



30<sup>th</sup> July 2023  
Planning Department  
City of Joondalup  
PO Box 21  
JOONDALUP WA 6919

Dear Sir/Madam,

**No. 16A Chalcombe Way, Warrick**

**Proposed Single Residential Dwelling**

This letter has been produced in support of the abovementioned proposal with respect to the variations to the development standards of the City's Development in Housing Opportunity Areas Local Planning Policy (DHOALPP) and the deemed-to-comply provisions of the Residential Design Codes for:

- DHOALPP Table 1 Sub-Section 6 – Side and Rear Setbacks – Side setbacks.
- DHOALPP Table 1 Sub-Section 11 – Tree Canopy and Deep Soil Areas – Landscaped Area.
- DHOALPP Table 1 Sub-Section 17 – Solar and Daylight Access.
- DHOALPP Table 1 Sub-Section 18 – Natural Ventilation.
- Residential Design Codes – 5.4.4 External Fixtures, Utilities and Facilities.



*Figure 1: Subject Site Aerial*

### Site Background

- The subject site is zoned 'Residential' and designated a density coding of R20/40 under the provisions of the City of Joondalup Local Planning Scheme No. 3.
- The subject site is 259m<sup>2</sup> in area and is of rectangular shape.
- The subject site has an effective lot frontage of 5.51m to Chalcombe Way.
- The subject site is located in one of the City's Housing Opportunity Areas (HOA) – HOA1.

### Proposed Variations

#### **DHOALPP Table 1 Sub-Section 6: Side and Rear Setbacks – Side setbacks.**

DHOALPP Table 1 Sub-Section 6 amends R-Codes Clause 5.1.3 deemed-to-comply requirements and states the following:

- 6.4** *A wall may be built up to one side lot boundary behind the street setback within the following limits:*
- a maximum length of 9.0 metres;*
  - a maximum height of 3.5 metres from natural ground level; and*
  - An average height of 3.0 metres from natural ground level; or*
  - where the wall abuts an existing or simultaneously constructed wall of similar or greater dimensions.*

DHOALPP Table 1 Sub-Section 6 provides the following Objectives which can be addressed to demonstrate compliance:

- *Dwellings are to be designed to respond to passive solar design principles, including orienting outdoor and indoor living spaces towards north, orienting mass and windows to capture prevailing breezes and controlling solar access to the west and east to limit heat gain.*
- *provide opportunities for residents to use space external to the dwelling for outdoor pursuits and access within/around the site; and provide space for external fixtures and essential facilities.*

The proposal currently has boundary walls to one side of the proposed garage/bed 2 and bed 3/bath area. In addition to the two boundary walls, the garage/bed 2 boundary wall exceeds the maximum length requirement of 9m. Accordingly, variations are proposed to sub section 6 of DHOALPP development standards.

#### **DHOALPP Table 1 Sub-Section 11: Tree Canopy and Deep Soil Areas – Landscaped Area.**

DHOALPP Table 1 Sub-Section 11 replaces R-Codes Clause 5.3.2 deemed-to-comply requirements and states the following:

- 11.1** *The minimum landscape area is to be calculated as 20% of the site area.*
- 11.2** *Where common property is applicable, then the common property land area shall also be included in the lot area as distributed proportionally to each lot.*

# BUILDING SURVEYING

## SOLUTIONS

- 11.3** *The 20% minimum requirement for landscape area may be varied for grouped dwellings where an application for development approval is submitted for all grouped dwellings on the parent lot, provided it can be demonstrated that the minimum landscape area achieves 20% of the total parent lot area.*
- 11.4** *Permeable paving or decking within a landscape area is permitted provided it does not exceed 30% of the landscape area and will not inhibit the planting and growth of adjacent trees in the landscape area.*
- 11.5** *The minimum dimension of any landscape area shall be 1.5 metres.*
- 11.6** *A minimum of 50% of the area between the front of the dwelling and the street lot boundary (front setback area) shall be landscape area.*

DHOALPP Table 1 Sub-Section 11 provides the following Objective which can be addressed to demonstrate compliance:

- *Achieve an attractive landscape environment that is complementary to the wider neighbourhood.*
- *To ensure the provision of trees and gardens which contribute to the ecology, character and amenity of the Housing Opportunity Areas.*
- *To ensure the retention of existing street trees (where appropriate) and optimise the availability of verge space to increase street tree provision.*
- *To provide access to functional and usable landscape areas for residents that are suitable for the purposes of relaxation and entertaining.*
- *To provide the opportunity to retain appropriate existing trees within a site to minimise loss of suburban urban tree canopies across the Housing Opportunity Areas.*
- *Permeable paving is encouraged to capture stormwater discharge into groundwater.*

The DHOALPP development standards require 20% of the site area to be landscaped with applicable common property to be added to the area calculation for landscaping. All landscaped areas are also required to have a minimum 1.5m dimension. The site area is 259m<sup>2</sup> with a common property area of 96m<sup>2</sup>. Due to the common property benefiting both allotments, this area has been halved as per the development standard, thus resulting in a total site area 307m<sup>2</sup>. The required landscaped area is 61.4m<sup>2</sup>.

The updated landscaping plan provides additional landscaping to one side of the driveway, adjacent to the porch area, between the two trees at the rear of the dwelling and outside the laundry. This results in 70.46m<sup>2</sup> of landscaping which satisfies the 20% development standard. However, not all landscaped areas are able to achieve the minimum 1.5m dimension. Therefore, the variation to the development standard has been justified against the policy objectives as to how the proposed development complies.

**DHOALPP Table 1 Sub-Section 17: Solar and Daylight Access.**

DHOALPP Table 1 Sub-Section 17 augments R-Codes Clause 5.4.2 deemed-to-comply requirements and states the following:

**17.1** *For single and grouped dwelling development, solar and daylight access are as per SPP7.3 — Volume 2, Acceptable Outcomes:*

*a. A4.1.1*

*b. A4.1.3*

*c. A4.1.4*

DHOALPP Table 1 Sub-Section 17 provides the following Objectives which can be addressed to demonstrate compliance:

- *Ensure that built form provides good solar access to the public realm and adjacent buildings, whilst achieving comfortable internal and external environments for its occupants.*
- *Incorporate passive solar design principles to optimise solar gain in winter and protection from heat gain in summer.*

The DHOALPP development standard outlined above requires grouped dwellings to meet the solar and daylight access requirements of Volume 2 R-Codes (apartments). A4.1.1 specifies that dwellings with a northern aspect are maximised, with 70% of dwellings having living rooms and private open space obtain at least 2hrs of direct sunlight between 9am and 3pm on 21 June. The proposed dwelling currently achieves approx. 30mins of direct sunlight. Accordingly, a variation is proposed to sub section 17 of the DHOALPP development standards.

**DHOALPP Table 1 Sub-Section 18: Natural Ventilation.**

DHOALPP Table 1 Sub-Section 18 augments R-Codes Clause 5.1.3 deemed-to-comply requirements and states the following:

**18.2** *Habitable rooms shall have a window in an external wall which:*

*a. Has a minimum glass area not less than 15% of the floor area of the room;*

*b. Comprise a minimum of 50% clear glazing; and,*

*c. Is openable for 50% the size of the window.*

**18.3** *Further requirements for natural ventilation are as per SPP7.3 — Volume 2, Acceptable Outcomes:*

*a. A4.2.1*

*b. A4.2.4*

DHOALPP Table 1 Sub-Section 18 provides the following Objectives which can be addressed to demonstrate compliance:

- *Optimise natural ventilation to reduce the need for mechanical ventilation and air-conditioning.*

- *To ensure the dwelling’s orientation and layout is designed to maximise capture and use of prevailing cool breezes in habitable rooms.*

Only one window has been proposed to bed 2 and the window achieves a total glass area of 13% in lieu of the required 15%. Accordingly, a variation is proposed to the development standards of sub section 18 of DHOALPP.

**Residential Design Codes Volume 1 – 5.4.4 External Fixtures, Utilities and Facilities.**

R-Codes Clause 5.4.4 deemed to comply requirements recognise compliance where;

**C4.5** *An enclosed, lockable storage area, constructed in a design and material matching the dwelling where visible from the street, accessible from outside the dwelling, with a minimum dimension of 1.5m when provided external to a garage and 1m when provided within a garage and an internal area of at least 4m<sup>2</sup>, for each grouped dwelling.*

R-Codes Clause 5.4.4 provides the following Design Principles which can be addressed to achieve compliance;

**P4.2** *External location of storeroom, rubbish collection/bin areas, and clothes drying areas where these are:*

- *convenient for residents;*
- *rubbish collection areas which can be accessed by service vehicles;*
- *screened from view; and*
- *able to be secured and managed.*

The internal store located within the garage has been designed with a minimum width dimension of 800mm and a floor area 3.8m<sup>2</sup>. Accordingly, a variation is proposed to the Deemed-to-comply provisions of the R-Codes.

**Justifications**

The following justification is provided in line with the Objectives of the DHOALPP and the Design principles of the R-Codes to demonstrate the proposal’s compliance.

**DHOALPP Table 1 Development Standards**

The following tables demonstrate how the proposal addresses the DHOALPP Table 1 Development Standards Objectives’.

<p><b>DHOALPP Table 1 Sub-Section 6: Side and rear setbacks – Side setbacks.</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• <i>Dwellings are to be designed to respond to passive solar design principles, including orienting outdoor and indoor living spaces towards north, orienting mass and windows to capture prevailing breezes and controlling solar access to the west and east to limit heat gain.</i></li> </ul>
<p>Due to the allotment configuration that resulted from the subdivision process, the dwelling has been configured with passive solar design principals in mind and orientated the best possible way. The courtyard has been oriented to the south-west to make the most of the summer seabreeze, while window openings have been provided to all habitable rooms facing north. This will allow building occupants to maximise solar access into the dwelling. The two boundary walls along with the additional 390mm to the garage/bed 2 wall will have minimal, to no impact on the adjoining properties and allow the building occupants to maximise</p>

the dwelling footprint on the difficult allotment configuration. The eastern boundary wall (bed 3 and bath) will assist in limiting heat gain and allow building occupants to gain the most use out of the dwelling and site.

**DHOALPP Table 1 Sub-Section 11: Tree Canopy and Deep Soil Areas – Landscaped Area.**

**Objectives:**

- *Achieve an attractive landscape environment that is complementary to the wider neighbourhood.*

The site is undeveloped and does not currently contribute to the wider neighbourhood. The development when completed will bring new building occupants to Chalcombe Way and promote the vitality of the local area. As the accessway only serves the rear lot, the new owners of this development will be responsible for landscaping the common property area. Whilst either side of the driveway does not achieve the minimum 1.5m dimension, it does provide two areas approximately 20m in length. This will allow for small shrubs and bushes to be planted at appropriate spacings to create an aesthetically pleasing entrance into the development from Chalcombe Way. Not only will this benefit the new building occupants, but also the surrounding residents and visitors which will promote local community interactions, neighbourly relations and an attractive landscape that complements the wider neighbourhood.

- *To ensure the provision of trees and gardens which contribute to the ecology, character and amenity of the Housing Opportunity Areas.*

Due to the small lot configuration approved by the subdivision process, the designer has incorporated two tree planting areas which achieve the minimum 2m x 2m areas along with the 9m<sup>2</sup> deep soil areas. These landscaped areas are located at the rear of the dwelling on the eastern and western boundaries. In addition to the trees, landscaping areas have been located either side of the driveway, adjacent to the porch and between the two trees at the rear of the dwelling. These landscaping areas will allow the building occupants to contribute to the ecology and character of the local area over time as the gardens flourish.

- *To ensure the retention of existing street trees (where appropriate) and optimise the availability of verge space to increase street tree provision.*

Unfortunately, no existing trees were preserved during the subdivision process, however two trees will be replanted along the eastern and western boundaries at the rear of the proposed dwelling with the required 9m<sup>2</sup> deep soil zone. This will contribute to microclimates and ensure the trees have the best possible chance for growth by maximising its exposure to the winter sun. Unfortunately, due to the lot being accessed via the common property there does not appear to be an area for a new verge tree to be planted. However, the existing verge tree will be retained and protected throughout the construction process.

- *To provide access to functional and usable landscape areas for residents that are suitable for the purposes of relaxation and entertaining.*

The designer has incorporated multiple garden areas surrounding the development. One of the two trees will be located within the courtyard area at the rear of the dwelling. This will provide a relaxing space for building occupants to relax and enjoy. It is a functional area as access is provided directly from the living/dining room which will result in regular usage as people are able to go between the indoor and outdoor environment, especially when the building occupants are entertaining.

The small garden areas adjacent to the driveway and porch area will also provide an element of relaxation at the end of the day or when residents are returning home from their activities. These gardens will also contribute positively to when building occupants are entertaining as guests and visitors will see the gardens

before they enter the dwelling. The development has been thoughtfully designed around the garden aspect which will allow for building occupants to frequently and easily access their gardens whilst entertaining guests and enjoying it for their own personal relaxation.

- *To provide the opportunity to retain appropriate existing trees within a site to minimise loss of suburban urban tree canopies across the Housing Opportunity Areas.*

Unfortunately, as mentioned above, no existing trees were preserved during the subdivision process. However, two trees will be replanted along the eastern and western boundaries at the rear of the dwelling with the required 9m<sup>2</sup> deep soil zone. This will contribute to microclimates and ensure the tree has the best possible chance for growth by maximising its exposure to the winter sun.

- *Permeable paving is encouraged to capture stormwater discharge into groundwater.*

The designer has incorporated a landscaped area at the rear of the dwelling between the two proposed trees. This area will consist of permeable surfaces allowing for stormwater to be captured and discharged into ground water. The stormwater run-off from the brick paved driveway will also be able to be discharged into the adjacent garden beds. Not only will this benefit the gardens, but it will also benefit the ground water table due to the size of the landscaped area. The development also utilises stormwater soak wells that will capture rainwater as well as stormwater runoff and discharging it into ground water.

**DHOALPP Table 1 Sub-Section 17: Solar and Daylight Access.**

**Objectives:**

- *Ensure that built form provides good solar access to the public realm and adjacent buildings, whilst achieving comfortable internal and external environments for its occupants.*

Due to the allotment configuration that resulted from the subdivision process, the dwelling has been configured with passive solar design principals in mind and orientated the best possible way. The courtyard has been oriented to the south-west to make the most of the summer seabreeze, while window openings have been provided to all habitable rooms facing north. This will allow building occupants to maximise solar access into the dwelling. The dwelling has also been setback sufficiently from the allotment boundaries and will therefore not impact on the adjoining properties solar and day light access. As part of the building permit application, an energy efficiency assessment from an appropriately qualified energy assessor will be submitted, demonstrating that the dwelling achieves compliance with National Construction Code (NCC) Energy Efficiency requirements under Part 3.12. This will ensure comfortable environments are achieved for the building occupants.

**Objectives:**

- *Incorporate passive solar design principles to optimise solar gain in winter and protection from heat gain in summer.*

As outlined above, the dwelling has been configured with passive solar design principals in mind and orientated the best possible way for the allotment, which resulted from the approved subdivision process. Whilst the development does not achieve the 2hr requirement of direct sunlight to the living room on the 21 June, the designer has incorporated major openings to all habitable rooms. A sky light has also been proposed to the living room to assist in solar heat gain during the winter months. Due to the living areas being orientated to the south-east, there is no need for shading structures. This will allow the building occupants to enjoy their living room and courtyard areas in the warm months. In addition to this, the building permit application will be accompanied by energy efficiency assessment from an appropriately

qualified energy assessor demonstrating that the dwelling achieves compliance with National Construction Code (NCC) Energy Efficiency requirements under Part 3.12.

**DHOALPP Table 1 Sub-Section 18: Natural Ventilation.**

**Objectives:**

- *Optimise natural ventilation to reduce the need for mechanical ventilation and air-conditioning.*

Natural ventilation is proposed to bed 2 through an awning window which has a glass area of 13.2% instead of the required 15% by the development standard. This minor reduction in glass area of 1.8% will have minimal impact on the bedroom's natural ventilation. The proposed window opening satisfies the natural ventilation requirements of the NCC Part 3.8.5.2 and is therefore considered to be sufficient.

**Objectives:**

- *To ensure the dwelling's orientation and layout is designed to maximise capture and use of prevailing cool breezes in habitable rooms.*

Bed 2 is served by an awning window and a sky light in lieu of the two windows required by the development standard. However, a window in the boundary wall is not a possibility in this situation, as the window would need meet the fire separation requirements of the NCC. Therefore, the proposed design of an awning window and skylight will provide sufficient solar access. Furthermore, the awning window is orientated to the southwest which will allow building occupants to maximise the use of cooling prevailing breezes whilst using this room.

**Residential Design Codes Volume 1 – 5.4.4 External Fixtures, Utilities and Facilities.**

**Design Principles:**

**P4.2** *External location of storeroom, rubbish collection/bin areas, and clothes drying areas where these are:*

- *convenient for residents;*
- *rubbish collection areas which can be accessed by service vehicles;*
- *screened from view; and*
- *able to be secured and managed.*

Due to the allotment configuration that resulted from the subdivision process, the dwelling has been configured to achieve the largest building footprint possible. However, due to the small lot size, the store located within the garage has been reduced to allow for two vehicle parking spaces. The minor 200mm reduction in the minimum width dimension is considered to have a negligible impact on the functionality of the store area. This is due to most garages utilising shelving that is fixed to the garage wall. This results in additional space being gained between the garage piers which is captured in the method of measurement by the R-Codes. Therefore, it is considered that sufficient storage space has been provided for the building occupants that is convenient and will meet their needs.



## **Conclusion**

The landowner, with the designer, seek to create a functionally-sized home which has been thoughtfully designed by achieving the most out of the site, and maintaining the external amenity of the dwelling. By applying the DHOALPP objectives and the R-Codes Design Principles against the proposal it demonstrates that this development proposal has been able to suitably address the relevant criteria. Accordingly, the above justification is tendered for the City's approval.

Yours faithfully,

## **Planning Consultant**

[planning@buildss.com.au](mailto:planning@buildss.com.au)

[www.buildss.com.au](http://www.buildss.com.au)