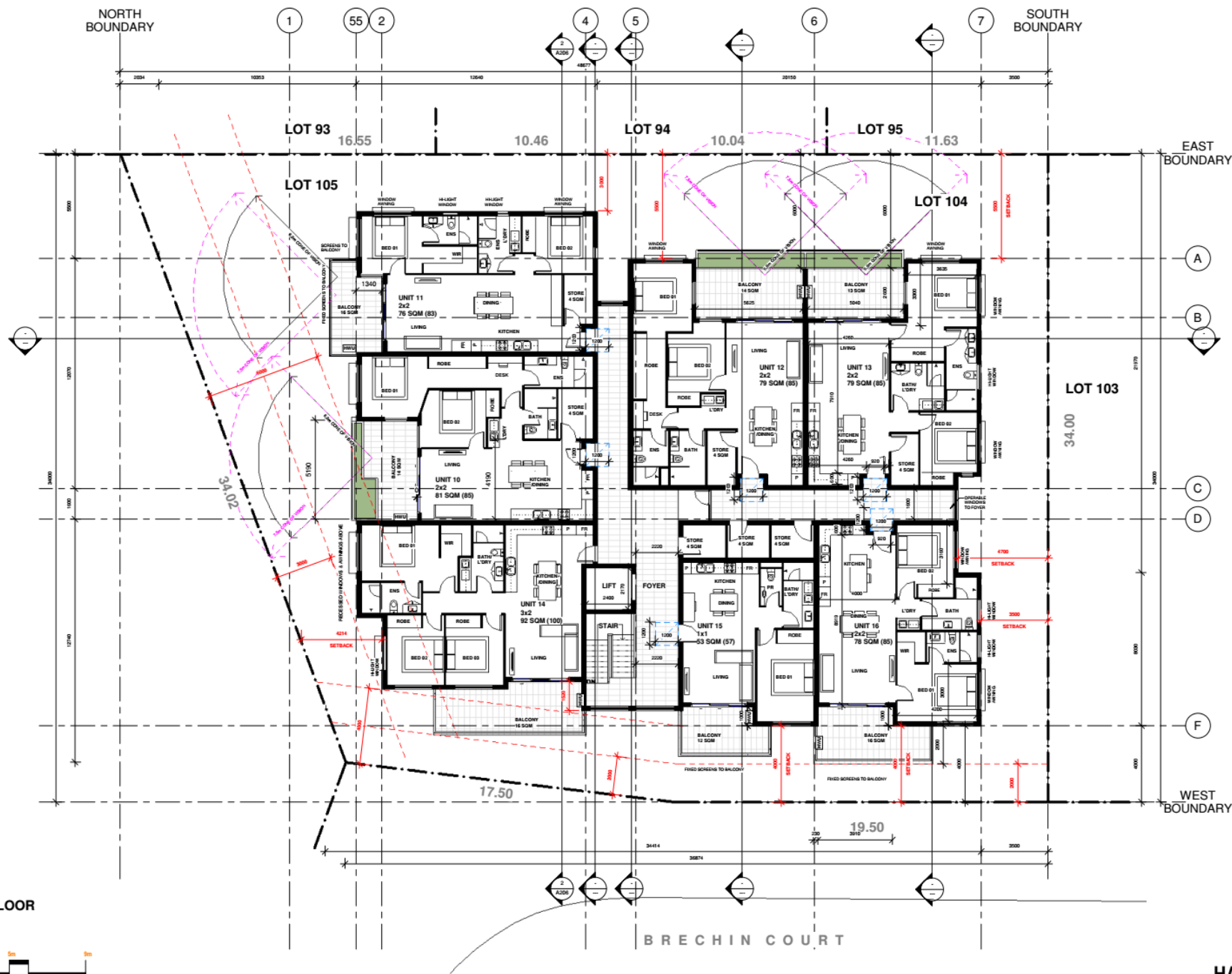
8-10 BRECHIN COURT, DUNCRAIG  
JDAP SUBMISSION - DA005  
A202

27/05/2019 3:52:57 PM



TOTAL BALCONY LENGTH IN  
FRONT SETBACK: 19.50M  
51% IN LIEU OF 50%





3. SECOND FLOOR  
1 : 100



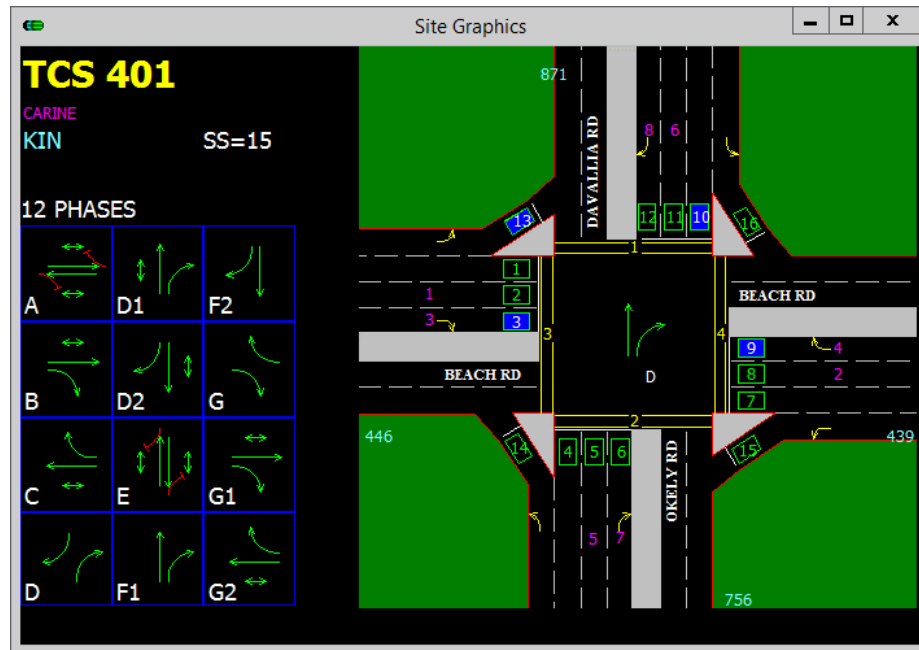


---

## Appendix B - Traffic Count

---





Average Hourly Volume from (Monday 22<sup>nd</sup> October to Friday 26<sup>th</sup> October 2018)

fe

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1:00	6	4	1	1	0	4	6	4	2	0	0	0	0	3	4	3	40
2:00	2	1	0	1	0	1	2	2	1	0	0	1	0	2	2	2	18
3:00	1	1	0	1	0	0	2	1	2	0	0	0	0	2	1	2	13
4:00	1	2	1	1	1	1	2	1	1	1	1	0	0	1	4	2	20
5:00	6	3	6	2	2	4	8	2	5	2	4	1	0	1	8	7	61
6:00	58	24	15	5	6	20	25	12	10	10	15	2	0	2	30	24	260
7:00	129	73	49	20	9	38	70	37	26	30	39	10	0	10	118	63	720
8:00	228	211	111	45	22	77	103	73	52	94	125	29	0	21	181	151	1522
9:00	240	231	89	83	51	156	157	132	80	111	162	59	0	41	280	168	2039
10:00	192	132	58	50	33	109	129	93	66	60	66	49	0	35	122	127	1321
11:00	180	106	40	54	30	96	140	93	78	51	52	59	0	34	117	111	1242
12:00	178	93	34	54	32	105	152	119	78	48	49	69	0	43	109	102	1266
13:00	162	79	28	58	30	111	151	103	79	46	51	65	0	49	113	103	1228
14:00	159	86	26	57	32	103	140	96	77	38	43	62	0	39	116	92	1166
15:00	184	105	35	79	40	122	180	139	96	47	67	78	0	60	165	103	1501
16:00	227	183	45	159	78	215	207	169	113	69	102	107	0	82	181	168	2107
17:00	199	159	46	174	94	189	238	233	140	68	69	95	0	94	212	164	2173
18:00	179	132	37	179	91	188	238	246	166	69	80	110	0	119	200	141	2175
19:00	153	100	28	84	39	145	178	164	103	45	58	77	0	75	156	102	1508
20:00	107	54	18	42	17	68	97	69	60	27	34	45	0	36	87	59	822
21:00	72	39	11	26	7	37	75	41	41	12	21	23	0	23	47	36	512
22:00	49	23	7	20	5	32	46	22	23	7	12	13	0	21	32	22	335
23:00	30	15	3	10	2	16	33	21	14	4	7	6	0	13	23	13	212
24:00:00	15	7	2	4	2	9	17	9	7	2	3	4	0	6	13	7	106
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Daily	2758	1864	691	1210	623	1846	2397	1882	1321	843	1062	964	964	814	2324	1770	
AM	240	231	89	83	51	156	157	132	80	111	162	59	110	41	280	168	
PM	179	132	37	179	91	188	238	246	166	69	80	110	59	119	200	141	



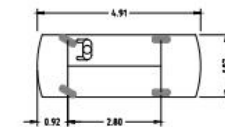




---

## Appendix C – Swept Path Diagrams

---



**B85 VEHICLE (REALISTIC MIN RADIUS)**  
 OVERALL LENGTH 4.91m  
 OVERALL WIDTH 1.87m  
 OVERALL BODY HEIGHT 1.42m  
 MIN BODY GROUND CLEARANCE 0.16m  
 TRACK WIDTH 1.77m  
 LOCK-TO-LOCK TIME 4.85sec  
 KERB-TO-KERB TURNING RADIUS 5.75m



# LEGEND

- STANDARD B85 TURNING TEMPLATE FORWARD MOVEMENT
- STANDARD B85 TURNING TEMPLATE REVERSE MOVEMENT

SCALE 1:125  
 A 1

REV	DATE	DESCRIPTION	APPROVED
B	05.12.18	ISSUED FOR REVIEW	LD
A	05.12.18	ISSUED FOR REVIEW	LD
ISSUE AND REVISION HISTORY			

CLIENT	ZEGNA
--------	-------

LOCAL GOVERNMENT AUTHORITY	City of Joondalup
----------------------------	-------------------

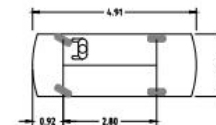
SCALE @A1	HORIZ 1:125
DATUM	
HORIZONTAL	
VERTICAL	N/A



**INFORMATION ONLY**

DATE DRAWN: 05.12.18	6-8 BRECHIN COURT	
DESIGNED: N/A	PROPOSED RESIDENTIAL APARTMENT	
DRAWN: KL	SWEEP PATH ANALYSIS - STANDARD B85 VEHICLE BLIND AISLE BAY - INBOUND MOVEMENT	
CHECKED: LD	DRAWING NUMBER:	REV.
APPROVED: LD	1812004-SK-001	B





B85 VEHICLE (REALISTIC MIN RADIUS)	
OVERALL LENGTH	4.91m
OVERALL WIDTH	1.87m
OVERALL BODY HEIGHT	1.42m
MIN BODY GROUND CLEARANCE	0.16m
TRACK WIDTH	1.77m
LOCK-TO-LOCK TIME	4.08sec
KERB-TO-KERB TURNING RADIUS	5.75m



#### LEGEND

	STANDARD B85 TURNING TEMPLATE FORWARD MOVEMENT
	STANDARD B85 TURNING TEMPLATE REVERSE MOVEMENT

REV	DATE	DESCRIPTION	APPROVED
B	05.12.19	ISSUED FOR REVIEW	LD
A	05.12.19	ISSUED FOR REVIEW	LD
ISSUE AND REVISION HISTORY			

CLIENT	
--------	--

LOCAL GOVERNMENT AUTHORITY	
----------------------------	--

SCALE @A1	HORIZ: 1/25
DATUM	
HORIZONTAL:	
VERTICAL:	N/A



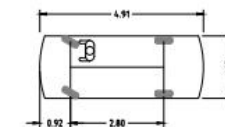
INFORMATION ONLY

DATE DRAWN:	05.12.19
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	LD
APPROVED:	LD

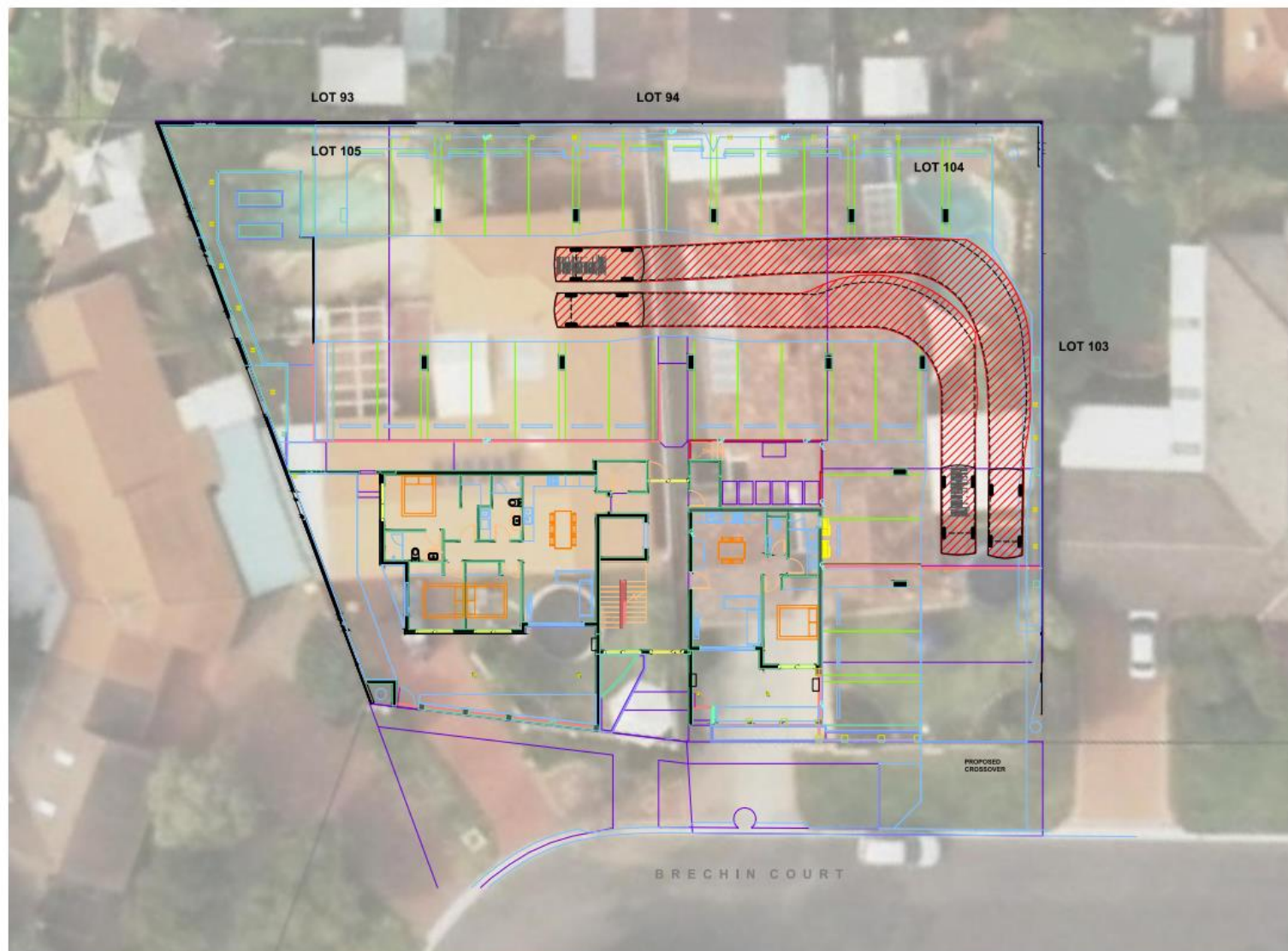
6-8 BRECHIN COURT PROPOSED RESIDENTIAL APARTMENT SWEEP PATH ANALYSIS - STANDARD B85 VEHICLE BLIND AISLE BAY - OUTBOUND MOVEMENT	
DRAWING NUMBER:	1812004-SK-002
REV:	B

LAST SAVED BY: KL DATE: 5 Jun 2019 04:30 AM

SCALE 1:25  
A 1



**B85 VEHICLE (REALISTIC MIN RADIUS)**  
 OVERALL LENGTH 4.91m  
 OVERALL WIDTH 1.87m  
 OVERALL BODY HEIGHT 1.42m  
 MIN BODY GROUND CLEARANCE 0.16m  
 TRACK WIDTH 1.77m  
 LOCK-TO-LOCK TIME 4.88sec  
 KERB-TO-KERB TURNING RADIUS 5.75m



# LEGEND

STANDARD B85 TURNING TEMPLATE  
 FORWARD MOVEMENT

SCALE 1:200  
 A 1

REV	DATE	DESCRIPTION	APPROVED
B	05.12.19	ISSUED FOR REVIEW	LD
A	05.12.19	ISSUED FOR REVIEW	LD
ISSUE AND REVISION HISTORY			

CLIENT	
--------	--

LOCAL GOVERNMENT AUTHORITY	
----------------------------	--

SCALE @A1	HORIZ 1:25
DATUM	HORIZONTAL
VERTICAL	N/A



**INFORMATION ONLY**

DATE DRAWN:	05.12.19
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	LD
APPROVED:	LD

6-8 BRECHIN COURT PROPOSED RESIDENTIAL APARTMENT SWEEP PATH ANALYSIS - STANDARD B85 VEHICLE TWO-WAY CORNER MANOEUVRING	
DRAWING NUMBER:	1812004-SK-003
REV:	B



## Environmentally Sustainable Design – Checklist

Under the City's planning policy, *Environmentally Sustainable Design in the City of Joondalup*, the City encourages the integration of environmentally sustainable design principles into the construction of all new residential, commercial and mixed-use buildings and redevelopments (excluding single and grouped dwellings, internal fit outs and minor extensions) in the City of Joondalup.

Environmentally sustainable design is an approach that considers each building project from a 'whole-of-life' perspective, from the initial planning to eventual decommissioning. There are five fundamental principles of environmentally sustainable design, including: siting and structure design efficiency; energy efficiency; water efficiency; materials efficiency; and indoor air quality enhancement.

For detailed information on each of the items below, please refer to the *Your Home Technical Manual* at: [www.yourhome.gov.au](http://www.yourhome.gov.au), and *Energy Smart Homes* at: [www.clean.energy.wa.gov.au](http://www.clean.energy.wa.gov.au).

This checklist must be submitted with the planning application for all new residential, commercial and mixed-use buildings and redevelopments (excluding single and grouped dwellings, internal fit outs and minor extensions) in the City of Joondalup.

The City will seek to prioritise the assessment of your planning application and the associated building application if you can demonstrate that the development has been designed and assessed against a national recognised rating tool.

Please tick the boxes below that are applicable to your development.

### Siting and structure design efficiency

Environmentally sustainable design seeks to affect siting and structure design efficiency through site selection, and passive solar design.

Does your development retain:

- ☐ existing vegetation; and/or
- ☒ natural landforms and topography

Does your development include:

- ☒ northerly orientation of daytime living/working areas with large windows, and minimal windows to the east and west
- ☒ passive shading of glass
- ☒ sufficient thermal mass in building materials for storing heat
- ☒ insulation and draught sealing
- ☒ floor plan zoning based on water and heating needs and the supply of hot water; and/or
- ☐ advanced glazing solutions

### Energy efficiency

Environmentally sustainable design aims to reduce energy use through energy efficiency measures that can include the use of renewable energy and low energy technologies.

Do you intend to incorporate into your development:

- ☒ renewable energy technologies (e.g. photo-voltaic cells, wind generator system, etc); and/or
- ☒ low energy technologies (e.g. energy efficient lighting, energy efficient heating and cooling, etc); and/or
- ☒ natural and/or fan forced ventilation

### Water efficiency

Environmentally sustainable design aims to reduce water use through effective water conservation measures and water recycling. This can include stormwater management, water reuse, rainwater tanks, and water efficient technologies.

Does your development include:

- ☐ water reuse system(s) (e.g. greywater reuse system); and/or
- ☐ rainwater tank(s)

Do you intend to incorporate into your development:

- ☒ water efficient technologies (e.g. dual-flush toilets, water efficient showerheads, etc)

### Materials efficiency

Environmentally sustainable design aims to use materials efficiently in the construction of a building. Consideration is given to the lifecycle of materials and the processes adopted to extract, process and transport them to the site. Wherever possible, materials should be locally sourced and reused on-site.

Does your development make use of:

- ☐ recycled materials (e.g. recycled timber, recycled metal, etc)
- ☐ rapidly renewable materials (e.g. bamboo, cork, linoleum, etc); and/or
- ☐ recyclable materials (e.g. timber, glass, cork, etc)
- ☐ natural/living materials such as roof gardens and "green" or planted walls

### Indoor air quality enhancement

Environmentally sustainable design aims to enhance the quality of air in buildings, by reducing volatile organic compounds (VOCs) and other air impurities such as microbial contaminants.

Do you intend to incorporate into your development:

- ☒ low-VOC products (e.g. paints, adhesives, carpet, etc)

### 'Green' Rating

Has your proposed development been designed and assessed against a nationally recognised "green" rating tool?

- ☐ Yes
- ☒ No

If yes, please indicate which tool was used and what rating your building will achieve:

As part of project design development, the design will be assessed in accordance with energy rating software by a qualified and certified energy consultant.

If yes, please attach appropriate documentation to demonstrate this assessment.



If you have not incorporated or do not intend to incorporate any of the principles of environmentally sustainable design into your development, can you tell us why:

Is there anything else you wish to tell us about how you will be incorporating the principles of environmentally sustainable design into your development:

Designed in accordance with Design WA guidelines

When you have checked off your checklist, sign below to verify you have included all the information necessary to determine your application.

Thank you for completing this checklist to ensure your application is processed as quickly as possible.

Applicant's Full Name: GILES HARDEN JONES Contact Number: 0412 002 618

Applicant's Signature:  Date Submitted: 14.12.2018

Accepting Officer's Signature: \_\_\_\_\_

Checklist Issued: March 2011

## PROPOSED RESIDENTIAL DEVELOPMENT 8-10 BRECHIN COURT, DUNCRAIG.

### SPP 7.3 ELEMENT OBJECTIVES SUMMARY



Submitted by

**HARDENJONESARCHITECTS**

Suite 8-300 Rokeby Road Subiaco WA 6008  
Ph | +61 8 9380 9900  
Email | admin@hjarchitect.com.au

HJ Architects Pty Ltd ABN 33 066 326 257  
Architects Board Registration 2552

**REV A      07 JUNE 2019**



**INTRODUCTION:**

This Summary is to be read in conjunction with the following Development Application Submission Documents:

<b>Document</b>	<b>Date/REV</b>
HJA DA Submission	DA006
HJA DA Context	DA006
Landscape Plan	REV C
Traffic Impact Statement	REV 2
Waste management Plan	REV C
CF Town Planning Report	JUNE 2019
SPP 7.3 Objectives Summary	REV A (This Document)

## A6 – OBJECTIVES SUMMARY

### PART 2 – PRIMARY CONTROLS

#### 2.2 Building height

**O 2.2.1** The height of **development** responds to the desired future scale and character of the **street** and local area, including existing **buildings** that are unlikely to change.

*Applicant Response*

*The Site is located within a Housing Opportunity Area as defined by the City of Joondalup's Planning Scheme. It is Zoned R20/R60 and is in a transitional area with a close proximity to Public Transport and Warwick Train Station (Refer HJA Context Drawings)*

*The proposed development meets the Height requirements as per Table 2.1*

*The Proposed Development meets the Side and Rear Setback Requirements of Table 2.1*

*The Proposed Development meets the provisions of Table 2.1 and COJ Residential Development Local Planning Policy Table 2*

*The Proposed Development is consistent with Neighbourhood Centre Suburban Context P116 of SPP 7.3*

**O 2.2.2** The height of **buildings** within a **development** responds to changes in topography.

*Applicant Response*

*The Site has an approximate cross fall of 2.5m/1:10. To the NE Section of the site, the site is retained by approximately 1.0m, the Undercroft parking is graded to fall to the South to take advantage of the Cross Fall and therefore minimise any retaining to the Southern Boundary/minimise any bulk and scale to this boundary*

**O 2.2.3** **Development** incorporates articulated roof design and/or roof top **communal open space** where appropriate.

*Applicant Response*

*Due to height concerns raised by adjoining property owners, the Communal Open Space is Located on the Northern Boundary and is a communal garden space.*

**O 2.2.4** The height of **development** recognises the need for **daylight** and **solar access** to adjoining and nearby residential development, **communal open space** and in some cases, public spaces.

*Applicant Response*

*The proposed development meets the Overshadowing provisions of SPP 7.3. (A205)*

*The proposed development meets the provisions of SPP 4.1 (A301-A303)*

#### 2.3 Street setbacks

**O 2.3.1** The **setback** of the **development** from the **street** reinforces and/or complements the existing or proposed **landscape character** of the street.

*Applicant Response*

*The Proposed Development meets the provisions of Table 2.1 and COJ Residential Development Local Planning Policy Table 2*

*The elevations provide articulation and interest, balconies, Street Observation.*



**O 2.3.2** The **street setback** provides a clear transition between the public and private realm.

*Applicant Response*

*Sensitive Screen Fencing and detailing confirms clear delineation to public and private spaces*

**O 2.3.3** The **street setback** assists in achieving visual privacy to **apartments** from the street.

*Applicant Response*

Achieved. Ground Floor Apartments have clear public and private spaces defined with the opportunity for Garden and Soft Landscaping

**O 2.3.4** The **setback** of the **development** enables **passive surveillance** and outlook to the **street**.

*Applicant Response*

Achieved, refer to points 2.3.1 above.

## **2.4 Side and rear setbacks**

**O 2.4.1** **Building** boundary **setbacks** provide for adequate separation between neighbouring properties.

*Applicant Response*

The setbacks are in accordance with Table 2.1 & Table 3.5

**O 2.4.2** **Building** boundary **setbacks** are consistent with the existing **streetscape** pattern or the desired streetscape character.

*Applicant Response*

As previously stated, the site area is in Transition from R20 to R60. The proposed development meets Table 2.1 and COJ Residential Development Policy Table 2

**O 2.4.3** The **setback** of **development** from side and rear boundaries enables retention of existing trees and provision of **deep soil areas** that reinforce the **landscape character** of the area, support tree canopy and assist with **stormwater** management.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03*

**O 2.4.4** The **setback** of **development** from side and rear boundaries provides a transition between **sites** with different land uses or intensity of development.

## **2.5 Plot ratio**

**O 2.5.1** The overall bulk and scale of **development** is appropriate for the existing or planned character of the area.

*Applicant Response*

*The site is in a dual coded Transition area R20 to R60*

*Table 2.1 has a defined Plot Ratio of 0.8. Proposed Plot Ratio of 0.95 (15% Increase) is proposed*

*When applying PG2.5.1 the applicant submits that the proposed development meets the intent of the element objective as the overall height and setback requirements of SPP 7.3 are achieved*

## **2.6 Building depth**

**O 2.6.1** **Building depth** supports **apartment** layouts that optimise **daylight** and **solar access** and **natural ventilation**.

*Applicant Response*

*Figure 2.6b defines a building depth of 20.0m. When removing circulation spaces and structure, this gives an effective maximum apartment depth of 9.0m to the living area.*

*The Proposed Apartments do not have an effective depth of greater than 9.0m (generally less)*

*The apartments meet the provisions of 4.1 & 4.1. REF: A301-303*

**O 2.6.2** Articulation of **building** form to allow adequate access to **daylight** and **natural ventilation** where greater **building depths** are proposed.

*Applicant Response*

*Refer 02.6.1 Above*

**O 2.6.3** Room depths and/or ceiling heights optimise **daylight** and **solar access** and **natural ventilation**.

*Applicant Response*

*Refer to A301-303.*

*Proposed Ceiling Heights of habitable rooms are min 2700 as indicated on elevations*

## **2.7 Building separation**

**O 2.7.1** New **development** supports the desired future **streetscape** character with spaces between **buildings**.

*Applicant Response*

Table 2.7 Applies.

Balconies are not proposed to the Southern Boundary (Figure 2.7a)

Visual Privacy provision 3.5 are achieved. Refer to Cone of Vision diagrams on floor plans

**O 2.7.2** **Building** separation is in proportion to building height.

*Applicant Response*

*Not Applicable*

**O 2.7.3** **Buildings** are separated sufficiently to provide for residential **amenity** including visual and **acoustic privacy**, **natural ventilation**, **sunlight** and **daylight** access and outlook.

*Applicant Response*

*Achieved, building meets the setback provisions of Table 2.1*

**O 2.7.4** Suitable areas are provided for **communal** and **private open space**, **deep soil areas** and **landscaping** between **buildings**.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03*

## **PART 3 – SITING THE DEVELOPMENT**

### **3.2 Orientation**

**O 3.2.1** **Building** layouts respond to the **streetscape**, topography and **site** attributes while optimising **solar** and **daylight access** within the **development**.

*Applicant Response*

*Refer to A301-303. Provisions of 4.1 & 4.2 Achieved*

**O 3.2.2** **Building** form and orientation minimises overshadowing of the **habitable rooms**, **open space** and **solar collectors** of neighbouring properties during **mid-winter**.

*Applicant Response*

*Refer to A205. Overshadowing to the Southern Property is within the provisions of the Code.*

### **3.3 Tree canopy and deep soil areas**

**O 3.3.1** **Site** planning maximises retention of existing healthy and appropriate and protects the viability of **adjoining trees**.

*Applicant Response*



*Refer to Landscape Plan NewForms Landscape L01-L03*

**O 3.3.2** Adequate measures are taken to improve tree canopy (long term) or to offset reduction of tree canopy from pre-**development** condition.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03*

**O 3.3.3 Development** includes **deep soil areas**, or other infrastructure to support planting on structures, with sufficient area and volume to sustain healthy plant and tree growth.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03*

### 3.4 Communal open space

**O 3.4.1** Provision of quality **communal open space** that enhances resident **amenity** and provides opportunities for **landscaping**, tree retention and **deep soil areas**.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03*

**O 3.4.2 Communal open space** is safe, **universally accessible** and provides a high level of **amenity** for residents.

*Applicant Response*

*Universal Access is achieved.*

*Refer to Landscape Plan NewForms Landscape L01-L03 & HJA A201*

**O 3.4.3 Communal open space** is designed and oriented to minimise impacts on the **habitable rooms** and **private open space** within the **site** and of neighbouring properties.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03 & HJA A201*

### 3.5 Visual privacy

**O 3.5.1** The orientation and design of **buildings**, windows and **balconies** minimises direct overlooking of **habitable rooms** and private outdoor living areas within the **site** and of neighbouring properties, while maintaining **daylight** and **solar access**, ventilation and the external outlook of habitable rooms.

*Applicant Response*

*6.0m Cone of Vision (COV) is achieved.*

*As the area is in transition, 7.5m (as required by R20) COV occurs to the NE Boundary.*

*The proposed design and placement of apartments to the NE Corner has been amended in accordance with DG3.5.2.*

*Any areas of transitional COV 7.5m to 6.0m are indicated on A205 and are not areas of adjoining open space.*

### 3.6 Public domain interface

**O 3.6.1** The transition between the private and **public domain** enhances the privacy and safety of residents.

*Applicant Response*

*Principal entry to the apartments is clearly indicated with clear sightlines for residents and visitors.*

**O 3.6.2 Street** facing **development** and **landscape** design retains and enhances the **amenity** and safety of the adjoining **public domain**, including the provision of shade.

*Applicant Response*

*Refer O3.6.1 above and below.*

*Principal Entry is located to the South therefore shade is not a factor*

### 3.7 Pedestrian access and entries

**O 3.7.1** Entries and pathways are **universally accessible**, easy to identify and safe for residents and visitors.

*Applicant Response*

*Pedestrian entry is clearly defined within the Building Elevation.*

*The Pedestrian entry is protected from the Weather with an entry canopy as indicated on the Floor Plans Liveable Housing (Silver Level) Dwelling Access Part C Applies.*

**O 3.7.2** Entries to the **development** connect to and address the **public domain** with an attractive **street** presence.

*Applicant Response*

*Achieved Ref: Elevations and Perspectives lodged with this submission (A401-402). Clear Pathways defined*

### 3.8 Vehicle access

**O 3.8.1** Vehicle access points are designed and located to provide safe access and egress for vehicles and to avoid conflict with pedestrians, cyclists and other vehicles.

*Applicant Response*

*Achieved. Carparking Spaces are designed to the Building Code and Australian Standard. Bay Width and Length Complies. Blind Isles are included. Wheel Stops will be included*

*Areas of private parking are private space to the apartment complex, Low Car Movement, Visual Sight lines are not compromised.*

**O 3.8.2** Vehicle access points are designed and located to reduce visual impact on the **streetscape**.

*Applicant Response*

*Vehicle Entry is 'tucked into' the building fabric.*

### 3.9 Car and bicycle parking

**O 3.9.1** Parking and facilities are provided for cyclists and other modes of transport.

*Applicant Response*

*Bike Racks are provided on site for Residents (located in stores) and for the Public adjacent to Apartment 01.*

*Steadyracks are proposed. [www.steadyrack.com](http://www.steadyrack.com)*

**O 3.9.2** Carparking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres.

*Applicant Response*

*The Proposed Development is in a Location A in accordance with 3.9*

*Proposed On Site Parking is in accordance with Table 3.9 Parking Ratio*

**O 3.9.3** Car parking is designed to be safe and **accessible**.

*Applicant Response*

*Achieved. Refer also to Traffic Impact Statement*

**O 3.9.4** The design and location of car parking minimises negative visual and environmental impacts on **amenity** and the **streetscape**.



*Applicant Response**Parking is located in an undercroft and removed from the streetscape as far as practically possible.**Visitor Parking is located forward of the security barrier for easy access***PART 4 – DESIGNING THE BUILDING****4.1 Solar and daylight access****O 4.1.1** In **climate zones** 4, 5 and 6: the **development** is sited and designed to optimise the number of **dwelling**s receiving winter **sunlight** to **private open space** and via windows to **habitable rooms**.*Applicant Response**Achieved. Refer to A301-304.**All apartments meet the provisions of 4.1 Solar Access Climate Zone 5**60% of apartments achieve the Cross-Ventilation Requirements as indicated by 'NCV' note on apartment plan.***O 4.1.2** Windows are designed and positioned to optimise **daylight** access for **habitable rooms**.*Applicant Response.**All Habitable Rooms have windows that are positioned to enhance natural light ingress.**All Habitable Rooms have windows visible from the interior of the room***O 4.1.3** The **development** incorporates shading and glare control to minimise heat gain and glare:

- from mid-spring to autumn in **climate zones** 4, 5 and 6 **AND**
- year-round in climate zones 1 and 3.

*Applicant Response.**Balconies have shade devices over**Windows have shade devices over***4.2 Natural ventilation****O 4.2.1** **Development** maximises the number of **apartment**s with **natural ventilation**.*Applicant Response**Achieved. Refer to A301-304.***O 4.2.2** Individual **dwelling**s are designed to optimise **natural ventilation** of **habitable rooms**.*Applicant Response**Achieved. Refer to A301-304.***O 4.2.3** **Single aspect apartment**s are designed to maximise and benefit from **natural ventilation**.*Applicant Response**Achieved. Refer to A301-304.***4.3 Size and layout of dwellings****O 4.3.1** The internal size and layout of **dwelling**s is functional with the ability to flexibly accommodate furniture settings and personal goods, appropriate to the expected household size.*Applicant Response**Apartment*s have been designed in accordance with Table 4.3a & 4.3b*Refer to dimensions indicated on A201-203*

**O 4.3.2** Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good **natural ventilation** and **daylight** access.

*Applicant Response*

*Ceiling Heights to Habitable rooms are 2.7m minimum and minimum Sizes in accordance with Table 4.3b*

#### 4.4 Private open space and balconies

**O 4.4.1** Dwellings have good access to appropriately sized **private open space** that enhances residential **amenity**.

*Applicant Response*

*Achieved. Areas of balconies & dimensions indicated on submission drawings*

**O 4.4.2** **Private open space** is sited, oriented and designed to enhance liveability for residents.

*Applicant Response*

*Achieved. Balcony spaces are located directly abutting habitable spaces and are located to give privacy and amenity to the resident/occupier.*

**O 4.4.3** **Private open space** and **balconies** are integrated into the overall architectural form and detail of the **building**.

*Applicant Response*

*Achieved. Areas of balconies indicated on submission drawing, perspectives and elevations*

#### 4.5 Circulation and common spaces

**O 4.5.1** Circulation spaces have adequate size and capacity to provide safe and convenient access for all residents and visitors.

*Applicant Response.*

*Circulation Spaces min dimensions 1600mm as indicated on Submission Drawings*

**O 4.5.2** Circulation and common spaces are attractive, have good **amenity** and support opportunities for social interaction between residents.

*Applicant Response*

*Achieved. Circulation areas have access to Natural Light and ventilation.*

#### 4.6 Storage

**O 4.6.1** Well-designed, functional and conveniently located **storage** is provided for each **dwelling**.

*Applicant Response*

*Achieved. Storage Spaces are provided, access from either within the apartment or in immediate proximity to the apartment front door.*

#### 4.7 Managing the impact of noise

**O 4.7.1** The siting and layout of **development** minimises the impact of external noise sources and provides appropriate **acoustic privacy** to **dwellings** and **on-site open space**.

*Applicant Response*

*Achieved. Apartment Construction will be in accordance with the Reporting as provided by a Qualified Acoustic Engineer*

**O 4.7.2** Acoustic treatments are used to reduce sound transfer within and between **dwellings** and to reduce noise transmission from external noise sources.

*Applicant Response*



*Achieved. Apartment Construction will be in accordance with the Reporting as provided by a Qualified Acoustic Engineer*

#### 4.8 Dwelling mix

**O 4.8.1** A range of **dwelling** types, sizes and configurations is provided that caters for diverse household types and changing community demographics.

*Applicant Response*

Apartment Types are 1 Bed/2 Bed and 3 Bed to provide a diverse mix of dwelling types to cater for a variety of end occupants/owners/residents.

#### 4.9 Universal design

**O 4.9.1 Development** includes **dwelling**s with **universal design** features providing dwelling options for people living with disabilities or limited mobility and/or to facilitate ageing in place.

*Applicant Response*

20% (3.2) Apartments will meet the Silver Level of the Universal Access requirements 1-15

[http://www.livablehousingaustralia.org.au/library/SLLHA\\_GuidelinesJuly2017FINAL4.pdf](http://www.livablehousingaustralia.org.au/library/SLLHA_GuidelinesJuly2017FINAL4.pdf)

Apartments 5,6,12,13 meet the Universal Access Requirements.

#### 4.10 Façade design

**O 4.10.1 Building façades** incorporate proportions, materials and design elements that respect and reference the character of the local area.

*Applicant Response*

Facades and elevations contain materials and finishes that reflect the residential nature of the area, i.e., rendered Brick, Face Brick, windows of a residential nature/etc.

**O 4.10.2 Building façades** express internal functions and provide visual interest when viewed from the public realm.

*Applicant Response*

Achieved. The treatment of the facades received general support from the COJ Design Review Panel

#### 4.11 Roof design

**O 4.11.1** Roof forms are well integrated into the **building** design and respond positively to the **street**.

*Applicant Response*

Flat Roofs are proposed. The surrounding area contains a variety and mix of old and new housing/apartment stock. Some have flat roofs, some pitched.

Flat roofs are not inconsistent with the immediate surrounding area

**O 4.11.2** Where possible, roof spaces are utilised to add **open space**, **amenity**, solar energy generation or other benefits to the **development**.

*Applicant Response*

Solar Panels will be located on the Roof Spaces

Air Conditioning plant will be located on the Roof Areas, screed and generally non-visible from the Street.

#### 4.12 Landscape design

**O 4.12.1 Landscape** design enhances **streetscape** and pedestrian **amenity**; improves the visual appeal and comfort of **open space** areas; and provides an attractive outlook for **habitable rooms**.

*Applicant Response*

Refer to Landscape Plan NewForms Landscape L01-L03 & HJA A201

**O 4.12.2** Plant selection is appropriate to the orientation, exposure and **site** conditions and is suitable for the adjoining uses.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03 & HJA A201*

**O 4.12.3 Landscape** design includes water efficient irrigation systems and where appropriate incorporates water harvesting or water re-use technologies.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03 & HJA A201*

**O.4.12.4 Landscape** design is integrated with the design intent of the architecture including its built form, materiality, key functional areas and **sustainability** strategies.

*Applicant Response*

*Refer to Landscape Plan NewForms Landscape L01-L03 & HJA A201*

#### **4.13 Adaptive reuse**

*Applicant Response*

*Adaptive re-use not applicable to this housing area, IE, residential and unlikely to change.*

**O 4.13.1** New additions to existing **buildings** are contemporary and complementary and do not detract from the character and scale of the existing building.

**O 4.13.2** Residential **dwelling**s within an adapted **building** provide good **amenity** for residents, generally in accordance with the requirements of this policy.

*Applicant Response*

*Not Applicable to this development*

#### **4.14 Mixed use**

**O 4.14.1 Mixed use development** enhances the **streetscape** and activates the **street**.

*Applicant Response*

*Not Applicable to this development*

**O 4.14.2** A safe and secure living environment for residents is maintained through the design and management of the impacts of non-residential uses such as noise, light, odour, traffic and waste.

*Applicant Response*

*Not Applicable to this development*

#### **4.15 Energy efficiency**

**O 4.15.1** Reduce energy consumption and greenhouse gas emissions from the **development**.

*Applicant Response*

*The Development will be assessed and certified in accordance with the current Building Code Energy Efficiency requirements.*

#### **4.16 Water management and conservation**

**O 4.16.1** Minimise **potable water** consumption throughout the **development**.

*Applicant Response*

*Dwellings will be individually metered*

**O 4.16.2 Stormwater** runoff from **small rainfall events** is managed on-site, wherever practical.

*Applicant Response*

*Stormwater will be managed on site*



**O 4.16.3** Reduce the risk of flooding so that the likely impacts of **major rainfall events** will be minimal.

#### **4.17 Waste management**

**O 4.17.1** Waste **storage** facilities minimise negative impacts on the **streetscape, building** entries and the **amenity** of residents.

*Applicant Response*

*Refer to the Waste management Plan as part of the Submission Documents*

**O 4.17.2** Waste to landfill is minimised by providing safe and convenient bins and information for the separation and recycling of waste.

*Applicant Response*

*Refer to the Waste management Plan as part of the Submission Documents.*

*Green Waste and Hard Waste management to be as per the WMP and coordinated with the Local Government Waste Services*

#### **4.18 Utilities**

**O 4.18.1** The **site** is serviced with power, water, gas (where available), wastewater, fire services and telecommunications/broadband services that are fit for purpose and meet current performance and access requirements of service providers.

*Applicant Response*

*Utilities and Building Services are located in the undercroft area, out of the public realm.*

*Services will be designed, installed and certified by a suitable qualified and or experienced Engineer or Supplier/Trade where applicable*

**O 4.18.2** All **utilities** are located such that they are accessible for maintenance and do not restrict safe movement of vehicles or pedestrians.

*Applicant Response*

*Achieved*

**O 4.18.3** **Utilities**, such as distribution boxes, power and water meters are integrated into design of **buildings** and **landscape** so that they are not visually obtrusive from the **street** or **open space** within the **development**.

*Applicant Response*

*Achieved*

**O 4.18.4** **Utilities** within individual **dwellings** are of a functional size and layout and located to minimise noise or air quality impacts on **habitable rooms** and **balconies**.

*Applicant Response*

*No Utilities such as Air Conditioning units are located on balconies or near habitable spaces.*





## City of Joondalup SPP 7.3 assessment summary

Element	Objectives	Acceptable Outcome	Proposed	Planning/ design guidance
<b>2.2 Building height</b>	Achieved.	3 storeys (12m)	3 storeys (<12m)	Satisfied
<b>2.3 Street setbacks</b>	Achieved.	Replaced by CoJ RDLPP: 2m min. 4m avg.	2m min. >4m avg.	Satisfied
<b>2.4 Side and rear setbacks</b>	Not achieved.	Side and rear: 3m min. 3.5m avg. And/or Greater setback required for visual privacy. (A2.4.1)  Achieve objectives of 2.7, 3.3, 3.5 and 4.1. (A2.4.2)	>3m min. >3.5m avg.  Greater setback not provided for visual privacy.  Objectives of 2.7, 3.3, 3.5 or 4.1 not achieved.	Not satisfied
<b>2.5 Plot ratio</b>	Not achieved	0.8 (1139m <sup>2</sup> ) (A2.5.1)	0.936 (1332.8m <sup>2</sup> )	Not satisfied
<b>2.6 Building depth</b>	Not achieved	20m (A2.6.1)  Other proposals assessed on merits.	26.6m (U8 to U5 & U15 to U12) Solar and daylight access limited.	Not satisfied
<b>2.7 Building separation</b>	Not achieved	Refer to 2.4 <i>Side and rear setbacks</i> (Table 2.1) and 3.5 <i>Visual privacy</i> (Table 3.5) (A2.7.1).	2.4 <i>Side and rear setbacks</i> (Table 2.1) and 3.5 <i>Visual privacy</i> (Table 3.5) not met.	Not satisfied
<b>3.2 Orientation</b>	Not achieved	Buildings on street orientated to face public realm and incorporate direct access from the street.  25% (A3.2.3)  Buildings orientated to maintain 4 hours per day for existing solar collectors on neighbouring site.	Building is orientated to the public realm and incorporates direct street access.  40.1%  N/A – no solar collectors on adjoining site.	Not satisfied
<b>3.3 Tree canopy and deep soil areas</b>	Not achieved	Retention of trees.  No detrimental impacts on canopy of adjoining trees.  Deep soil area 142.4sqm and provided conducive to tree growth and suitable for communal open space.	N/A- Trees onsite not within criteria.  No detrimental impacts on canopy of adjoining trees.  Deep soil area 152.3sqm and provided conducive to tree growth and suitable for communal open space.	Not satisfied

		<p>1 large tree and 1 medium tree (A3.3.5).</p> <p>Permeable paving or decking within deep soil not exceed 20% of its area and not inhibit trees.</p>	<p>1 medium tree and 3 small trees.</p> <p>Paving &lt;20% and does not inhibit trees.</p>	
<b>3.4 Communal open space</b>	Not achieved	<p>96m<sup>2</sup> communal open space</p> <p>32m<sup>2</sup> to 100 m<sup>2</sup> hardscape.</p> <p>Located on ground floor</p> <p>50% direct sun</p> <p>Co-located with deep soil areas.</p> <p>Separated or screened from adverse amenity impacts (A3.4.5).</p> <p>Well lit, minimises concealment and open passive surveillance.</p>	<p>115.4m<sup>2</sup> communal open space</p> <p>36m<sup>2</sup></p> <p>Located on ground floor</p> <p>&gt;50% direct sun</p> <p>Co-located with deep soil areas.</p> <p>Located adjacent to carparking area with no screen.</p> <p>Minimises concealment and open passive surveillance.</p> <p>Condition for lighting.</p>	Not satisfied
<b>3.5 Visual privacy</b>	Not achieved	<p>Visual privacy setbacks:</p> <p>4.5m to bedroom</p> <p>7.5m to balcony (A3.5.1)</p> <p>Balconies unscreened at least 25%</p> <p>Living rooms have external outlook</p> <p>Windows and balconies restrict direct overlooking. (A3.5.4)</p>	<p>3m to bedroom</p> <p>6m to balcony.</p> <p>Balconies unscreened &gt;25%</p> <p>All living rooms have major opening with external outlook.</p> <p>Major openings (U6 &amp; 13 bed 1 &amp; 2; and U4 &amp; U11 bed 2) result in direct overlooking.</p>	Not satisfied (U6 & 13 bed 1 & 2; and U4 & U11 bed 2)
<b>3.6 Public domain interface</b>	Not achieved	<p>Ground floor dwellings direct access from street.</p> <p>Car-parking not located within primary street setback area (A3.6.2).</p> <p>Balconies and/or windows overlook public domain</p>	<p>Direct access from street provided to ground floor units.</p> <p>Visitor parking located within primary street area.</p> <p>Balconies and/or windows overlook public domain.</p>	Not satisfied



		<p>Balustrading provides privacy for residents and achieves surveillance of adjoining public domain.</p> <p>Level changes to the street: 1m avg. 1.2m max.</p> <p>Front fencing visually permeable above 1.2m</p> <p>Elements on frontage eliminate opportunities for concealment.</p> <p>Bins not located within primary street setback area.</p> <p>Services and utilities located within primary street setback area integrated into the development.</p>	<p>Balustrading achieves privacy for residents and surveillance of public domain.</p> <p>&lt;1m &lt;1.2m</p> <p>Visually permeable above 0.735m</p> <p>Elements on frontage eliminate opportunities for concealment. Bins located outside primary street setback area.</p> <p>Gas and water metres located within street setback area. <b>Condition to comply.</b></p>	
<b>3.7 Pedestrian access and entries</b>	Achieved.	<p>Pedestrian entries connected</p> <p>Pedestrian entries protected from weather.</p> <p>Pedestrian entries well-lit, visible from public domain and enable casual surveillance.</p> <p>Pedestrian access via shared zone, path is clearly delineated and/or incorporated to prioritise pedestrian and constrain vehicle speed.</p> <p>Services and utilities located at pedestrian entry.</p> <p>Bins not located at primary pedestrian entry.</p>	<p>Pedestrian entries are connected.</p> <p>Canopy provided.</p> <p>Pedestrian entry is visible from public domain and is provided casual surveillance. <b>Condition for lighting.</b></p> <p>Path provided in carpark that is clearly delineated.</p> <p>Applicant advised they are integrated. <b>Condition to comply.</b></p> <p>Bins located to rear of building not at main pedestrian entry.</p>	

<b>3.8 Vehicle access</b>	<p>Achieved.</p>	<p>Vehicle access one opening per 20m.</p> <p>Vehicle entries identifiable from the street, integrated with faced and/or located behind primary building line.</p> <p>Vehicle entries have adequate separation from street intersection.</p> <p>Vehicle circulation areas avoid headlights shining into habitable rooms within the development and adjoining properties.</p> <p>Driveway width minimum for functionality.</p> <p>Driveway designed for 2 way access.</p> <p>Replaced by City's RDLPP clause 6.2.3.</p>	<p>One vehicle access point.</p> <p>Vehicle entry is identifiable and suitably integrated with the overall façade.</p> <p>Adequate separation provided.</p> <p>Vehicle circulation areas appropriate.</p> <p>Driveway minimum provided.</p> <p>Driveway permits 2 way access.</p> <p>Planter beds &lt;0.75m within truncation. Fence within truncation however 50% visually permeable.</p>	
<b>3.9 Car and bicycle parking</b>	<p>Not achieved</p>	<p>9 secure, undercover bicycle parking and accessed via a continuous path of travel from the entry.</p> <p>16 (15.25) resident car parking bays; and 4 visitor car-parking bays (A3.9.2)</p> <p>Maximum parking provision does not exceed double the minimum (38.5)</p> <p>Car parking areas and vehicle circulation areas designed in accordance with AS2890.1.</p> <p>Carparking areas not located within street</p>	<p>6 available on ground floor adjacent resident parking and 4 provided in resident stores.</p> <p>28 resident bays; and 3 visitor parking bays</p> <p>31 car parking bays.</p> <p>Car parking and circulation as per AS2890.1.</p> <p>2 visitor parking bays are located within the</p>	<p>Not satisfied</p>



		<p>setback and not visually prominent from the street (A3.9.5).</p> <p>Car parking designed, landscaped or screened to mitigate visual impacts when viewed from the dwellings and private outdoor spaces (A3.9.6).</p> <p>Visitor parking clearly visible from driveway, signed and accessible.</p>	<p>street setback area and will be visually prominent from the street.</p> <p>Visitor parking bay 1 directly visible from Unit 1 private outdoor space and bedroom 1.</p> <p>Visitor parking is visible and accessible. <b>Condition for signage.</b></p>	
<b>4.1 Solar and daylight access</b>	<b>Not achieved</b>	<p>Minimum 70% dwellings having living rooms and private open space obtaining at least 2 hours direct sunlight; and maximum 15% receiving no direct sunlight (A4.1.1).</p> <p>Habitable rooms one window in external wall, visible from all parts of room, glazed area not less than 10% of floor area and minimum 50% clear glazing.</p> <p>Light wells and/or skylights not primary source of daylight to any habitable room.</p> <p>Building orientated and incorporates external shading devices.</p>	<p>50% of living rooms to dwellings receive at least 2 hours direct sunlight; and appears that &lt;15% receive no direct sunlight.</p> <p>Windows provided &gt;10% of floor area with minimum 50% clear glazing.</p> <p>Not primary source.</p> <p>Shading devices provided.</p>	<b>Not satisfied</b>
<b>4.2 Natural ventilation</b>		<p>Habitable rooms have openings on at least two walls with straight line distance 2.1m</p> <p>Minimum 60% of dwellings are naturally cross ventilated; and single aspect apartments included must have ventilation openings oriented to prevailing cooling winds; and room depth no greater than 3*ceiling height.</p>	<p>Provided.</p> <p>62.5% naturally cross ventilated units; single aspect not included in 62.5%.</p>	

		Depth of cross-over and cross-through apartments with openings either side not exceed 20m.	<20m.	
		No habitable room relies on light wells.	No reliance solely on lightwells.	
<b>4.3 Size and layout of dwellings</b>	Not achieved	<p>Dwellings internal floor areas as per Table 4.3a.</p> <p>Habitable room floor areas as per Table 4.3b.</p> <p>Floor to ceiling height 2.7m for habitable rooms, 2.4m for non-habitable rooms, and other as per NCC.</p> <p>Maximum length of single aspect open plan living area 9m (A4.3.4)</p>	<p>Adequate internal floor spaces provided.</p> <p>Minimum room floor areas provided.</p> <p>Ceiling height 2.743m provided.</p> <p>Unit 9 and Unit 16 open plan living area 9.33m</p>	Not satisfied
<b>4.4 Private open space and balconies</b>	Achieved.	<p>Private open space to each dwelling as per Table 4.4.</p> <p>Entire open space not screened, and screening does not obscure outlook.</p> <p>Design detailing, materiality and landscaping of the private open space integrate with/compliments building.</p> <p>Services and fixtures located within private open space not visible from street/integrated into building design.</p>	<p>&gt;15m<sup>2</sup> to ground floor units. &gt;12m<sup>2</sup> to upper floor units.</p> <p>Minimal screening provided and does not obscure outlook.</p> <p>Design compliments building.</p> <p>Generally acceptable, however condition to comply to reinforce.</p>	
<b>4.5 Circulation and common spaces</b>	Achieved.	<p>Circulation corridor 1.5m min.</p> <p>Circulation and common space capable of passive surveillance.</p>	<p>1.6m provided.</p> <p>Circulation passive surveillance achieved from entry doors to Units and the street with full height windows.</p>	



		Circulation and common spaces lit without light spill to habitable rooms.	Common space passive surveillance from Unit 4 and Unit 11. Condition to comply.	
<b>4.6 Storage</b>	Achieved.	Store sizes as per Table 4.6. 5m <sup>2</sup> for a 3 bedroom dwelling (A4.6.1)  Stores conveniently located, safe, well-lit, secure and subject to passive surveillance.  Stores provided separately from dwellings or within or adjacent to private open spaces (A4.6.3).	Store sizes acceptable with exception of: Unit 1: 4.5m <sup>2</sup> Unit 7: 4m <sup>2</sup> Unit 14: 4m <sup>2</sup>  Stores acceptable.  Stores provided internal to dwellings: Unit 3, Unit 4, Unit 5, Unit 6, Unit 10, Unit 11, Unit 12 and Unit 13.	Satisfied  DG4.6.4:
<b>4.7 Managing the impact of noise</b>	Achieved.	Exceed NCC requirements.  Potential noise sources not adjacent external wall habitable room or within 3m of bedroom (A4.7.2).  Major openings oriented away/shielded from external noise sources.	Condition to comply.  Bin store adjacent to Unit 2 Kitchen.  Major openings located away from AC units, bin stores and parking area.	Satisfied DG4.7.1: Condition to reinforce.
<b>4.8 Dwelling mix</b>	Achieved.	At least 20% of apartments with differing number of bedrooms.	3 * 3 bed = 18.75% 3 * 1 bed = 18.75% 10 * 2 bed = 62.25%	
<b>4.9 Universal design</b>	Not achieved (O4.9.1).	20% of dwellings meet Silver level requirements; or 5% of dwellings designed to Platinum Level (A4.9.1).	0% of dwellings achieve Silver level or Platinum requirements.	Not satisfied
<b>4.10 Façade design</b>	Achieved.	Façade design  Façade includes elements that relate to key datum lines of adjacent buildings.  Building services fixtures integrated in	Condition to comply (colour and material schedule).  Condition to comply (colour and material schedule).  Condition to comply.	

		design and not visually intrusive from public realm.  (A4.10.2, A4.10.5 and A4.10.6 N/A)		
<b>4.11 Roof design</b>	Achieved.	Roof form or top of building complements façade design and desired streetscape character.  Building services located on room not visually obtrusive from street.  (A4.11.3 N/A)	Roof form acceptable.  AC units screened and setback adequately to not be visually obtrusive.	
<b>4.12 Landscape design</b>	Not achieved	Submission landscape plan by competent landscape designer.  Landscaped areas are located and designed to support mature, shade producing trees to open space and the public realm, and to improve outlook and amenity to habitable rooms and open space areas (A4.12.2).  Planting on structures as per Table 4.12.  Building services integrated in design of landscaping.	Landscape plan provided and prepared by landscape designer.  Landscaped area between the visitor parking bays, located within the street setback area and front boundary and lack of a landscaped area between visitor parking bays and unit 2, is not sufficient to support shade-producing trees or dense landscaping to improve the public realm or outlook and amenity to bed 1 and the outdoor living area of unit 2.  Planting in planter boxes to balcony suitable to shrubs and ground cover.  Condition to comply.	Not satisfied:
<b>4.13 Adaptive reuse</b>	N/A	Not applicable as development not heritage.	N/A	N/A
<b>4.14 Mixed use</b>	N/A	Not applicable as development not mixed use.	N/A	N/A
<b>4.15 Energy efficiency</b>	Achieved.	Incorporate at least one significant energy efficiency initiative; or	Solar panels provided.	



		all dwellings exceed minimum NATHERS requirements for apartments by 0.5 stars.		
<b>4.16 Water management and conservation</b>	Achieved.	<p>Dwellings are individually metered for water usage.</p> <p>Storm water runoff is managed on-site.</p> <p>Provision of an overland flow path for safe conveyance of runoff from major rainfall events to the local stormwater drainage system.</p>	<p>Condition to comply.</p> <p>Condition to comply.</p> <p>Condition to comply.</p>	
<b>4.17 Waste management</b>	Achieved.	<p>Waste storage facilities.</p> <p>Waste Management Plan.</p> <p>Sufficient area for storage of green waste, recycling and general waste (separate)</p> <p>Communal waste storage sited and designed to be screened from view from the street, open space and private dwellings.</p>	<p>Provided and acceptable.</p> <p>Provided however insufficient. Condition to comply.</p> <p>Sufficient area provided.</p> <p>Waste storage area located to rear of Unit 2 and screened from view.</p>	
<b>4.18 Utilities</b>	Achieved.	<p>Utilities located within front setback or on visible parts of room are integrated into design.</p> <p>Developments fibre-to-premises ready.</p> <p>Hot water units, AC condenser units and clotheslines not visually obtrusive.</p> <p>Laundries are designed and located to be convenient, weather protected and</p>	<p>Condition to comply.</p> <p>Applicant advised building as per NBN requirements. Condition to comply.</p> <p>Condition to comply.</p> <p>Laundries conveniently located, weather protected and size appropriate.</p>	

		well ventilated and size appropriate.	Condition for ventilation.	
--	--	---------------------------------------	----------------------------	--

Please note that the acceptable outcomes stated above is a summary only and when considering compliance with these requirements, please refer to the full requirement as detailed in *State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments*.