

JMB
BUILDING DESIGNS
P.O Box 707, Inglewood, 6052
T: (08) 9271 8033
M: 0419 944 378
E: jason@jambd.com.au
W: www.jambd.com.au

Rev	Date	Notes
01	09.05.19	Concept 01
02	05.08.19	Issued For DA 02
03	04.11.19	Issued For DA 03

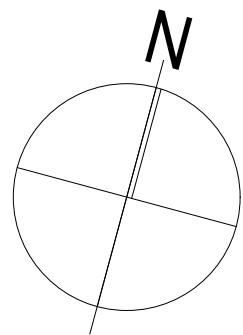
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Date :
Client :
Date :
Builder :
Date :

Client Name:
Kemstone Investments Pty Ltd
Site Address:
**Lot 957 (#4)
Cromer Grove,
Kallaroo**

Job number: 18-0593	Scale: 1:100
Drawn By: J.Magnaterra E.Funtseva	Date Drawn: 04.11.19
Revision No: 03	Sheet No: 02 OF 10
Drawing Name: SITE PLAN	





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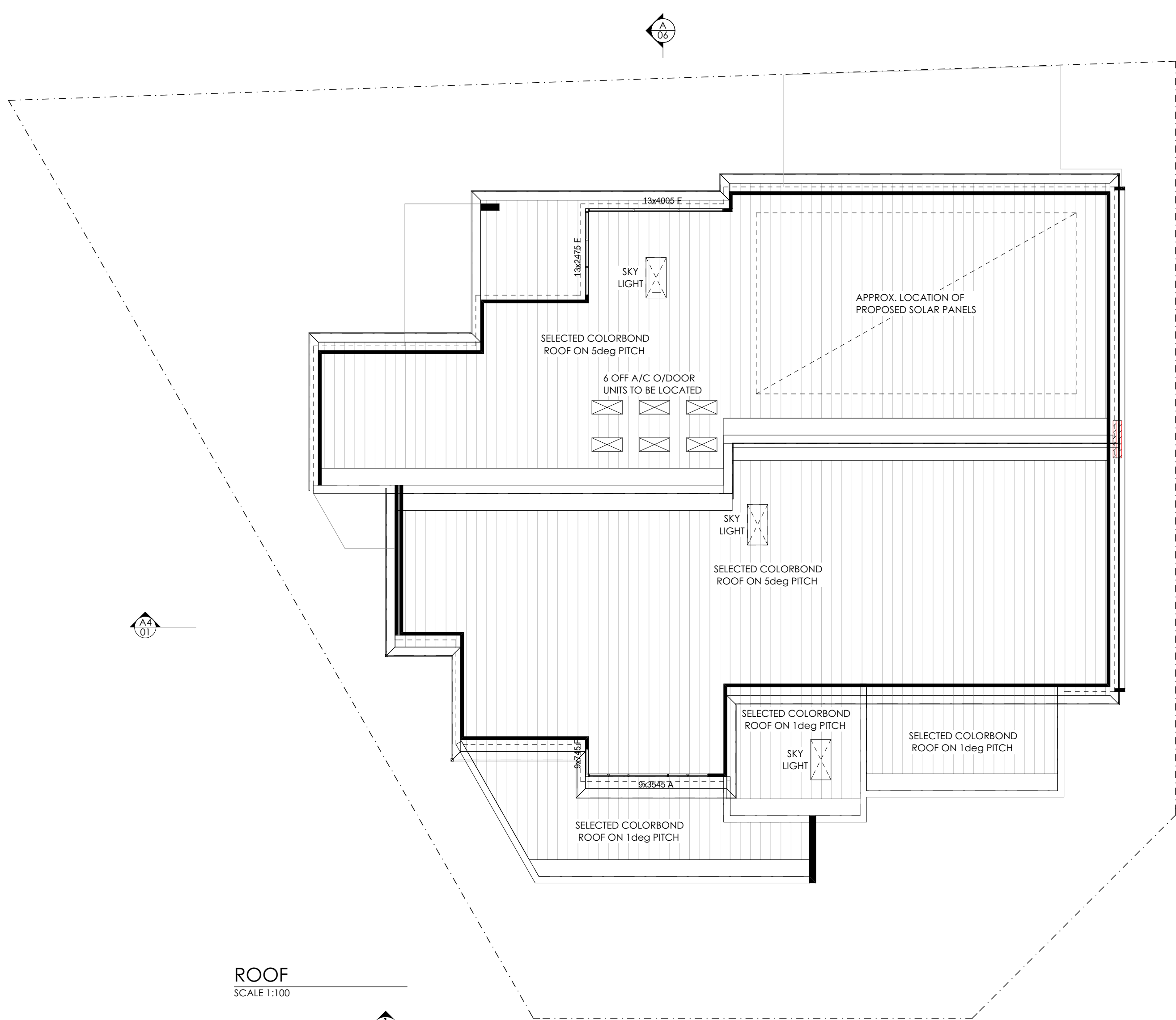
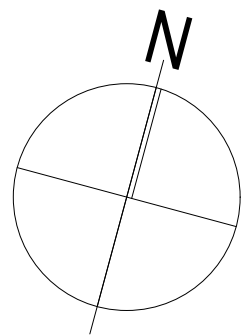
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03

Sheet No:
04 OF 10

Drawing Name:
UPPER FLOOR



ROOF
SCALE 1:100



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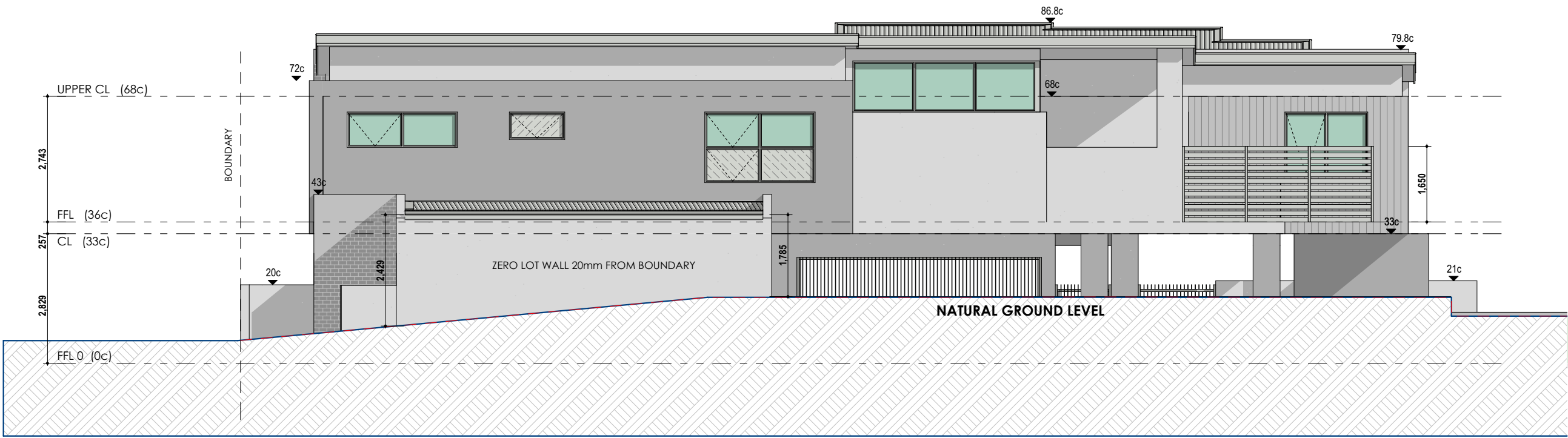
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Drawing Name: ROOF PLAN	

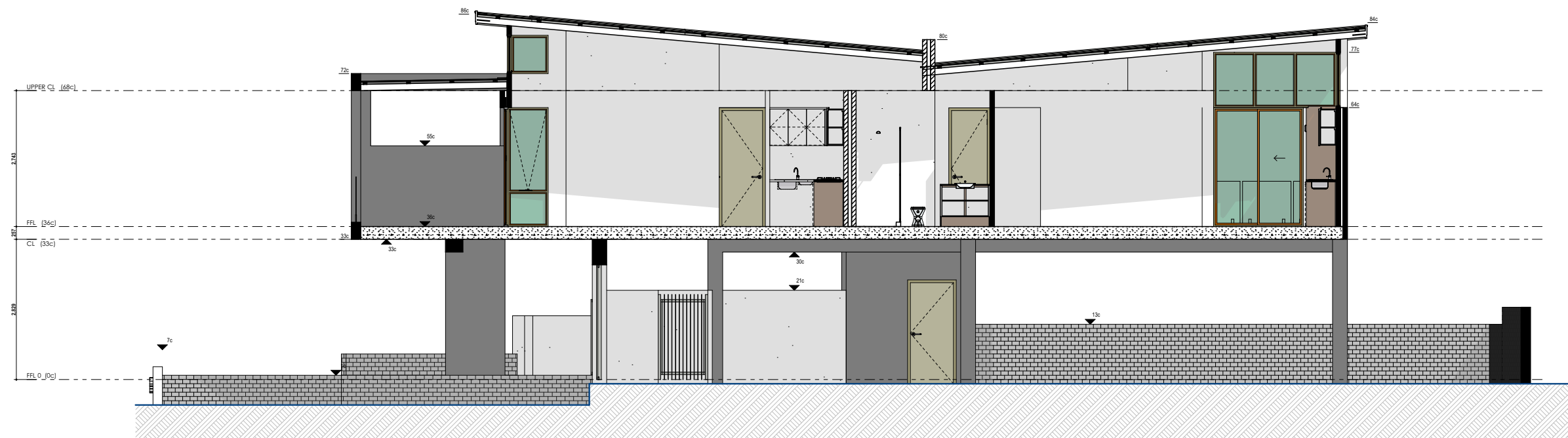




ELEVATION 3
SCALE 1:100



ELEVATION 4
SCALE 1:100



SECTION A
SCALE 1:50

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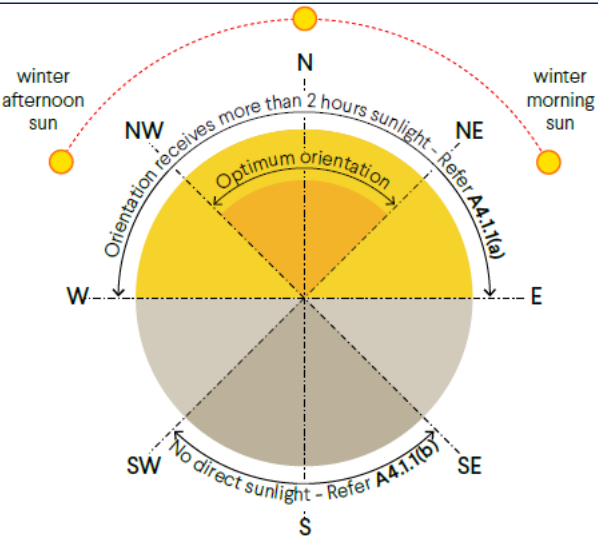
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Date : _____

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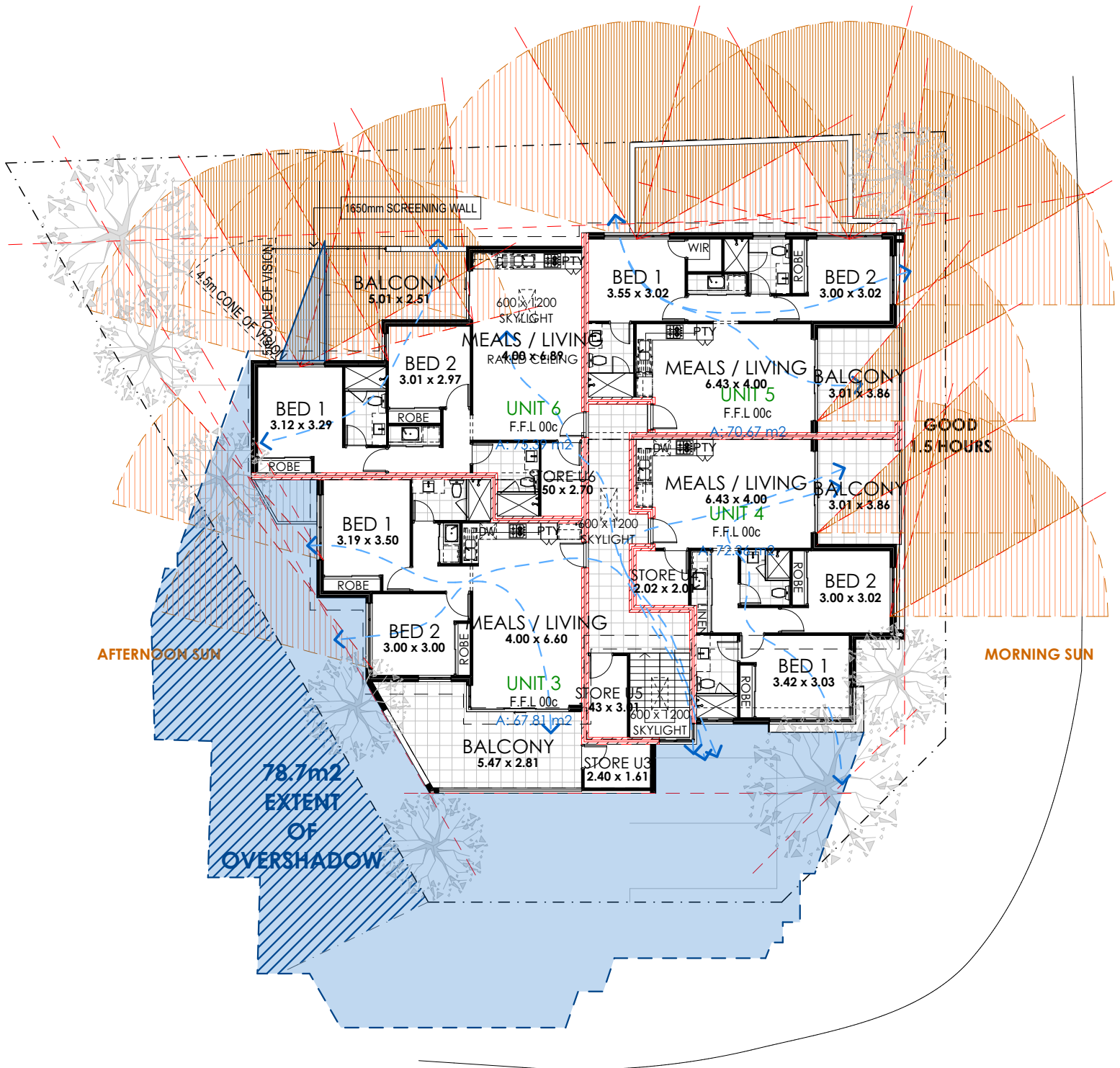
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Kallaroo

Job number: 18-0593	Scale: 1:100
Drawn By: J.Magnaterra E.Funtseva	Date Drawn: 04.11.19
Revision No: 03	Sheet No: 07 OF 10

Drawing Name:
ELEVATIONS 02




SOLAR/VENT DIAGRAM GF
SCALE 1:200



SOLAR/VENT DIAGRAM UF
SCALE 1:200

SHADOW DIAGRAM:

NEIGHBOR PROPERTY 818m²
OVERSHADOWING 78.8m²
(78.8 x 100) / 818 = 9.63%

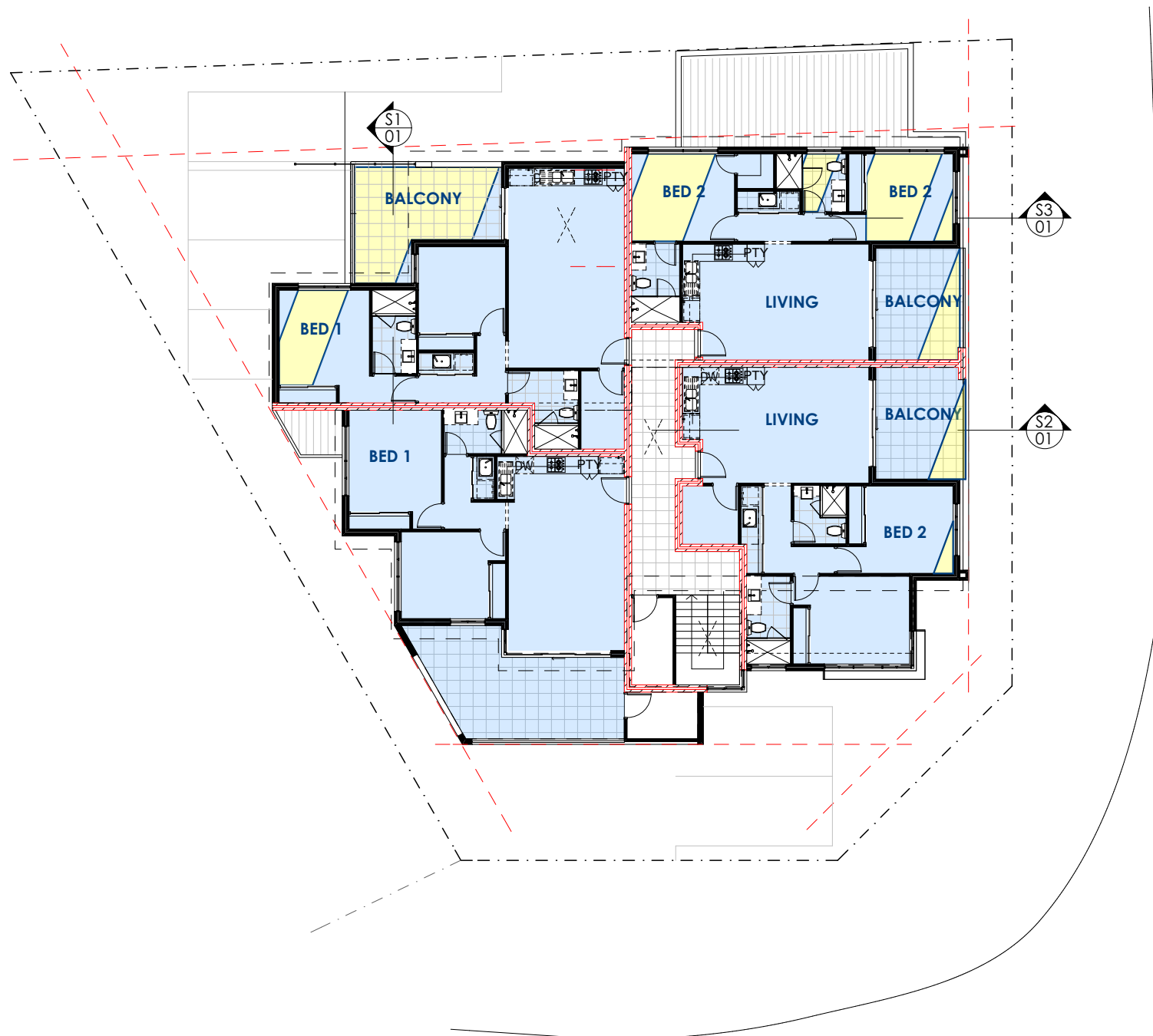
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	01	09.05.19	Concept 01			Drawn By: J.Magnaterra	Date Drawn: 04.11.19
	02	05.08.19	Issued For DA 02			Revision No: 03	Sheet No: 08 OF 10
	03	04.11.19	Issued For DA 03			Drawing Name: SOLAR/VENT DIAGRAM	



GR FL WINTER SOLSTICE 12PM
SCALE 1:200



GR FL WINTER SOLSTICE 3PM
SCALE 1:200



UP FLOOR WINTER SOLSTICE 12PM
SCALE 1:200



UP FL WINTER SOLSTICE 3PM
SCALE 1:200



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Job number: 18-0593	Scale: 1:100
Drawn By: J.Magnaterra E.Funtseva	Date Drawn: 04.11.19
Revision No: 03	Sheet No: 09 OF 10

Drawing Name:
WINTER SOLSTICE

DEVELOPMENT APPLICATION

Client Name:
Kemstone Investments Pty Ltd
Site Address:
Lot 957 (#4) Cromer Grove, Kallaroo

00	TITLE
01	3D PERSPECTIVES 1
02	SITE PLAN
03	FLOOR PLAN
04	UPPER FLOOR
05	ROOF PLAN
06	ELEVATIONS 01
07	ELEVATIONS 02
08	SOLAR/VENT DIAGRAM





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Revision No: 03	Sheet No: 01 OF 10

Drawing Name:
3D PERSPECTIVES 1



CROME GROVE, KALLAROO - MAIN ENTRY



PLANTER BEDS



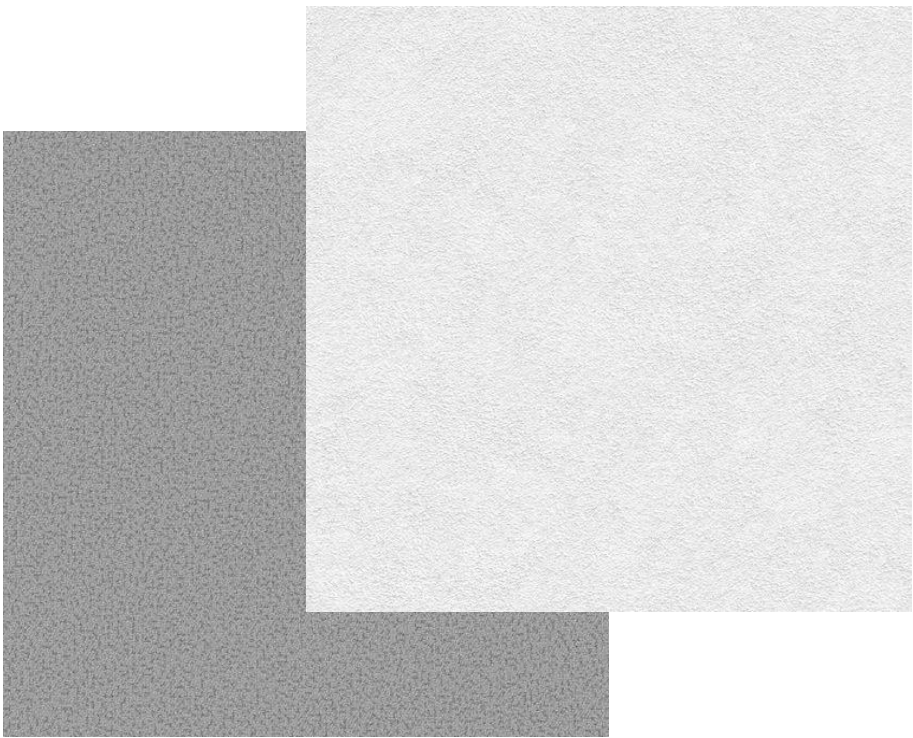
WINDOW SHROUD



1. FACE BRICK



2. JAMES HARDIE AXON CLADDING
COLORBOND



3.1 MAIN RENDER DULUX LEXICON
3.2 CONTRASTING RENDER SHALE GREY



4. DRIVEWAY PAVING

<div><div>JMBUILDING DESIGNS</div><div>P.O Box 707, Inglewood, 6052</div><div>T: (08) 9271 8033</div><div>M: 0419 944 378</div><div>E: jason@jambd.com.au</div><div>W: www.jambd.com.au</div></div>	Rev	Date	Notes	<div>This is one of the drawings referred to in the building contract.</div> <div>Client :</div> <div>Date :</div> <div>Client :</div> <div>Date :</div> <div>Builder :</div> <div>Date :</div>	<div>Client Name:</div> <div>Kemstone Investments Pty Ltd</div> <div>Site Address:</div> <div>Lot 957 (#4)</div> <div>Cromer Grove,</div> <div>Kallaroo</div>	Job number:	Scale:
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	03	04.11.19	Issued For DA 03			J.Magnaterra	04.11.19
					Revision No:	Sheet No:	Drawing Name:
					03	10 OF 10	



LOT 957, CROMER GROVE, KALLAROO
LANDSCAPE DESIGN CONCEPT



ISSUE FOR APPROVAL

SK01 - G	LANDSCAPE DESIGN CONCEPT
SK02 - G	DEEP SOIL AREA PLAN

GROUND FLOOR PLAN

INSPIRATIONAL IMAGES



200L Medium Tree

100L Small Tree

Bike rack

100L Small Tree

200L Medium Tree

Informal communal space
with seating area and
permeable pavers base.

Proposed screening hedge

Paved driveway

Courtyard

Courtyard

Proposed Street
Trees in Verge

100L Small Tree

Proposed verge
footpath

Verge Planting - Native shrub
and groundcover mix (maximum
height 600mm) with trees for
shading.

PRELIMINARY SPECIES SELECTION

TREES



Fraxinus griffithii



Gleditsia shademaker



Hymenosporum flavum



Pyrus calleryana



Ulmus parvifolia



Lagerstroemia indica

SHRUBS / GROUNDCOVERS



Adenanthos cuneatus



Alyogyne huegii



Anigozanthos flavidus



Dampiera linearis



Eremophila glabra



Dianella revoluta



Hemiandra pungens



Hibbertia hypericoides



Lomandra tanika



Kennedia prostrata



Westringia mundi



Olearia axillaris

LANDSCAPE DESIGN INTENT

- All planting beds are to be fully irrigated and operated off a timed controller with rain sensor shut-off.
- Irrigation design to comply with waterwise design principles and the City's Street Verge Guidelines. Detailed irrigation plan to be provided at building license stage.
- Water efficient irrigation system to be installed to best WSUD practice, using hydro-zoning and water harvesting principals where appropriate.
- Additional waterwise design principles employed:
 - > Low water use plant selection suited to the local soil complex.
 - > Complete omission of water intensive turf areas.
 - > Water retention soil preparation.
 - > Reduction in soil water loss through perscribing course mulch.
- Proposed plant distribution rate 4 per m2.
- Proposed plant pot sizes:
 - > Small Tree 100L
 - > Medium 200L
 - > Large Tree 500L
 - > Shrubs/groundcovers 140mm-200mm

LEGEND

- Mix of native shrubs which are suitable for the Quindalup Complex of Kallaroo with medium size feature tree.
- Small size tree with combination of native shrubs and groundcovers giving sense of welcoming to the main entrance.
- Shaded area to be planted with shade-tolerant type of plants such as Hemiandra and Kennedia prostrata.
- Variety of low and medium shrubs to provide visual interest to the courtyard area.
- Design intent to create a lush and colorful garden with variety of native species creating unique character to the space.
- All planting beds to be properly prepared to maximise water retention and installed with 100mm of course organic mulch.

DEEP SOIL AREA PLAN

LANDSCAPE AREA SUMMARIES

SITE AREA :	728 m2
DEEP SOIL AREA (DSA) REQ. @10% :	73 m2
TOTAL SITE DSA AREA PROVIDED :	156 m2
MEDIUM SIZE TREES PROVIDED :	2 Nos.
SMALL SIZE TREES PROVIDED :	4 Nos.

POLICY 7.3: RESIDENTIAL DESIGN CODES PROVISION REQUIREMENTS:

SITE AREA :	700-1000m2
MINIMUM DEEP SOIL AREA :	10 %
MINIMUM REQUIREMENT FOR TREES:	2 MEDIUM TREES
DSA REQUIREMENT FOR MEDIUM TREES:	36m2 PER TREE
DSA REQUIREMENT FOR SMALL TREES:	9m2 PER TREE

PROPOSED TREES



Fraxinus griffithii



Gleditsia shademaster



Hymenosporum flavum



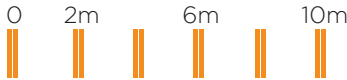
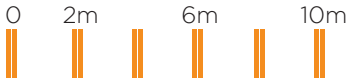
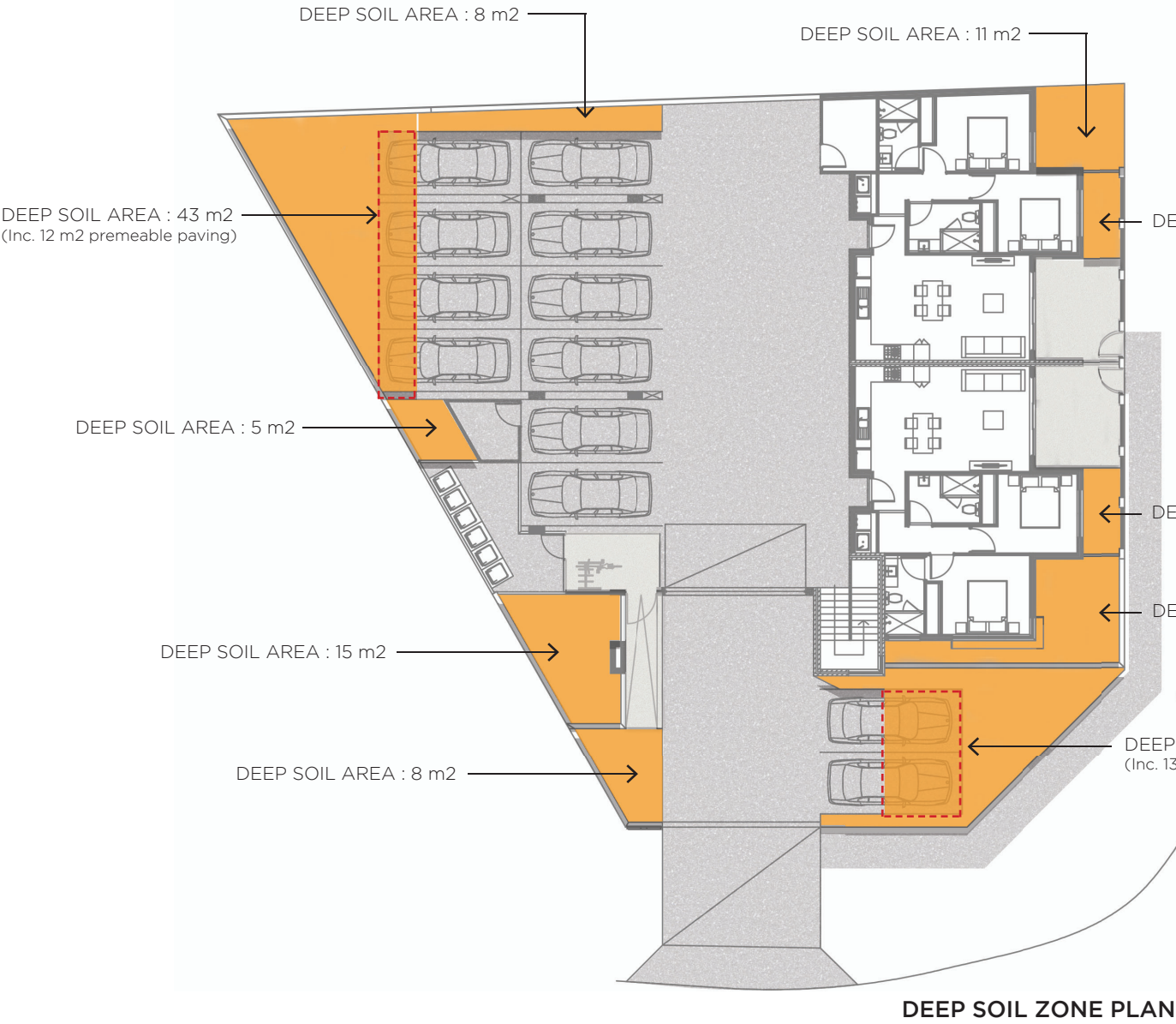
Pyrus calleryana



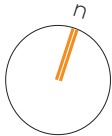
Ulmus parvifolia



Lagerstroemia indica



PERMEABLE PAVERS PRODUCTS : BRIKMAKERS
PermaDrain 220 x 110 x 60mm or similar.



CITY OF JOONDALUP

Waste Management Plan

For the Infill Development at Lot 957 (no.4)
Cromer Grove, Kallaroo

By JAM Building Designs
8/16/2019

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1.0 Objective and Background

1.1 Objective

The City of Joondalup require a Waste Management Plan (WMP) to be included as part of a development application. This WMP has been prepared to fulfill this condition.

The objective of this plan is to ensure that waste management is undertaken effectively, efficiently, and sustainably. Its purpose is to minimizing the effects on the community and the environment during both construction and operation of the development. The WMP has also been prepared to meet minimum legislative and Company requirements.

The plan addresses both design features and operational controls required to ensure that the plan can be implemented effectively.

1.2 Background

The owners of 4 Cromer Grove, Kallaroo have requested JAM Building Designs to prepare a Waste Management Plan for the proposed residential multiple dwellings development at Lot 957 #4 Cromer Grove, Kallaroo. The proposed development is located in the City of Joondalup. The building has been designed by JAM Building Designs

At the time of preparing this plan, the proposed development consisted of 6 class 2 apartments. Of the residential units, 5 are two-bedroom units with 2 bathroom each and 1 is two-bedroom unit with 1 bathroom.

The subject site is 728m² and is Zoned Residential R40.

2.0 Communication

2.1 Construction

As part of the construction phase, a waste management consultant will be appointed. All site and company waste management policies will be explained to subcontractors during contract negotiation. Details on how compliance with these policies will be achieved, will accompany the building license application. The tendering of the construction of the building and the Tender assessment scoring will be weighted in favour of contractors with waste minimization strategies.

Compliance will be managed by the Project Manager and the Developer during construction to ensure contractual obligations are met.

2.2 Occupation

The occupants of the development will be made aware of the Waste Management Plan and their responsibilities under the Plan. This document will be included in the handover pack given to the owners at time of purchase/lease.

The key objectives of the WMP will be incorporated into the Strata Management Statement to ensure waste management within the development functions effectively in perpetuity. The Body Corporate will therefore be informed of the obligations under the Strata Management Statement and ensure the waste management practices described upon approval are conveyed to successive owners in the units. This information will be included in their contract and the contracts of successive tenants. The Body Corporate's role will be to continue to inform occupants of their obligations or any modifications to the system that were approved by the City of Joondalup.

2.3 Demolition

As Demolition has the greatest potential for waste minimization; the project manager will consider whether it is possible to re-use existing buildings, or parts thereof, for the proposed use. With careful onsite sorting and storage and by staging work programs it will be possible to re-use many materials, wither on-site or off-site.

3.0 Waste Disposal

3.1 Construction

During construction, a skip bin will be provided on site for waste produced during the course of construction 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 sea container 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.

3.2 Occupation

3.2.1 Waste Flow

Waste is generated by the apartment occupiers. This waste is separated into different waste types by the occupier and transported by hand to the bin store, where it is placed in the relevant bin. The caretaker will manage the bins in the bin area to ensure one bin is full before the next one is used by the apartment occupiers. The caretaker will then present the full bins to the allocated bin presentation pads on the verge on collection day. The City of Joondalup collection service empties bins into the waste and recycling disposal truck where it is removed from site for processing.

3.2.2 Bin Storage

The bin storage area is located on the ground floor, see drawing (site plan) and (ground floor plan), set back sufficiently from the entrance to ensure it is not in public view by a screen wall of 1.8Meters high but still easily accessible for residents.

Following conversation with the City of Joondalup Waste Management Services Department, a bin storage compound has been ideally located on the South/western boundary at the rear of the development.

The bin store area will have concrete slab floor with a graded floor to a waste drain that is connected to sewer. A hose cock will also be included to facilitate washout of bins and washout of the area. The walls of the bin store will be sealed and painted in a light colour to facilitate washout. The caretaker will be responsible for washing waste and recycling the bins. The bin storage and wash down area will be constructed from concrete. It will be constructed using block work for the walls with gates. The bin store can be accessed from the car park area and lit when in use. Signage will be installed at entry/egress points stating "DANGER" and "NO STANDNG". The bin store and wash down area will be open to the air and therefore ventilated.

3.3 Demolition

It is understood that the city is seeking to move from the attitude of straight demolition to a process of selected deconstruction to allow total reuse and recycling both off-site and on-site. This may require a number of colour-coded or clearly labelled bins on-site (rather than one size fits all). The developer will ensure that the project management seeks to re-use on-site or off-site and disposal of any excess to an approved site of excavated material, green waste, bricks, tiles, concrete, plasterboard, framing timber, windows, doors, joinery, plumbing, fittings, metal elements. All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with Worksafe and EPA requirements. The tendering of the demolition of the building and the tender assessment scoring will be weighted in favour of contractors with reputable waste minimisation strategies.

4.0 Waste Management Plan

4.1 City Requirements

The City's waste minimisation storage and collection in Multi Unit Developments Policy have been provided by the City of Joondalup.

A summary of the City's minimum requirements relating to waste storage and collection in multi unit residential buildings are:

1. A Waste Management Plan detailing the waste movement through development
2. If residents share bins, then details on how and who presents these bins on collection day
3. Details on the estimated waste and recycling volumes generated / Unit
4. A **minimum** bin storage area of to 1M²/unit
5. A bin storage area that is convenient for residents and verge presentation
6. Details on verge bin presentation areas

All relevant conditions are to be addressed in order to comply with the City's Waste, Planning and Health Department requirements.

4.2 Waste Sources and Volumes Generated

This section shows how the development will deal with the following requirements specified by the City of Joondalup;

Adequate storage shall be provided to contain all general waste for weekly pickup. Recycle and green waste are alternated fortnightly.

The minimum area shall be 1 square meter per residential unit

In addition to a detailed floor plan showing the size and location of the bin storage area,

4.2.1 Residential Waste

The City of Joondalup has its own generation rates since the introduction of the 3 Bin System. These rates will be applied to the property. It will give enough capacity for all services. For simplicity, the site will receive 3 x 240 ltr General Waste bins (shared service) and 2x360 Recycling bins (shared service) and 2x240 Green Waste bins (shared service). This gives 110 ltr per week per unit for general waste, 60 ltr per week per unit recycling and 2 x240 garden waste bins for the development common garden areas.

4.3 Storage Area Required

The City of Joondalup has indicated that the bin storage areas at this development must be adequate 'to contain all waste and recycled material generated on the premises for at least 1 week.' The following calculations have been made with this condition in mind.

4.3.1 Residential waste

The current plans show 6 units in the development. The site will receive 3 x 240 ltr General Waste bins (shared service) and 2x360 Recycling bins (shared service) and 2x240 Green Waste bins (shared service) One 240-litre bin occupies a footprint of 0.45m². The total space occupied by 7 bins would be 3.15m². Allowing as much area again for access and manoeuvring bins means approximately 7m² of bins storage area would be required. Total provided is 15m²

To comply with the policy, the residential bin areas have been separated to provide for easy access for residents as a priority. The bins will be moved by the Caretaker on bin day and collected the same day. The bins will be located on nominated areas on the verge and removed after collection to be stored back in the bin store. Similar provisions allocated for white good and skip bin collection, which is available to all residence thought out the year through city of Joondalup.

4.4 Movement of Waste within the Development

The plans illustrate that a clear pathway can be made from the outside of the building. The location of the bin storage area is out of view to the street as required by the residential Design Codes 2010, and is located in a convenient location for future residents.

The location of the bin storage area is located at the front of the development. This is for the ease of the caretaker in moving the bins onto the verge for weekly collection. The location is within reasonable distance for all residents to dispose of waste.

The volumes created by residential dwellings in a multiple dwelling format are considered to be 1/3 of a single dwelling or between 4-7Kg week per unit and 3 Kg per week for recycling. The City of Joondalup.

- Processes all comingled recyclable product,
- Implements community education programs that has increased recyclable recovery an
- Understands that this 3kg average occupies a significantly greater volume than MSW,

There is, therefore, a greater demand for yellow top recycle bins. The final ratio of MSW to recycle bins can be amended if the residents generate greater recyclable volumes than the Australian estimates and require more recycle and less MSW bins.

The plans demonstrate bin storage of over 1m² per unit. Bin presentation pads are indicated on the associated site plan indicating that 3 x 240-litre rubbish bins and 2 x 360-litre recycling bins and 2 x 240-litre green waste can be collected from the verge on collection day.

5.0 Waste management Plan Summary – Residential Waste

As there are 6 residential units, the bin storage area is designed to 15m². There is adequate bin collection area located on the verge with a management strategy for the requirement of a caretaker to be commissioned with the responsibility of removing and replacement of bins on collection day.

The proposed Strata Management Statement will form part of the Strata Title for this development. It will incorporate this Waste Management Plan and any changes to this plan must be approved by the City of Joondalup.

State Planning Policy 7.0 Design of The Built Environment Design Principles			Objective Achieved
1	Context and Character	Good design responds to and enhances the distinctive characteristics of a local area contributing to a sense of place	Achieved
	<u>Response</u> The design is considered to respond to the local characteristics of the area, and be a suitable addition for the area. The design proposes a scale that is not dissimilar to the two storey dwellings within the immediate locality. The front elevation has purposely been designed to mimic the single houses within the streetscape. The façade colour palette and design has also been updated to reference to comments made by the City's Design Review Panel.		
2	Landscape quality	Good design recognises that together landscape and buildings operate as an integrated and sustainable system within a broader ecological context	Achieved
	<u>Response</u> The design proposes and will provide landscaping as required by the City's planning framework and is considered to be suitable for the local area and bring in much needed housing diversity.		
3	Built form and scale	Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.	Achieved
	<u>Response</u> The design proposes a scale and built form similar to that already evident in other multiple dwelling developments in the local area. The development is congruent with the permissible and desired built form allowable by the City and its planning framework. Furthermore, the streetscape and locality exists with two storey dwellings which are of a similar bulk and scale to the streetscape.		
4	Functionality and build quality	Good design meets the needs of uses efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.	Achieved
	<u>Response</u> It is considered that the proposed design provides the required building services and design features and is capable of being reused or repurposed in the future. In doing so it is considered that the proposed design will meet the needs and functional requirement of future residents.		
5	Sustainability	Good design optimises the sustainability of the built environment, delivering positive environmental, social, and economic outcomes.	Achieved
	<u>Response</u> The design increases housing density in a high amenity area which is well serviced, which in turn reduces environmental stress, social stress, and economic burden evident in low amenity fringe suburb development.		
6	Amenity	Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.	Achieved
	<u>Response</u> The design contributes to and provides an appropriate degree of amenity. It is considered that the development will contribute to the high amenity evident in the local area including those described previously in this document.		

7	Legibility	Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.	Achieved
	<u>Response</u> The proposed design is low scale (six multiple dwellings) and presents a better outcome by contrast to a grouped dwelling development for the same site, which would have an excessive building footprint, limited open space, and provide limited opportunity for landscaping or greenery. The site is clearly legible with clearly defined buildings and provides easily identifiable building elements.		
8	Safety	Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.	Achieved
	<u>Response</u> The proposed design creates a sense of ownership and enclosure and helps to contribute to defensible space. The design does not expose itself to the street by virtue of risk, nor propose a design which is contrary to the objectives of Crime Prevention Through Environmental Design. The design is considered to achieve the design objective of safety.		
9	Community	Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.	Achieved
	<u>Response</u> The design is considered to be of a “human scale” and provides ample opportunity for interaction between residents, and with the streetscape and local area. There are ample opportunities for community interaction.		
10	Aesthetics	Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.	Achieved
	<u>Response</u> The design is considered to provide an appropriate degree of aesthetic quality throughout. The design includes on-structure landscaping and a varied and complementary materials and colour palette.		

Element Objective	Comment
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. O 2.2.2 The height of buildings within a development responds to changes in topography. O 2.2.3 Development incorporates articulated roof design and/or roof top communal open space where appropriate. 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.	<p>Considered achieved</p> <p>The proposed height is consistent with the primary controls contained within Table 2.1 therefore, the element objective has been achieved.</p>
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. O 2.3.2 The street setback provides a clear transition between the public and private realm. O 2.3.3 The street setback assists in achieving visual privacy to apartments from the street. O 2.3.4 The setback of the development enables passive surveillance and outlook to the street.	<p>Considered achieved</p> <p>The proposed street setbacks are consistent with the primary controls contained within Table 2.1 therefore, the element objective has been achieved.</p>
2.4 Side and rear setbacks 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.	<p>Considered achieved</p> <p>The proposed side and rear setbacks are consistent with the primary controls contained within Table 2.1 therefore the element objective has been achieved.</p>
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.	<p>Considered achieved</p> <p>The proposed plot ratio is consistent with the primary controls contained within Table 2.1 therefore, the element objective has been achieved.</p>

Element Objective	Comment
2.6 Building depth 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.	<p>Considered achieved</p> <p>The proposed building depth is consistent with the acceptable outcome therefore, the element objectives have been achieved.</p>
2.7 Building separation 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.	<p>Considered achieved</p> <p>The proposed building separation is consistent with the acceptable outcome therefore, the element objective has been achieved.</p>
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. 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.	<p>Considered achieved</p> <p>As detailed on the proposed plans, the design responds to the site features such as being located on a corner lot. As such, the design fronts both streets (primary and secondary) which in turn optimises solar and daylight access within each of the multiple dwellings. This has been appropriately demonstrated on the solar and ventilation plan, with unit 3 not receiving exceptional sunlight, which is a suitable outcome with the orientation of the site. Despite unit 3 not receiving optimum sunlight it serves as an essential multiple dwelling as it aids in framing the streetscape of Cromer Grove.</p> <p>The proposed plans illustrates acceptable overshadowing whereby it does not adversely impact the adjoining properties access to natural sunlight for habitable rooms.</p>
3.3 Tree canopy and deep soil areas O 3.3.1 Site planning maximises retention of existing healthy and appropriate trees and protects the	<p>Considered achieved</p>

Element Objective	Comment
<p>viability of adjoining trees.</p> <p>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.</p> <p>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.</p>	<p>The proposal includes deep soil planting areas. The specie type and location of planting has been established by suitably qualified landscape designer.</p> <p>The proposed specie types are sympathetic to the existing locality and enhance the façade of the development on the streetscape. The City's Design Review Panel responded positively to the landscape design.</p>
<p>3.4 Communal open space</p> <p>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.</p> <p>O 3.4.2 Communal open space is safe, universally accessible and provides a high level of amenity for residents.</p> <p>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.</p>	<p>Considered achieved</p> <p>A small informal seating area is proposed on the street corner element. This provides a space to relax amongst the proposed heavily landscaped front setback area. It also provides a unique location for residents within the street and the proposed multiple dwellings to have incidental interaction which is the core of creating a community.</p> <p>Furthermore, all outdoor living areas are appropriately sized to facilitate landscaping, and active outdoor recreation for the typology of the dwellings.</p>
<p>3.5 Visual privacy</p> <p>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.</p>	<p>Considered achieved</p> <p>All balconies with the exception of unit 6 face the primary and secondary street to avoid direct overlooking into adjoining properties. Unit 6 has been adequately screened to prevent direct overlooking. The screening will not restrict sunlight or ventilation into the balcony area as it is proposed to be slates which allows sunlight penetration and there is enough distance between the screening and roof to facilitate ventilation. Furthermore, a portion of the balcony is not screened which meets the objectives and enables enhanced amenity to unit 6.</p>
<p>3.6 Public domain interface</p> <p>O 3.6.1 The transition between the private and public domain enhances the privacy and safety of residents.</p> <p>O 3.6.2 Streetfacing development and landscape design retains and enhances the amenity and safety of the adjoining public domain, including the provision of shade.</p>	<p>Considered achieved</p> <p>Entries are proposed along both street frontages creating an interactive frontage whilst also providing separation between the public and private domain.</p> <p>Landscaping is proposed within the front setback area.</p>

Element Objective	Comment
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. O 3.7.2 Entries to the development connect to and address the public domain with an attractive street presence.	<p>Considered achieved</p> <p>Entries are proposed along both street frontages and are easily identifiable.</p>
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. O 3.8.2 Vehicle access points are designed and located to reduce visual impact on the streetscape.	<p>Considered achieved</p> <p>The proposed access point is considered appropriate as it complies with the Australian Standards.</p> <p>The entry is concealed with a roller door which is consistent with a single dwelling design to be congruent with the locality.</p>
3.9 Car and bicycle parking O 3.9.1 Parking and facilities are provided for cyclists and other modes of transport. O 3.9.2 Car parking 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.	<p>Considered achieved</p> <p>Bicycle parking is provided at the main entry of the development.</p> <p>The proposed car parking is considered sufficient as the site is within 1km of the beach and foreshore reserves, and within 150m of the Whitford City Shopping Centre, and Whitfords Avenue — which includes high-frequency public transport options. Further, the site is within 3km of Mitchell Freeway which provides private vehicle and rail access to employment centres including the Perth CBD.</p> <p>The site is also near several high frequency (as described in the R-Codes) bus routes including routes 441, 442, 460, 461, 462, and 463. These routes service stops including Whitfords train station and provide easy and convenient services to a wide range of Perth destinations. These routes are accessible from Whitfords Avenue, less than 150m from the site, accessible via a Pedestrian Access Way. There is also convenient access to the railway network, CBD, and other employment centres.</p>
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 dwellings receiving winter sunlight to private open space and via windows to habitable rooms.	<p>Considered achieved</p> <p>The proposed design and layout for the multiple dwellings permit solar and daylight access into the</p>

Element Objective	Comment
<p>O 4.1.2 Windows are designed and positioned to optimise daylight access for habitable rooms.</p> <p>O 4.1.3 The development incorporates shading and glare control to minimise heat gain and glare:</p> <ul style="list-style-type: none"> — from mid-spring to autumn in climate zones 4, 5 and 6 AND <p>year-round in climate zones 1 and 3.</p>	<p>habitable rooms as demonstrated on the solar and ventilation plans.</p> <p>The objectives relate to optimisation of sunlight. It is noted that unit 3 does not achieve direct winter sunlight during all hours of the day due to the orientation of the site. However, the dwelling does have optimise sunlight through major openings front Cromer Grove and is an essentially multiple dwelling to frame the streetscape. Therefore the overall development exceeds the objectives as the remaining five dwellings have optimised natural sunlight on a difficult orientation.</p>
<p>4.2 Natural ventilation</p> <p>O 4.2.1 Development maximises the number of apartments with natural ventilation.</p> <p>O 4.2.2 Individual dwellings are designed to optimise natural ventilation of habitable rooms.</p> <p>O 4.2.3 Single aspect apartments are designed to maximise and benefit from natural ventilation.</p>	<p>Considered achieved</p> <p>Natural ventilation and cross ventilation are maintained within each of the dwellings as per the proposed sunlight and ventilation plans.</p>
<p>4.3 Size and layout of dwellings</p> <p>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.</p> <p>O 4.3.2 Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good natural ventilation and daylight access.</p>	<p>Considered achieved</p> <p>The internal size and layout of the dwellings are functional and are appropriately sized to hold household furniture. The habitable rooms are spacious with the minimum dimensions of the bedrooms being 3m and the living rooms 6.63m.</p> <p>The ceiling heights are also increased to optimise proportions and ventilation of the dwellings.</p>
<p>4.4 Private open space and balconies</p> <p>O 4.4.1 Dwellings have good access to appropriately sized private open space that enhances residential amenity.</p> <p>O 4.4.2 Private open space is sited, oriented and designed to enhance liveability for residents.</p> <p>O 4.4.3 Private open space and balconies are integrated into the overall architectural form and detail of the building.</p>	<p>Considered achieved</p> <p>Each balcony and courtyard are sufficiently sized to accommodate outdoor furniture for their associated multiple dwelling. Each area accommodates natural sunlight as illustrated on the proposed plans.</p> <p>The balconies and courtyards have been positioned towards the primary and secondary street frontages to provide interest to the facades and also passive surveillance to the street.</p>
<p>4.5 Circulation and common spaces</p> <p>O 4.5.1 Circulation spaces have adequate size and capacity to provide safe and convenient access for all</p>	<p>Considered achieved</p>

Element Objective	Comment
<p>residents and visitors.</p> <p>O 4.5.2 Circulation and common spaces are attractive, have good amenity and support opportunities for social interaction between residents.</p>	<p>There is sufficient circulation within the site as demonstrated on the proposed plans, which are compliant with the Australian Standards.</p> <p>The communal seating area on the corner element of the site will allow incidental social interaction between the future residents of the development and their neighbours within the streetscape which provides a solid basis of creating and maintaining a positive community.</p>
<p>4.6 Storage</p> <p>O 4.6.1 Well-designed, functional and conveniently located storage is provided for each dwelling.</p>	<p>Considered achieved</p> <p>Storage is provided for each dwelling and is considered appropriate based on the size of each multiple dwelling.</p>
<p>4.7 Managing the impact of noise</p> <p>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.</p> <p>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.</p>	<p>Considered achieved</p> <p>The dwellings have been orientated towards the street frontages to minimise the impact of noise. Unit 6 faces north and is the only dwelling which does not front the primary or secondary street. However, this dwelling has a separation of at least 3 metres to the adjoining boundary, which will offset any residential noise which may occur from the multiple dwelling.</p>
<p>4.8 Dwelling mix</p> <p>O 4.8.1 A range of dwelling types, sizes and configurations is provided that caters for diverse household types and changing community demographics.</p>	<p>Considered achieved</p> <p>A majority of multiple dwellings are proposed to be two bedrooms and two bathrooms, with two dwellings having one bathroom. Whilst the dwelling mix onsite is not significantly diverse, the development itself provides a mix of dwellings in this locality which exists with traditional single dwellings, grouped dwellings and multiple dwellings.</p> <p>This type of dwelling is accommodating the changing community for downsizers and first home buyers given its prominent location within proximity to a main shopping centre and high frequency public transport.</p> <p>Furthermore, two bedroom multiple dwellings allows for greater adaptability as the second bedroom can be used as a study, bedroom, nursery or an incidental development.</p>
<p>4.9 Universal design</p>	<p>Considered achieved</p>

Element Objective	Comment
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.	The ground floor dwellings are appropriate for persons with mobility issues, as they have been designed with no steps.
4.10 Façade design O4.10.1 Building façades incorporate proportions, materials and design elements that respect and reference the character of the local area. O4.10.2 Building façades express internal functions and provide visual interest when viewed from the public realm.	Considered achieved The proposed façade design includes a number of varying materiality and colour inclusive of, face brick, two tone render, setbacks, landscaping and varying window treatments. These are all representational of the existing housing stock within this locality, which in turn forms part of the character. The façade design has been peer reviewed by the City's Design Review Panel and has received positive feedback.
4.11 Roof design O4.11.1 Roof forms are well integrated into the building design and respond positively to the street. O4.11.2 Where possible, roof spaces are utilised to add open space, amenity, solar energy generation or other benefits to the development.	Considered achieved The proposed roof design reduces the overall bulk and scale of the development. This type of roof form is also consistent with other developments along Wingala Grove and Cromer Grove. This is sympathetic with the locality.
4.12 Landscape design O4.12.1 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. O4.12.2 Plant selection is appropriate to the orientation, exposure and site conditions and is suitable for the adjoining uses. O4.12.3 Landscape design includes water efficient irrigation systems and, where appropriate, incorporates water harvesting or water re-use technologies. O4.12.2 Landscape design is integrated with the design intent of the architecture including its built form, materiality, key functional areas and sustainability strategies.	Considered achieved The proposed landscaping has been undertaken by a qualified landscape designer. The plant species along with the specified locations assist in framing the development to the street frontages, whilst also softening the internal ground floor areas. All landscaped areas will be appropriately irrigated, and a condition of approval is welcomed.
4.13 Adaptive reuse O4.13.1 New additions to existing buildings are contemporary and complementary and do not detract from the character and scale of the existing building. O4.13.2 Residential dwellings within an adapted building provide good amenity for residents, generally in accordance with the requirements of this policy.	Considered achieved The proposal is within an existing residential area and adaptive re use into a commercial development is unlikely within this locality. However, the dwellings can be adapted, particularly the ground floor, to accommodate ageing in place with minor configurations in the future. Furthermore, two bedroom dwellings have a higher rate of adaptability

Element Objective	Comment
	as the second bedroom can be used as a study, nursery or incidental use into the future.
4.14 Mixed use O4.14.1 Mixed use development enhances the streetscape and activates the street. O4.14.2A 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.	Considered achieved The proposal is not seeking a mixed use development.
4.15 Energy efficiency O4.15.1 Reduce energy consumption and greenhouse gas emissions from the development.	Considered achieved The orientation of the development along with the capabilities of cross ventilation will reduce reliance on self-heating and cooling systems within the multiple dwellings. In turn this will reduce greenhouse gas emissions and energy assumption. The development also proposed the installation of solar panels which will reduce energy consumption on the grid by switching to a renewable energy source.
4.16 Water management and conservation O4.16.1 Minimise potable water consumption throughout the development. O4.16.2 Stormwater runoff from small rainfall events is managed on-site, wherever practical. O4.16.3 Reduce the risk of flooding so that the likely impacts of major rainfall events will be minimal.	Considered achieved Matters relating to water management will be dealt with at the building permit stage in accordance with the building requirements.
4.17 Waste management O4.17.1 Waste storage facilities minimise negative impacts on the streetscape, building entries and the amenity of residents. O4.17.2 Waste to landfill is minimised by providing safe and convenient bins and information for the separation and recycling of waste.	Considered achieved The proposal includes a bin store area to the specifications of the City.
4.18 Utilities O4.18.1 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. O4.18.2 All utilities are located such that they are accessible for maintenance and do not restrict safe movement of vehicles or pedestrians.	Considered achieved All utilities have been illustrated on the proposed plans. Each multiple dwelling will have access to essential services and will not be visible from the primary and secondary streets.

Element Objective	Comment
<p>O4.18.3 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.</p> <p>O4.18.4 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.</p>	

Kind regards,

Jason Magnaterra

Director, JAM Building Designs

City of Joondalup

SPP 7.3 assessment summary

The detail highlighted in red has been identified as not achieving the suggested requirements under the acceptable outcome.

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
2.2 Building height	Achieved.	2 storeys (9m)	2 storeys (<9m)	No design guidance provided.
2.3 Street setbacks	Achieved.	Replaced by RDLPP: 2m minimum 4m average	5.8m minimum at ground floor (GF), 4m at upper floor (UF). >4m avg achieved	No design guidance provided.
		1.5m to secondary street	1.5m at GF and UF	
		1.5m to corner truncation	3.2m at GF, 2.8m at UF	
2.4 Side and rear setbacks	Achieved.	Side: 2m minimum 2.4m average	2m minimum 3.85m average	No design guidance provided
		Rear: 3m minimum	Nil (boundary wall) 3.2m min for remainder of the building	
		Where a boundary wall is proposed (as per RDLPP): 11.01m length 3.5m maximum height 3.0m average height	Boundary wall (proposed on rear boundary): 8.195m length 2.9m max. height 2.3m av. height	
		And/or Greater setback required for visual privacy. (A2.4.1)	Visual privacy setbacks achieved.	
		Achieve objectives of 2.7, 3.3, 3.5 and 4.1. (A2.4.2)	Objectives of 2.7, 3.3, 3.5 and 4.1 are achieved	
2.5 Plot ratio	Achieved.	0.6 (437.02m ²) (A2.5.1)	0.601 (437.83m²)	No design guidance provided
2.6	Achieved	20m for single aspect apartments (A2.6.1)	No single aspect apartments	No design guidance provided.

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
Building depth		Other proposals assessed on merits having regard to solar and daylight access, and natural ventilation.	Solar and daylight access, and natural ventilation achieves element objectives	
2.7 Building separation	Achieved	Meets side and rear setbacks and visual privacy	Meets element objectives for side, rear and visual privacy setbacks	No design guidance provided
3.2 Orientation	Achieved	Buildings on street orientated to face public realm and incorporate direct access from the street	Building is orientated to the public realm and incorporates direct street access	Satisfied
		Shadow cast at midday on 21 st June onto any adjoining property does not exceed 25% (A3.2.3)	13.15%	
		Buildings orientated to maintain 4 hours per day for existing solar collectors on neighbouring site.	N/A – no solar collectors on adjoining site.	
3.3 Tree canopy and deep soil areas	Achieved	Retention of trees	N/A- Trees on site not within criteria	Satisfied
		No detrimental impacts on canopy of adjoining trees	No detrimental impacts on canopy of adjoining trees	
		Deep soil area of 10% and provided conducive to tree growth and suitable for communal open space	Deep soil area 15% and provided conducive to tree growth and portion suitable for communal open space (noting that no formal communal open space is required based on the number of dwellings)	
		Two medium trees or one large tree and small trees to suit area	Two medium trees and four small trees	
		Medium trees require 36sqm deep soil area (A3.3.5)	Medium tree deep soil area 27sqm and 37sqm	
		Permeable paving or decking within deep	<20% in each area	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		soil not exceed 20% of its area and not inhibit trees		
3.4 Communal open space	Achieved	Informal seating associated with deep soil or landscaped areas	Informal seating provided within deep soil area adjacent to the truncation of the lot	Satisfied.
		Located on ground floor	Located on ground floor	
		50% direct sun	>50% direct sun	
		Co-located with deep soil areas	Co-located with deep soil areas	
		Separated or screened from adverse amenity impacts (A3.4.5)	Located adjacent to visitor carparking area with no screen	
		Well lit, minimises concealment and open passive surveillance	Design has minimised concealment and open passive surveillance. A condition of approval is recommended should it the application be approved to require lighting to driveways, pedestrian pathways and common service areas.	
3.5 Visual privacy	Achieved	Visual privacy setbacks (A3.5.1)	Setbacks in accordance with Table 3.5 are provide	Satisfied
		Balconies unscreened at least 25%	Unit 6 balcony unscreened 22%	
		Living rooms have external outlook	All living rooms have major opening with external outlook	
		Windows and balconies restrict direct overlooking, without reliance on high sill windows or permanent screening. (A3.5.4)	The development does not rely on high sill windows or permanent screening to windows and balconies.	
3.6 Public domain interface	Achieved	Ground floor dwellings direct access from street	Direct access from street provided to ground floor units	Satisfied
		Car-parking not located within primary street	Visitor parking is located within primary street setback area	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		setback area (A3.6.2)		
		Balconies and/or windows overlook public domain	Balconies and/or windows overlook public domain	
		Balustrading provides privacy for residents and surveillance of adjoining public domain	Balustrading achieves privacy for residents and surveillance of public domain	
		Level changes to the street: 1m average 1.2m maximum	Level changes to the street: <1m <1.2m	
		Front fencing visually permeable above 1.2m	No fencing to the primary street is proposed. Secondary street fencing visually permeable above 1.2m	
		Elements on frontage eliminate opportunities for concealment	Elements on frontage eliminate opportunities for concealment	
		Bins not located within primary street setback area	Bins located outside primary street setback area	
		Services and utilities located within primary street setback area integrated into the development	Gas and water meters located within street setback area integrated into the landscaping elements.	
3.7 Pedestrian access and entries	Achieved	Pedestrian entries connected	Pedestrian entries are connected	Satisfied
		Pedestrian entries protected from weather	Canopy provided	
		Pedestrian entries well-lit, visible from public domain and enable casual surveillance	Pedestrian entry is visible from public domain and enables casual surveillance	
		Pedestrian access via shared zone, path is clearly delineated and/or incorporated to	Path provided in carpark that is clearly delineated	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		prioritise pedestrian and constrain vehicle speed		
		Services and utilities located at pedestrian entry are screened from view	No services and utilities located at pedestrian entry	
		Bins not located at primary pedestrian entry	Bins located to side of development and concealed from primary entry	
3.8 Vehicle access	Achieved	Vehicle access - one opening per 20m	One vehicle access point	Satisfied
		Vehicle entries identifiable from the street, integrated with façade and/or located behind primary building line	Vehicle entry is identifiable and suitably integrated with the overall façade.	
		Vehicle entries have adequate separation from street intersection	Adequate separation provided	
		Vehicle circulation areas avoid headlights shining into habitable rooms within the development and adjoining properties	Vehicle circulation areas appropriate	
		Driveway width minimum for functionality	Driveway is functional with six metre width provided	
		Driveway designed for two-way access	Driveway permits two-way access	
		Replaced by City's RDLPP clause 6.2.3. Pillars/structures in truncation area to be no greater than 350mm in dimension and solid walls no greater than 750mm in truncation area	0.75m high wall adjacent to driveway	
3.9 Car and bicycle parking	Achieved	4 secure, undercover bicycle parking spaces and accessed via a continuous path of travel from the entry	4 spaces available on ground floor, adjacent resident parking and pedestrian entry to development	Satisfied

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		8 (7.5) resident car parking bays; and 2 visitor car-parking bays (A3.9.2)	10 resident bays; and 2 visitor parking bays	
		Maximum parking provision does not exceed double the minimum (16)	Less than double the minimum	
		Car parking areas and vehicle circulation areas designed in accordance with AS2890.1	Car parking and circulation as per AS2890.1	
		Carparking areas not located within street setback and not visually prominent from the street (A3.9.5)	2 visitor parking bays are located within the street setback area, partially screened by proposed hedge	
		Car parking designed, landscaped or screened to mitigate visual impacts when viewed from the dwellings and private outdoor spaces (A3.9.6)	Visitor parking bays are indirectly visible from bedroom 1 of Unit 1	
		Visitor parking clearly visible from driveway, signed and accessible	Visitor parking is visible and accessible	
4.1 Solar and daylight access	Achieved	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)	83.4% of dwellings obtaining 2 hours direct sunlight; and one dwelling (16.6%) receiving no direct sunlight	Satisfied
		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	Windows provided >10% of floor area with minimum 50% clear glazing	
		Light wells and/or skylights not primary	Not primary source	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		source of daylight to any habitable room		
		Building orientated and incorporates external shading devices	Shading devices provided	
4.2 Natural ventilation	Achieved	Habitable rooms have openings on at least two walls with straight line distance 2.1m	Each dwelling provides a minimum distance of 2.1m between two openings	Satisfied
		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.	All units have cross ventilation	
		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	
4.3 Size and layout of dwellings	Achieved	Dwellings internal floor areas as per Table 4.3a.	Adequate internal floor spaces provided.	Satisfied
		Habitable room floor areas as per Table 4.3b	Minimum room floor areas provided	
		Floor to ceiling height 2.7m for habitable rooms, 2.4m for non-habitable rooms, and other as per National Construction Code	Ceiling height 2.7minimum	
		Maximum length of single aspect open	No single aspect dwelling	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		plan living area 9m (A4.3.4)		
4.4 Private open space and balconies	Achieved	Private open space to each dwelling as per Table 4.4	Each unit exceeds requirement of Table 4.4	Satisfied
		Entire open space not screened, and screening does not obscure outlook	22% of balcony to Unit 6 is unscreened	
		Design detailing, materiality and landscaping of the private open space integrate with/compliments building. Services and fixtures located within private open space not visible from street/integrated into building design	Design compliments building	
4.5 Circulation and common spaces	Achieved	Circulation corridor 1.5m minimum	1.1m minimum (stairwell), otherwise 1.5m provided	Satisfied.
		Circulation and common space capable of passive surveillance	Passive surveillance of circulation space achieved from entry doors to units and of the street with full height windows	
		Circulation and common spaces lit without light spill to habitable rooms.	No major openings to habitable areas face circulation and common spaces	
4.6 Storage	Achieved	Store sizes as per Table 4.6. Minimum dimension 1.5m and 4m ² .	Store sizes acceptable with exception of: Units 3 (3.9m ²) and Unit 5 (1.43m dimension).	Satisfied DG4.6.4: Store areas are considered to be wide enough to accommodate larger and less frequently access items
		Stores conveniently located, safe, well-lit, secure and subject to passive surveillance	Stores acceptable	
		Stores provided separately from dwellings or within or adjacent to private	Unit 4 and Unit 6 stores accessible from within the dwelling	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		open spaces (A4.6.3)		
4.7 Managing the impact of noise	Achieved	Exceed National Construction Code requirements	The development is required to comply with the National Construction Code requirements and will be confirmed as part of the building permit application. Applicant has not demonstrated that they will be exceeding these requirements.	Satisfied
		Potential noise sources not adjacent external wall habitable room or within 3m of bedroom (A4.7.2)	Noise sources setback from external wall to habitable room and >3m from bedrooms	
		Major openings oriented away/shielded from external noise sources	Major openings located away from AC units, bin stores and parking area	
4.8 Dwelling mix	Achieved	Acceptable Outcome is not applicable as less than 10 dwellings are proposed	One unit has two bedrooms one bathroom and the remaining have two bedrooms and two bathrooms	Satisfied
4.9 Universal design	Achieved.	20% of dwellings achieve Silver Level requirements as defined in the <i>Liveable Housing Design Guidelines</i> , or 5% achieve Gold Level requirements	Units 1 and 2 designed to achieve Silver Level requirements. Development plans indicate wider corridor widths and bathroom/toilet designed to meet requirements. Should the development be approved a condition of approval is recommended to ensure the more detailed criteria to achieve the Silver Level requirements are met (eg. height for light switches)	Satisfied

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
4.10 Façade design	Achieved	Façade design includes scaling, articulation, materiality and detailing at lower levels that reflect the scale, character and function of the public realm. The façade design provides rhythm and interest achieved by a combination of building articulation, the composition of different elements and changes in texture, material and colour.	Building design and finishes include render, with feature brickwork and cladding	Satisfied
		Façade includes elements that relate to key datum lines of adjacent buildings.	The scale of development is consistent with two storey dwellings within the area	
		Building services fixtures integrated in design and not visually intrusive from public realm.	The building services are integrated into the development and are not intrusive to the public realm.	
4.11 Roof design	Achieved	Roof form or top of building complements façade design and desired streetscape character	Roof form acceptable	Satisfied
		Building services located on roof not visually obtrusive from street	Air conditioning units on the roof, screened by the roof profile	
4.12 Landscape design	Achieved	Landscaping plan required to be prepared by competent landscape designer demonstrating plant species and irrigation plan demonstrating achievement of Waterwise design principles	Landscaping information provided by TDL and prepared by landscape designer. Information included irrigation concepts	Satisfied

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
		Landscaping areas located and designed to support trees and improve outlook and amenity	Landscaping areas designed to support trees and contributes to amenity of the development as viewed from the street and proposed dwellings	
		Building services integrated with landscaping and not visually obtrusive	Building services not visually obtrusive, with the gas and water meters integrated with the landscaping and the electrically services integrated with the fencing on the northern boundary.	
4.13 Adaptive reuse	N/A	Not applicable as development not heritage	N/A	N/A
4.14 Mixed use	N/A	Not applicable as development not mixed use	N/A	N/A
4.15 Energy efficiency	Achieved	Incorporate at least one significant energy efficiency initiative; or all dwellings exceed minimum NATHERS requirements for apartments by 0.5 stars.	Solar panels indicated on roof	Satisfied
4.16 Water management and conservation	Achieved	Dwellings are individually metered for water usage	Applicant advised that dwellings will be individually metered.	Satisfied
		Storm water runoff is managed on-site	All stormwater will be contained on-site	

Element	Objectives	Acceptable Outcome	Proposed	Design guidance
4.17 Waste management	Achieved	Waste storage facilities provided in accordance with WALGA waste management guidelines.	Waste Management Plan provided demonstrating compliance with WALGA waste guidelines.	Satisfied
		Sufficient area for storage of green waste, recycling and general waste (separate)	Sufficient area provided for bin storage that is screened from street, dwellings and open space areas	
		Communal waste storage sited and designed to be screened from view from the street, open space and private dwellings.	Waste storage provided within a communal bin store integrated with the building design and screened from view.	
4.18 Utilities	Achieved	Utilities located within front setback or on visible parts of rooms are integrated into design.	Utilities appropriately located and screened	Satisfied
		Hot water units, AC condenser units and clotheslines not visually obtrusive	Hot water units are located within laundry. Airconditioning units located on the roof and are screened from view by the roof design.	
		Laundries are designed and located to be convenient, weather protected and well ventilated and size appropriate.	Laundries provided within each dwelling. No clothes lines proposed, with condenser dryers provided within the dwellings.	

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*.

SUBMISSIONS AGAINST THE PROPOSAL			
Design element	Issue raised	Applicant response	City comment
2.2 Building height	<ul style="list-style-type: none"> The height and siteworks result in massing on the streetscape which is outside the existing built form character of the street, with the existing housing predominantly single storey. The future scale of the street hasn't been defined by City of Joondalup, therefore the proposal cannot respond to it. Significant visual impact from two storey development to nearby residents, particularly those in Cromer Grove. Height will result in an eye sore for adjoining developments and as viewed from the street. 	<p>The character of the area includes single and two storey dwellings, with also isolated dwellings which are three storeys. The form is entirely consistent with the character of the area.</p> <p>The future scale has been defined by the City by virtue of the planning framework. The planning framework allows two storey development and is therefore consistent with the future scale. Furthermore, there are three, two storey town houses under construction on the opposite corner which sets out the emerging streetscape form. This proposal has less impact than the approved town houses as they occupy more of the site and include excessive retaining walls.</p> <p>The height is permitted, and the emerging streetscape will be two storeys as evidenced by the developments that are under construction or have been constructed.</p>	<p>The development predominantly results in excavation into the lot, with the finished ground floor level of the development up to one metre below the existing levels of the site.</p> <p>It is considered that two storey development heights are appropriate in this location and are permissible for single house and grouped dwelling developments.</p> <p>Refer to planning assessment in relation to building height.</p>
2.3	<ul style="list-style-type: none"> Primary and secondary street setbacks do not reinforce or 	The setbacks are entirely consistent with the planning	The setbacks to the primary and secondary street are in accordance

Street setbacks	<p>complement the existing or proposed character of the street.</p> <ul style="list-style-type: none"> The secondary street setback results in the building being 8m in front of the adjoining dwelling at No. 2 Cromer Grove. 	<p>framework. Furthermore, the emerging built form such as the town houses located at No. 3 Cromer Grove are two-storey with setbacks of up to 2.5 metres to the main building line (not the garage). This proposal offers more relief and increased landscaping. A far superior outcome to that of the emerging built form within the streetscape and locality.</p>	<p>with the City's RDLPP. These setback requirements are applicable to all development within the City's Housing Opportunity Areas.</p> <p>Should the adjoining dwelling be redeveloped, there is the potential for the development to apply similar setbacks.</p> <p>Refer to planning assessment in report.</p>
2.4 Side and rear setbacks	<ul style="list-style-type: none"> A 3m setback is required to the rear boundary at ground level, with nil proposed. The boundary wall is not in accordance with the requirements as it does not abut an existing wall. 	<p>The boundary wall is consistent with the provisions and objectives of Design WA (SPP 7.3 Vol 2). The ground floor is also substantially lower than the adjoining properties natural ground level and will have minimal impact.</p>	<p>The nil setback has been considered against the element objectives pertaining to side and rear setbacks.</p> <p>Refer to planning assessment in report.</p>
2.5 Plot ratio	<ul style="list-style-type: none"> Development exceeds allowable plot ratio. The plot ratio results in increased bulk and scale for the site and is not appropriate in the location. 	<p>The plot ratio is entirely consistent with the planning framework. This has been amended since the advertising of the initial plans.</p>	<p>The plot ratio for the site exceeds the suggested acceptable outcome by 0.01. The proposal allows for sufficient deep soil and open space areas around the site, whilst also ensuring the objectives relation to building separation are adhered to.</p> <p>Refer to planning assessment in report.</p>
2.6 Building depth	<ul style="list-style-type: none"> No solar access to Unit 3. 		<p>Access to sunlight for Unit 3 has been considered in accordance</p>

	<ul style="list-style-type: none"> • No cross ventilation via central corridor as apartment doors won't be left open. • Poor cross ventilation to Unit 6, and lack of amenity despite modifications to plans. • Any development on adjoining sites will hinder access to sunlight/ventilation to various units within the proposed development. 		<p>with solar and daylight access element objectives.</p> <p>Refer to planning assessment in report.</p> <p>Cross ventilation is provided through the central corridor with openings provided above the entry door to each unit.</p> <p>The provision of major openings to the primary and secondary streets, will protect access to sunlight with there being a significant separation between the nearest building. The setbacks to the northern and western boundaries are appropriate in considering the potential development of adjoining properties and ensuring access to sunlight and ventilation are not hindered.</p>
<p>2.7</p> <p>Building separation</p>	<ul style="list-style-type: none"> • Adequate building separation not provided to northern boundary due to the inclusion of the boundary wall. • Building separation does not allow for sufficient deep soil areas. • The building separation does not provide sufficient deep soil areas able to sustain trees of a suitable size. • Landscaping is not provided between buildings therefore 	<p>Building separation relates to the internal sections of a proposed lot, not the separation to other properties as this is dealt with under setbacks. A nil boundary wall is consistent with SPP 7.3 Volume 2 and is therefore appropriate.</p> <p>The site has ample deep soil landscaping areas inclusive of large tree canopy cover, all contributing to meeting the</p>	<p>As noted in the planning assessment of the report, sufficient separation is provided between developments.</p> <p>The boundary wall is considered to achieve the element objectives pertaining to side and rear setbacks given the scale of the proposed wall.</p> <p>Whilst landscaping has not been proposed within all setback areas, suitable areas for landscaping and</p>

	impacts the required building separation.	objectives of SPP 7.3 Volume 2. Lastly, the landscaping plan has been prepared by a reputable landscape designer and has been endorsed by the City's Design Review Panel.	deep soil areas have been provided across the site and is not required to each side façade to achieve adequate building separation.
3.2 Orientation	<ul style="list-style-type: none"> The development of this site will restrict the solar access available to the adjoining site when they wish to develop as any development of the adjoining site would cause excessive overshadowing of the applicant's site. If this development wasn't exceeding the setback rules this would not occur. 	The setbacks have not been exceeded they are consistent with SPP 7.3 Volume 2. Furthermore, overshadowing is minimal as it primarily falls within the public road reserve. The only portion of shadow which falls onto No. 6 Cromer Grove, relates to the driveway and garage component. This shadow is not dissimilar to what would occur if a two storey dwelling were to be proposed. The overshadowing meets the provisions of SPP 7.3 Volume 2.	<p>The shadow cast from the subject site predominantly falls to the primary street.</p> <p>The setbacks (with exception of the boundary wall) are consistent with the suggested acceptable outcomes of Clause 2.4 and achieve the relevant element objectives. The setbacks provided are considered to acknowledge the potential development of the adjoining site to ensure access to natural sunlight is maintained.</p>
3.3 Tree canopy and deep soil areas	<ul style="list-style-type: none"> Very limited deep soil areas proposed, with heavy reliance on permeable paving areas. The existing Norfolk tree on site was removed in May 2019. The medium trees proposed are not in areas of 36sqm, nor have a 6m dimension. The small tree locations are less than 9sqm and do not have a minimum 3m dimension. 	<p>Not only has the proposal incorporated sufficient onsite landscaping but they have integrated this into the verge area which will improve the existing desolate streetscape of Cromer Grove.</p> <p>The landscaping outcome is far more superior than any of the existing dwellings in the streetscape and far more elaborate when compared to the approved and almost completed</p>	Deep soil and landscaped areas are provided across the subject site and are in excess of 10% of the site area suggested as an acceptable outcome. The landscaped verge areas also contribute to the green spaces of the site and reduce the perception of hard stand. Additionally, the hard stand areas on site are required for vehicle and pedestrian movements, bin stores and private open space

	<ul style="list-style-type: none"> • More green space required - too much hard stand. 	town houses at No. 3 Cromer Grove that have limited to nil landscaping.	<p>areas to Units 1 and 2 which are usable.</p> <p>The deep soil areas on site are considered appropriate to accommodate the proposed tree species and sizes.</p> <p>The City acknowledge trees have been and are proposed to be removed from the subject site. The inclusion of two medium trees and four small trees are considered to account for the tree loss on site.</p>
3.4 Communal open space	<ul style="list-style-type: none"> • Communal open space area will impact on privacy of adjoining properties being located close to the verge area. • The level of development (and overdevelopment) proposed has resulted in the lack of communal open space provided on site. 	The communal open space area is a premium site as it encourages passive surveillance and also encourages a 'neighbourly' streetscape with the potential of incidental interactions. This principle is welcomed around the world by positioning communal spaces and private outdoor areas orientated to the street. It also enhances the streetscape by creating deeper front setbacks with a more landscaped setting.	<p>The communal open space area is an informal area, which is provided on site. The nominated area allows for passive surveillance of the street and the ability to enhance the safety of residents and passers-by.</p> <p>The acceptable outcomes for Clause 3.4 suggest informal seating to be provided for developments up to 10 dwellings.</p> <p>Refer to planning assessment in report.</p>
3.5 Visual privacy	<ul style="list-style-type: none"> • Unit 6 balcony relies on excessive permanent screening and results in overlooking. • Unclear if remaining balconies are screened or open. 	The screening is not excessive, and the balcony is completely open to the west whilst satisfying the visual privacy provisions of SPP 7.3 Volume 2 and the real impacts. As such, the balcony is	Refer to planning assessment in report.

	<ul style="list-style-type: none"> Proposal impacts on privacy of surrounding area, particularly from balcony of Unit 6. 	open in nature compared to the plans advertised and commented on.	
3.6 Public domain interface	<ul style="list-style-type: none"> Development does not delineate entries to various apartments and the commercial façade appearance can result in confusion and security issues for visitors and those accessing the building from the public domain. 	The proposal includes way finding features, which will also be conditioned on the approval. As such, this comment is redundant.	<p>The development provides a communal entry point for visitors to the site through the security gate.</p> <p>The entries to the individual dwellings are accessible once internal to the site with Units 1 and 2 at ground level and via the staircase to Units 3 – 6.</p> <p>The façade of the development is not considered to result in confusion, with the entry in proximity to the driveway and visitor parking areas.</p>
3.7 Pedestrian access and entries	<ul style="list-style-type: none"> Development does not delineate entries to various apartments. Vertical fencing to frontage creates an alienating streetscape. The ramp to the pedestrian access does not fully address accessibility issues. 	<p>There is a dedicated pedestrian access which is evident from the street to access all apartments.</p> <p>Furthermore, openings within the front fencing (gates) are provided along the secondary street which clearly identifies entries to those multiple dwellings. These will all be sign posted. No steps are included in the ground floor section of the development and are therefore universally accessible.</p>	<p>The multiple dwelling development provides internal access to the individual units. Entries to various apartments are not delineated within the external façade to give the appearance of one development on the site rather than six individual units.</p> <p>The fencing to the secondary streetscape incorporates visually permeable infill which allows surveillance between the development site and the street.</p> <p>The ramp provides universal access with the vehicle access</p>

			gate providing an alternate means of accessibility to the dwellings.
3.8 Vehicle access	<ul style="list-style-type: none"> The development is proposed in a cul de sac with no footpaths. The vehicle access point is next to a corner and therefore impacts the safe egress for vehicles and will cause possible pedestrian / vehicular conflict which is a risk to safety of the residents. Length of driveway and lack of turning circle will result in vehicles not exiting the site in forward gear. 	The vehicle access point is as per the existing arrangement which has not caused conflict previously. Furthermore, the access arrangements are compliant with the Australian Standards.	<p>The manoeuvring area provided for the car parking bays allow for vehicles to exit the site in forward gear.</p> <p>As vehicles will exit the site in forward gear, drivers will have clear sight of any potential conflicts which may occur between other vehicles and pedestrians.</p>
3.9 Car and bicycle parking	<ul style="list-style-type: none"> Additional cars parked on verge areas (and no footpath) will result in pedestrians (including young children) having to walk on the road. Gates to secondary street ground floor units will encourage verge and street parking. Car parking area will result in noise and odour emissions to the adjoining property. Parking area located near internal and external living areas of adjoining properties particularly to the northern boundary of the site. Tandem parking not appropriate and will create additional vehicle noise as residents 'reshuffle' vehicles. 	The car parking is consistent with the provisions of SPP 7.3 Volume 2. These comments are unfounded and not relevant to the planning framework.	<p>The car parking provision for the development satisfies the acceptable outcomes under SPP7.3 and is considered to meet the element objectives.</p> <p>Any unauthorised parking within the road reserve (verge area) is governed by the <i>City of Joondalup Parking Local Law 2014</i>.</p> <p>The parking area is open on three sides allowing for sufficient ventilation and does not specifically direct air flow to adjoining properties.</p> <p>Noise associated with vehicles is subject to the <i>Environmental Protection (Noise) Regulations 1997</i>.</p>

	<ul style="list-style-type: none"> • Comments in applicants' response to the element objectives are incorrect as the development is greater than 1km from the beach, access to the shopping centre is via an unlit accessway and a 5km drive to the freeway entry. • No bike bays for visitors. • Insufficient visitor parking provided. • Not within high frequency bus route. • Excessive verge parking will result in inability for verge plantings and contribute to the urban heat island effect. 		<p>The development is located within 250 metres of a high frequency bus route on Whitfords Avenue.</p> <p>The parking provided for the development is considered to meet the element objectives of Clause 3.9 Car parking and bicycle parking. Refer to planning assessment in the report.</p> <p>Four bicycle bays are proposed on site adjacent to the pedestrian entry gate. In accordance with the acceptable outcomes, three are required for residents and one for visitors.</p> <p>The verge is intended to be landscaped as per the landscaping plan (Attachment 4 refers). The area is to include four verge trees and landscaping to suit.</p>
4.1 Solar and daylight access	<ul style="list-style-type: none"> • Unit 3 has no solar access, and unit 6 has limited access to light into the living room. • Future development at No. 2 Cromer would hinder access to sunlight. 	<p>The sun rises in the east and settles in the west. Detailing that unit 3 has no sunlight is unreasonable given there are a number of openings to the habitable rooms which all receive sunlight. In the world the sun is not just one directional.</p>	<p>Although not achieving two hours of sunlight into Unit 3, the dwelling has access to aspects of light during the day from the western façade.</p> <p>The higher skillion roof height to Units 3 and 6 allow for greater access to light, and also the highlight window within the northern façade of Unit 6. Refer to planning assessment.</p>

		Unit 6 has access to the northern aspects where available and also through V-luxes.	The development setbacks are consistent with the acceptable outcomes of Clause 2.4 and the development of the northern property to the same scale would be required to incorporate similar setbacks.
4.2 Natural ventilation	<ul style="list-style-type: none"> • Lack of cross ventilation for all units, as they rely on apartment doors being left open. • Unit 6 has poor cross ventilation. 	This is unfounded as cross ventilation also occurs through window openings, whereby all windows are operational.	The development provides windows above the doorways to each unit to allow for cross ventilation and as such mitigates the reliance on entry doors being left open.
4.3 Size and layout of dwellings	<ul style="list-style-type: none"> • Layout of Unit 6 does not provide for adequate amenity for the future residents. • Internal living spaces are inadequate. • Highlight windows only to Bed 1 in Units 3 and 5. • No drying spaces for any of the units. • Locations of AC units not shown. • Unit 3 bedrooms do not meet minimum 3 metre dimension. • Number of dwellings proposed results in poor layout/internal design of the units. 	<p>The plans have been modified since advertising and Unit 6 has been reconfigured which has increased access to natural sunlight, ventilation and outlook. Each habitable room is afforded the same level of amenity as the other proposed multiple dwellings.</p> <p>The proposal is consistent with the plot ratio provisions and is not an over development. The design has been adjusted since previous interactions to ensure that each multiple dwelling is afforded a high level of amenity. However, we appreciate the neighbours' concerns for the amenity of their future neighbours.</p>	<p>The amendments to the configuration of Unit 6 allow for useable areas which have access to natural sunlight and ventilation and provide for increased amenity for future residents.</p> <p>Each dwelling meets the acceptable outcome relating to internal living spaces and the overall development achieves the relevant element objectives. The development is also considered to achieve the element objectives pertaining to plot ratio and as such the number of dwellings is considered appropriate.</p> <p>The air conditioning units have been provided on the roof of the</p>

			<p>building. Clothes drying areas are provided within the units</p> <p>The bedrooms to Unit 3 each provide a three metre minimum dimension and are considered to meet the element objectives.</p>
<p>4.4</p> <p>Private open space and balconies</p>	<ul style="list-style-type: none"> Balconies do not represent spaces for “active outdoor recreation.” The balconies are effectively non-habitable spaces which will likely serve as clothes drying areas (in most cases onto the street front), Unit 6’s balcony is mostly enclosed so doesn’t provide any amenity or great liveability. Outdoor spaces to Units 1 and 2 and balconies to Units 4 and 5 are enclosed providing no ventilation or amenity. 	<p>Active outdoor recreation includes different requirements based on different dwelling typologies. A single house and a multiple dwelling have different active outdoor recreation areas.</p> <p>Those drawn to live within a multiple dwelling seek a lifestyle option that is low maintenance and seek enjoyment of their outdoor areas for entertaining small groups. The proposed balconies and courtyards are appropriately sized when considering the size of the multiple dwellings and offer active outdoor recreation. All balconies are open along at least one length which offers ventilation and amenity.</p>	<p>Balconies are considered as active outdoor space for apartments in accordance with the definitions contained within the appendices of SPP7.3.</p> <p>Unit 6’s balcony achieves the Element Objectives of clause 4.4 with the area exceeding the suggested 10m² under the acceptable outcomes and having a portion which is unscreened to provide an external outlook.</p> <p>All balconies and outdoor spaces are unscreened to one side allowing for natural ventilation into the areas.</p>
<p>4.5</p> <p>Circulation and common spaces</p>	<ul style="list-style-type: none"> Circulation space meagre. First floor escape distance from Unit 5 and Unit 6 entry doors to top of stair exceeds 6m, and as such not compliant with the National 	<p>The circulation space is compliant with the Australian Standards and the proposal is consistent with the BCA, which will further be reviewed at the Building Permit</p>	<p>The proposal is considered to be consistent with the BCA, noting that an ‘alternative solution’ can be provided through a building permit.</p>

	Construction Code and poses a safety risk to occupants.	stage and not relevant to a planning approval.	These requirements are to be further considered through the building permit process.
4.6 Storage	<ul style="list-style-type: none"> Stores to Units 4 and 5 are under size and under width. 	The storerooms are 'compliant'.	<p>The reduced size and widths have been considered appropriate as the storage areas achieve the Element Objectives.</p> <p>Refer to planning assessment in report.</p>
4.7 Managing the impact of noise	<ul style="list-style-type: none"> Development will result in significant noise impact from vehicles to adjoining properties. No detail provided in regards to noise impact - with proximity to Whitfords Avenue which is approximately 61m metres away from the subject site. 	<p>The ground floor finished floor level is substantially lower than the adjoining lot's natural ground level, which in turn reduces any offsite noise impact.</p> <p>The development is consistent with SPP 5.4 and does not require consideration of Whitfords Avenue.</p>	<p>On site noise is managed in accordance with the <i>Environmental Protection (Noise) Regulations 1997</i>.</p> <p>Consideration against <i>State Planning Policy 5.4</i> is not required in regard to noise impacts from this portion of Whitfords Avenue.</p>
4.8 Dwelling mix	<ul style="list-style-type: none"> No development mix. Development doesn't provide housing diversity that is appropriate or required for the area. Apartment living is being provided within the Whitfords Activity Centre. 	Providing two bedroom dwellings allows for greater adaptability, whereby the second bedroom can become a study or home office as opposed to just another bedroom. This encourages diversity and adaptability within the development. This development alone provides housing diversity within the area which is entirely consistent with the City's Local Housing Strategy.	The acceptable outcomes suggest that developments with more than 10 dwellings provide a mix of dwellings types including differing bedroom numbers. As six dwellings are proposed, a mixture of dwelling types is not required.

4.9 Universal design	<ul style="list-style-type: none"> No evidence of compliance in terms of accessibility, particularly within the doorways and bathrooms. 	The dwellings on the ground floor allow for universal design being accessed via the secondary street through the courtyards and into the main living and meals areas.	The ground floor units have been designed for universal access throughout the dwellings. A condition of approval has been recommended to ensure the proposal achieves the Silver Level requirements of the <i>Liveable Housing Design Guidelines</i> .
4.10 Façade design	<ul style="list-style-type: none"> The façade does not respect or reference the existing character of the area which is light brick, light render and predominantly pitched roofing (colour bond or tile). Note colours proposed as part of amended design are more aesthetically pleasing, however remain inconsistent with the surroundings. 	The proposal includes light render and light feature cladding which is entirely consistent with the locality. There are also a number of dwellings along with Wingala streetscape that runs from Cromer Grove that have concealed roof forms.	<p>The proposed façade is consistent with the new contemporary residential design throughout the area. The development incorporates contrasting render and building materials and textures to assist in reducing the impact of bulk to the streetscape.</p> <p>Refer to planning assessment in report.</p>
4.11 Roof design	<ul style="list-style-type: none"> Roof form not consistent with tiled pitched hip and gable roof forms of other houses in the street. Roof spaces have not been used for solar generation or to add benefit to the development. 	<p>As detailed above, the roof form is consistent with dwellings both existing and emerging within the streetscapes of the locality that are concealed.</p> <p>Solar panels are proposed as part of this development.</p>	<p>There is evidence within the locality of contemporary roof forms such as concealed and skillion and as such the proposed roof form is considered appropriate.</p> <p>The roof space has incorporated solar generation to add benefit to the future occupants and development.</p> <p>Refer to planning assessment pertaining to roof design.</p>

4.12 Landscape design	<ul style="list-style-type: none"> • No existing trees to be retained. • Proposed landscaping provides undersized deep soil areas for the medium trees. • Landscaping relies on permeable paving areas. • Design does not allow for sufficient deep soil zones. • Landscaping does little to provide separation between buildings. 	There are no mature trees on the site currently to be retained. The landscaping, as previously mentioned, has been designed by a reputable landscape design and been endorsed by the City's Design Review Panel. It includes dense planting in both soft and deep soil forms and will create an improved streetscape setting for the current desolate Cromer Grove.	<p>Landscape design has been considered within the planning assessment of the report.</p> <p>Detailed responses have also been provided as per Clause 3.3 above.</p>
4.13 Adaptive reuse	<ul style="list-style-type: none"> • Load bearing brick wall and suspended concrete slab construction restricts ability to reconfigure the ground floor spaces. Wet area configuration and associated plumbing would also make that difficult. • The ability to adapt these units is very limited. 	<p>Adaptive reuse is not intended to manipulate building designs but rather how internal spaces can adapt in the future.</p> <p>The second bedroom of each dwelling has the ability to adapt to people's needs by offering a space which can be used as a second bedroom, home office, study and/or wardrobe. This allows for continued adaptability of the dwellings.</p>	<p>The intent of the proposal is not to modify the external elements of the dwelling.</p> <p>Any internal modifications in the future may require development approval should they alter the plot ratio and/or size and layout of dwellings. These modifications, including the changes in wet areas, may also require consideration through the submission of a building application.</p>
4.14 Mixed use	Not Applicable		
4.15 Energy efficiency	<ul style="list-style-type: none"> • No evidence provided to prove the development is energy efficient over and above the minimal requirements of the National Construction Code. 	The proposal is currently being considered under the planning framework, the National Construction Code will be considered at the building permit	The proposal is considered to achieve the element objectives pertaining to energy efficiency. The development includes solar energy measures to assist in reducing

	<ul style="list-style-type: none"> Due to the proposed increased density of this site measures should be included in the design to reduce the energy consumption and greenhouse gas emissions, in fact the design is actively decreasing the energy efficiency by, for example, impacting the ability for cross ventilation and passive heating opportunities with lack of windows and the use of high level windows. 	<p>stage whereby the energy rating must meet the requirements.</p> <p>The proposal also includes the provision of solar collectors which contributes to the development's overall energy efficiency.</p>	greenhouse gas emissions from the development.
<p>4.16</p> <p>Water management and conservation</p>	<ul style="list-style-type: none"> Matters should be dealt with prior to building permit stage. 	All stormwater will be retained on site and the in-depth detail will be provided at building permit stage.	Stormwater and drainage have been identified as being retained on site. Remaining water management and conservation including managing potential of flooding will form part of the building application.
<p>4.17</p> <p>Waste management</p>	<ul style="list-style-type: none"> Bin storage area appears insufficient for number of bins required. On street bin collection will cause a great impost on the community. Bin separation inadequately shown on plans. 	The waste management has been undertaken in accordance with the WALGA and City requirements and are deemed appropriate for the scale of development.	<p>The waste management plan (Attachment 5 refers) identifies a shared bin system for occupants, with the bin storage area adequate for the required number of bins.</p> <p>On street collection is proposed for the site, with a maximum of five bins on the verge at any given time.</p> <p>Refer to planning assessment in report.</p>

4.18 Utilities	<ul style="list-style-type: none"> No drying areas for units will result in clothes drying on balconies which are visible from the street and adjoining properties. Drawings do not show where electricity, water and gas meters are to be located, and the areas should be accessible. 	Drying areas are not required as dryers will be provided within each multiple dwelling. There will also be a condition of planning approval which restricts the usage of these outdoor areas for the use of drying clothes.	<p>Sufficient space is provided within the dwelling for mechanical dryers within each unit. A condition of approval has been recommended as part of the application to ensure clothes drying areas are screened from view.</p> <p>The development plans identify gas meters within the landscaped area adjacent to the entry to the development.</p> <p>The electrical box has been located on the northern boundary and is accessible for all residents.</p> <p>Whilst water meters have not been shown on the development plans, there is sufficient space across the site for their location without compromising the development.</p>
Other	Issue raised		Officer comment
State Planning Policy 7.0	<p>Development does not meet the 10 design principles of SPP 7.0. The reasons are linked to issues raised as part of each element objective noted above, in particular:</p> <ul style="list-style-type: none"> The dwelling is not keeping in the context/character of the locality. 	1. The design is considered to respond to the local characteristics of the area and be a suitable addition for the area. The design proposes a scale that is not dissimilar to the two storey dwellings within the immediate locality. The front elevation has purposely been designed to mimic the	<p>As noted above, the development is consistent with the size, scale, materials and character of existing buildings within the locality.</p> <p>Sufficient areas across the site have been provided for the provision of landscaping and deep soil areas, which allow for tree growth. Additionally, inclusion of</p>

	<ul style="list-style-type: none"> • The bulk and scale of the development is not appropriate in the location. • The landscaping proposed is minimal and does not allow for sufficient tree growth and deep soil areas. • Development lacks sustainable features such as solar panels, rainwater tanks. • Poor amenity for future residents and the building will impact the amenity of existing neighbours. • No clear connections, with the façade not providing clear entrances etc. • The safety of residents is hindered by the scale of the development particularly as the street is a cul-de-sac. • There is very little opportunity for community interaction because the ground floor courtyards are behind walls and gates and the balconies at first floor level are unlikely to be used much (very rarely do you see people sitting on balconies of Apartment blocks. Seeing washing being dried on them is far more common.) • Proposed materials are not aesthetically in the character of the area 	<p>single houses within the streetscape. The façade colour palate and design has also been updated to reference to comments made by the City's Design Review Panel.</p> <ol style="list-style-type: none"> 2. The design proposes and will provide landscaping as required by the City's planning framework and is considered to be suitable for the local area and bring in much needed housing diversity. 3. The design proposes a scale and built form similar to that already evident in other multiple dwelling developments in the local area. The development is congruent with the permissible and desired built form allowable by the City and its planning framework. Furthermore, the streetscape and locality exist with two storey dwellings which are of a similar bulk and scale to the streetscape. 4. It is considered that the proposed design provides the required building services and design features and is capable of being reused or repurposed in the future. In doing so it is 	<p>solar panels provides for sustainable design features.</p> <p>The entry to the development is clear and definable from the primary street.</p> <p>As the balconies to the upper floors are the main outdoor living areas for the respective units, the space is likely to be readily used by residents. The use of this space will allow for passive surveillance of the street and in turn increase safety of both residents and passers-by.</p> <p>Additionally, the communal open space at the ground level will allow for increased safety of those in the area.</p> <p>The fencing to the ground floor units allows for a degree of privacy for occupants, however provides for integration with the adjacent street given the visually permeable infill.</p>
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		<p>considered that the proposed design will meet the needs and functional requirement of future residents.</p> <ol style="list-style-type: none">5. The design increases housing density in a high amenity area which is well serviced, which in turn reduces environmental stress, social stress, and economic burden evident in low amenity fringe suburb development.6. The design contributes to and provides an appropriate degree of amenity. It is considered that the development will contribute to the high amenity evident in the local area including those described previously in this document.7. The proposed design is low scale (six multiple dwellings) and presents a better outcome by contrast to a grouped dwelling development for the same site, which would have an excessive building footprint, limited open space, and provide limited opportunity for landscaping or greenery. The site is clearly legible with clearly defined buildings and	
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		<p>provides easily identifiable building elements.</p> <p>8. The proposed design creates a sense of ownership and enclosure and helps to contribute to defensible space. The design does not expose itself to the street by virtue of risk, nor propose a design which is contrary to the objectives of Crime Prevention Through Environmental Design. The design is considered to achieve the design objective of safety.</p> <p>9. The design is considered to be of a “human scale” and provides ample opportunity for interaction between residents, and with the streetscape and local area. There are ample opportunities for community interaction.</p> <p>10. The design is considered to provide an appropriate degree of aesthetic quality throughout. The design includes on-structure landscaping and a varied and complementary materials and colour palette.</p>	
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Traffic	<ul style="list-style-type: none"> • Increase traffic to area by up to 15%. • Development within cul de sac, with the road system not having the capacity for the amount of traffic to be generated, in turn will impact traffic flow and safety. 	The hierarchy of this road is capable of the additional traffic movements and will not be exceeding any road trip allowances.	There is adequate capacity within the surrounding road networks to support the development without compromising the safety of those within the immediate streets and surrounding areas.
Character of streetscape and surrounding area	<ul style="list-style-type: none"> • Bulk and scale of development not in keeping with area. • Development is overbearing and imposing. 	As detailed previously, the proposed scale of the development is entirely consistent with the current and emerging built form. That of No. 3 Cromer Grove is far more impactful than this proposal. This proposal includes extensive landscaping, high quality finishes with varying setbacks, materiality and colour.	The scale of development, including size and height is consistent with numerous developments within the immediate area.
Overall development	<ul style="list-style-type: none"> • Overdevelopment of site, three dwellings would be more appropriate. • Inappropriate proposal on a 728sqm lot. • Poor liveability for apartments, particularly Units 3 and 6, with Unit 3 being dark and Unit 6 being difficult to ventilate. 	The proposal is not over development of the site as it meets the provisions of SPP 7.3 Volume 2, with respect to the City's density coding.	<p>The development of multiple dwellings is considered appropriate in an R40 coding as per the planning assessment.</p> <p>The size of the development has been considered in accordance with the element objectives of plot ratio as identified above. The liveability of these units, including access to sunlight has been addressed within the planning assessment of the report and in response above.</p>

Local Planning Policies	<ul style="list-style-type: none"> • Council have advised Administration that the Draft Development in Housing Opportunity Areas Policy is to be advertised, with the policy to restrict this type of development (multiple dwellings) in cul-de-sacs. • Residential Development Local Planning Policy parking provision not met (three additional bays required in accordance with policy). 	The policy cannot alter SPP7.3 without the WAPC approval, whereby this policy has not received WAPC approval.	<p>The policy is currently in draft form and as such is not a consideration for the subject application.</p> <p>The parking provisions of the City's RDLPP are not applicable to the proposal as the provisions were superseded with the gazettal of SPP7.3 in May 2019.</p>
Previous application/determination	<ul style="list-style-type: none"> • Only minor changes made to previous proposal which was refused by the SAT. 	That is the opinion of the objector, however, the comment is completely unfounded as a majority of the development has been redesigned.	The planning assessment in the report outlines the changes made to the proposed following the SAT's refusal and how these elements have now been achieved.
Social impacts	<ul style="list-style-type: none"> • Proposal will devalue surrounding properties. • Safety concerns from the development on surrounding area. • Developments of this scale remove the ambience of a peaceful and quiet neighbourhood. • Increased number of persons living in the street will reduce enjoyment of area. 	Not relevant planning considerations.	The perceived community values of future occupants and property values are not a valid planning condition.
General	<ul style="list-style-type: none"> • Consultation concerns not taken into consideration with amended plans. 	Not relevant to this proposal.	The amended plans considered concerns from the initial consultation period with modifications made to the design.

	<ul style="list-style-type: none"> Infill development should be concentrated around the Joondalup CBD and activity centres. 		Infill development is considered acceptable in identified and appropriately zoned areas outside of the City Centre and activity centres
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SUBMISSIONS RECEIVED IN SUPPORT OF PROPOSAL		
Comment received	Applicant Response	Officer comment
<ul style="list-style-type: none"> Support multiple dwellings within the area. Provide opportunities for residents to down size within the area. 	Accepted.	Noted.



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, and *Energy Smart Homes* at: 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:

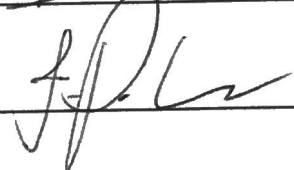
If yes, please attach appropriate documentation to demonstrate this assessment.

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:

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: Tan Pavlovic Contact Number: 0420405929
Applicant's Signature:  Date Submitted: 3/7/19

Accepting Officer's Signature: _____

Checklist Issued: March 2011