BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 581764S

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 18/09/2014 published by Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue: Monday, 20 October 2014
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT Planning & Infrastructure

Project summary	
Project name	LOT 100 - THORNTON DR, PENRITH
Street address	Thornton Drive Penrith 2750
Local Government Area	Penrith City Council
Plan type and plan number	deposited -
Lot no.	100
Section no.	-
Project type	attached dwelling house
No. of bedrooms	3

Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 43	Target 40

Certificate Prepared by
Name / Company Name: Building & Energy Consultants Australia
ABN (if applicable): 92 122 407 783

Description of project

Project address	
Project name	LOT 100 - THORNTON DR, PENRITH
Street address	n/a Thornton Drive Penrith 2750
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan -
Lot no.	100
Section no.	-
Project type	
Project type	attached dwelling house
No. of bedrooms	3
Site details	
Site area (m²)	153
Roof area (m²)	96
Conditioned floor area (m2)	103
Unconditioned floor area (m2)	0
Total area of garden and lawn (m2)	48

Assessor details and thermal loads		
Assessor number	BDAV/12/1456	
Certificate number	14561079	
Climate zone	28	
Area adjusted cooling load (MJ/m².year)	28	
Area adjusted heating load (MJ/m².year)	63	
Other		
none	n/a	
Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 43	Target 40

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but <= 9 L/min) in all showers in the development.		✔	✔
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✔	✔
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✔	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✔	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✔	✔	✔
The applicant must configure the rainwater tank to collect rain runoff from at least 44 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✔	✔
The applicant must connect the rainwater tank to: • all toilets in the development		✔	✔
• at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✔	✔

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.			
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✔	✔	✔

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres

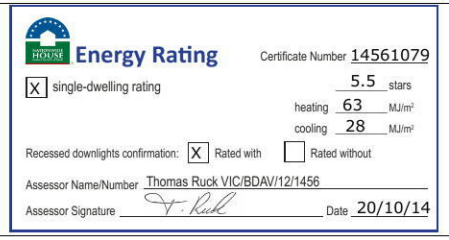
Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✔	✔	✔
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✔	✔
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✔	✔
The cooling system must provide for day/night zoning between living areas and bedrooms.		✔	✔
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✔	✔
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✔	✔
The heating system must provide for day/night zoning between living areas and bedrooms.		✔	✔
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✔	✔
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✔	✔
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✔	✔
Natural lighting			
The applicant must install a window and/or skylight in 1 bathroom(s)/toilet(s) in the development for natural lighting.	✔	✔	✔
Other			

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✔	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✔	

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a ✔ in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a ✔ in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a ✔ in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate(either interim or final) for the development may be issued.

NatHERS - THERMAL COMFORT CERTIFICATE

Project Address: **Lot 100, Thornton Drive** **Penrith, NSW 2750**	
Accreditation # : **BDAV/12/1456**	Certificate # : **14561079**
Software: **BERS 4.2 V110811/A**	Date: **20/10/2014**



Heating load (MJ/m^2)**: 63** **Cooling load** (MJ/m^2)**: 28** **Star rating: 5.5**

Conditioned area (m^2) **: 103** **Unconditioned area** (m^2) **: 0**

Building Elements	Material	Detail
External walls	Brick Veneer	R1.5 Bulk Insulation
	Light Weight Cladding	
Internal walls	Plasterboard on studs	-
Ceiling	Plasterboard	R3.5 bulk insulation
Floors	Concrete-ground floor	Waffle Pod
	Timber-first floor	-
Roof	Metal Roof	Foil (sisalation) to underside of roof
Windows	Aluminium frame, single glazed clear	U value 6.65 or less and SHGC of 0.70 +/- 10%

***Lighting*: This dwelling has been rated with a maximum of 20 non ventilated LED / Fluorescent downlights to insulated ceilings**

Note: Insulation specified must be installed in accordance with Part 3.12.1.1 of the BCA

B.E.C.A (Building & Energy Consultants Australia Pty, Ltd). Unit 35/55-59 Norman St, Peakhurst NSW 2210
Tel: 9533 2388 info@beca.net.au Fax: 9533 2588

COLOUR SCHEDULE

CLIENT:	CHAMPION HOMES
BUILDING ADDRESS:	LOT 100 THORNTON DRIVE, THORNTON

BRICKS:
BORAL ESCURA VELOUR
VOLCANIC

ACRYLIC RENDER #1:
COLOUR MATCH DULUX
LEXICON PN2F1

ACRYLIC RENDER #2:
COLOUR MATCH DULUX
MT EDEN PN2A7

ACRYLIC RENDER #3:
COLOUR MATCH DULUX
PLUM JAM

CLADDING:
TAUBMANS COLORBOND
IRONSTONE

ROOF:
COLORBOND
MONUMENT

ENTRY DOOR:
TAUBMANS COLORBOND
DUNE

GUTTERS & DOWNPIPES:
COLORBOND
MONUMENT

WINDOWS:
SURFMIST

FASCIA & GARAGE DOOR:
COLORBOND
SURFIST

Champion Homes Sales Pty Ltd ACN: 082 497 247 ABN: 33 082 497 247 Builder's Licence Number: 92732C HIA Member Number: 804674
Suite 1/600 Hoxton Park Road Hoxton Park NSW 2171 PO Box 95 Hoxton Park NSW 2171
Sales: 1300 136 200 Construction: (02) 9825 8000 Fax: (02) 9825 8110
Email: champion@championhomes.com.au Website: www.championhomes.com.au

NatHERS Certificate
New Dwelling

5.5 Stars

Simulation Software

Software Name	BERS Pro 4.2
Software Version	Release 110811/A
Engine Version	CHENATH V2.13

Simulation Details

Project Name	LOT 100 - THORNTON DR, PENRITH_1
Date	13/10/2014
Location	PENRITH PC 2750
Climate file	climat28.TXT
Adjusted Star Rating	5.5 Stars
Conditioned Area	100.51 m²
Unconditioned Area	2.60 m²
Adjusted Cooling	27.6 MJ/m²
Adjusted Heating	63.3 MJ/m²
Adjusted Total	91.0 MJ/m²

Dwelling Address

DP Number	
Unit Number	
Lot Number	100
House Number	
Street Name	Thornton Drive
Development Name	
Suburb	Penrith NSW 2750

Client Details

Name	Champion Homes
Phone	02 9825 8000 Fax 02 8783 9338
Email	AntonellaD@championhomes.com.au
Postal Address	PO Box 95 Hoxton Park NSW 2171
Street Details	Suit 1 Level 1, 600 Hoxton Park Road, Hoxton Park, NSW 2171

Assessor Details

Name	Thomas Ruck
Phone	9553 2388 Fax 9533 2588
Email	thomas@beca.net.au
Postal Address	Unit 35, 55-59 Norman St Peakhurst
Street Details	Unit 35, 55-59 Norman St Peakhurst

Signed by the Assessor.....T. Ruck.....Date.....20 / 10 / 14.....

Tilted roof windows with blinds cannot be modelled using this version of BERSPro.
All windows are modelled with Holland Blinds for regulatory purposes.

Development Application – Two Storey Dwelling House & Detached Garage

Statement of Environmental Effects

Lot 100 Thornton Drive, North Penrith
Submitted to Penrith City Council
On Behalf of Landcom

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Appendices

1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Penrith City Council in support of a Development Application (DA) for a dwelling house as part of the North Penrith project.

This DA seeks approval for the construction of a two storey dwelling house with zero lot line and a detached garage accessed off Stoddart Lane and associated landscaping.

The SEE has been prepared by D-Plan Urban Planning Consultants Pty Ltd for **Champion Homes Pty Ltd** and on behalf of Landcom, based on the Architectural Drawings provided by Champion Homes (see **Appendix B**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the site, its environs, the proposed development, and provides an assessment of the proposal in terms of the matters for consideration under Section 79C(1) of the *Environmental Planning and Assessment Act 1979*(EP&A Act).

1.1 Planning Background

On 9 November 2011, the Minister for Planning approved a concurrent Concept Plan (MP 09-04536) and Project Application (MP 10-0078), which was followed by the gazettal of an amendment to the *Penrith City Centre Local Environmental Plan 2008* for the redevelopment of the North Penrith site.

1.1.1 Concept Plan and State Significant Site Listing

The Concept Plan and the Schedule 3 amendment were intended to facilitate the development of a transit oriented and cohesive mixed uses development incorporating residential, retail, commercial, business, civic, community, industrial and recreation uses.

The statutory elements of the approved Concept Plan are contained in the Instrument of Approval and the amendment to Schedule 3 of State Environmental Planning Policy (Major Development) 2005.

The Schedule 3 amendment replaced the former local environmental planning instruments applying to the land and rezoned the land to R1 General Residential,B2 Local Centre, B4 Mixed Use, IN2 Light Industrial, RE1 Public Recreation and R2 Low Density Residential (Thornton Hall and curtilage).The Amendment also identified:

- principal development standards that broadly guide yield and density of future development across the site;
- heritage items and nominated matters for consideration for future development on or within the vicinity of the heritage items must be addressed; and
- the future consent role and approvals requirements/responsibilities.

The Concept Plan Approval included the following:

- land use type and distribution;
- approximately 900 – 1,000 dwellings, comprising a minimum of:
  100 seniors living/aged care dwellings;
  44 affordable/social housing dwellings; and
  44 adaptable dwellings;
- a range of dwelling typologies, building heights and densities;
- a Village Centre located adjacent to the Penrith Railway Station and centred around a public square;
- up to approximately13,500m^2 of retail, business and commercial floor space;

- the retention and protection of land for Thornton Hall, a 19th Century homestead building and its associated curtilage;
- appropriate interpretation of the European and Aboriginal heritage values of the site including retention of Thornton Hall;
- an open space network (including water bodies) of approximately 7ha including the general location, level of embellishment and function of passive and active areas to serve the future residential and worker population;
- a road network and hierarchy for the site and a pedestrian, cycle and public transport network;
- a water cycle management strategy for the development; and
- strategies for the provision of other associated infrastructure including water and sewer (including a new sewer pumping station), power, telecommunications and gas.

1.1.2 Project Application

The Stage 1 Project Application granted approval for:

- subdivision to create 108 lots comprising:
  84 future residential lots;
  1 Village Centre lot;
  16 super lots;
  3 future open space lots, including 1 lot to accommodate the community centre;
  1 future industrial lot;
  1 sewer pumping station lot; and
  2 residue lots;
- site establishment and perimeter security measures;
- establishment of environmental and safety controls and traffic control measures;
- preparatory works, including small building demolition, trees/shrub removal, topsoil stripping and stockpiling for later reuse and the disposal of unsuitable topsoil material, and taking up and stockpiling existing concrete and asphalt hardstands and roads for later reuse in other stages of the construction works;
- bulk earthworks – cut and fill, including the importation of material to raise levels;
- sections of the retaining wall next to the Penrith Training Depot;
- roads and road intersections;
- drainage and stormwater management infrastructure;
- utilities servicing infrastructure, viz: electrical, sewerage (including a sewer pumping station), telecommunications, potable water and gas;
- lots formation;
- minor works external to the site, such as footpaths;
- construction of the community pavilion;
- landscaping;
- erecting informative signage; and
- site de-establishment and handover.

Subsequent Stage Applications creating future residential allotments followed, including the subject allotment on which the proposed development will be situated (Stage 2).

1.1.3 Repeal of Part 3A

The NSW Government repealed Part 3A of the EP&A Act in October 2011. However, Schedule 6A of the EP&A Act sets out the transitional arrangements for projects that were subject to the now repealed Part 3A. Clause 3B of Schedule 6A provides for development that is subject of a Part 3A Concept Plan approval. The relevant provisions of Clause 3B are:

- if Part 4 of the EP&A Act applies to the carrying out of the development, the development is taken to be development that may be carried out with development consent under Part 4 (despite anything to the contrary in an environmental planning instrument),
- any development standard that is within the terms of the approval of the concept plan has effect,
- a consent authority must not grant consent under Part 4 for the development unless it is satisfied that the development is generally consistent with the terms of the approval of the concept plan,
- the provisions of any environmental planning instrument or any development control plan do not have effect to the extent to which they are inconsistent with the terms of the approval of the concept plan, and
- any order or direction made under section 75P (2) when the concept plan was approved continues to have effect.

1.1.4 Amendment of North Penrith LEP

In November 2011 the NSW Minister for Planning made the State Environmental Planning Policy Amendment (North Penrith) 2011 which amended the Penrith City Centre Local Environmental Plan 2008 to include provisions that relate to North Penrith.

1.2 Project Background

The proposed dwelling house has been designed to comply with the principles and numeric requirements of the North Penrith Design Guidelines 2013. Each proposed development is subject to pre-assessment by Landcom before it is submitted to Penrith Council for DA assessment.

2.0 Site Analysis

2.1 Site Location and Context

The North Penrith site is located approximately 50 km to the west of Sydney CBD on the northern side the Penrith CBD. The North Penrith site's southern boundary adjoins the Penrith Railway Station. The North Penrith site is between Lemongrove Road to the east and Castlereagh Road to the west both of which are accessible via Coreen Avenue to the north – see **Figure 1**.

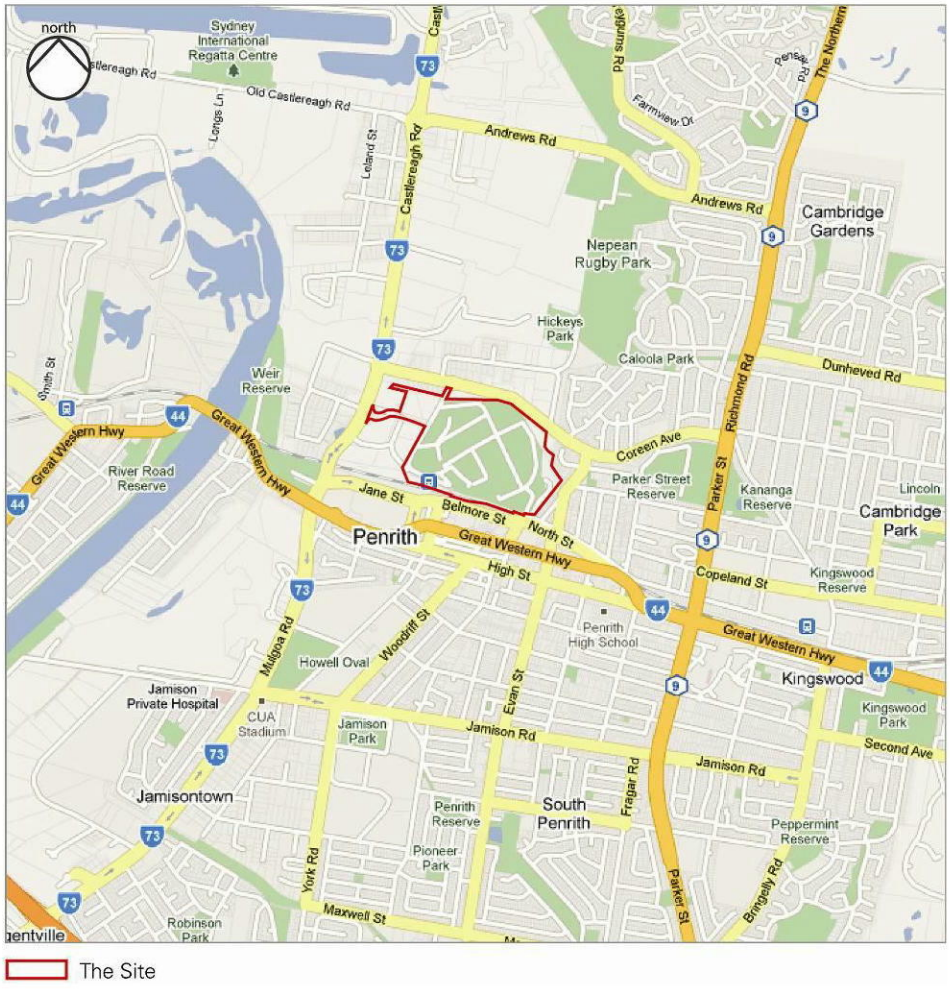

Figure 1 – Location of North Penrith site

2.2 Site Description

The subject land is known as Proposed Lot 100 in unregistered DP, Thornton Drive, North Penrith, which is located on the northern side of Thornton Drive, between Combewood Avenue and Woodman Street. The site has a frontage of 5.1m and a length of 29.9m, comprising a site area of **152.5m^2** and is owned by Landcom.

The site of the proposed development is within residential precinct **B4** as established within the Concept Plan and shown in **Figure 2**. The site is shown on the Location Plan in **Figure 3**.

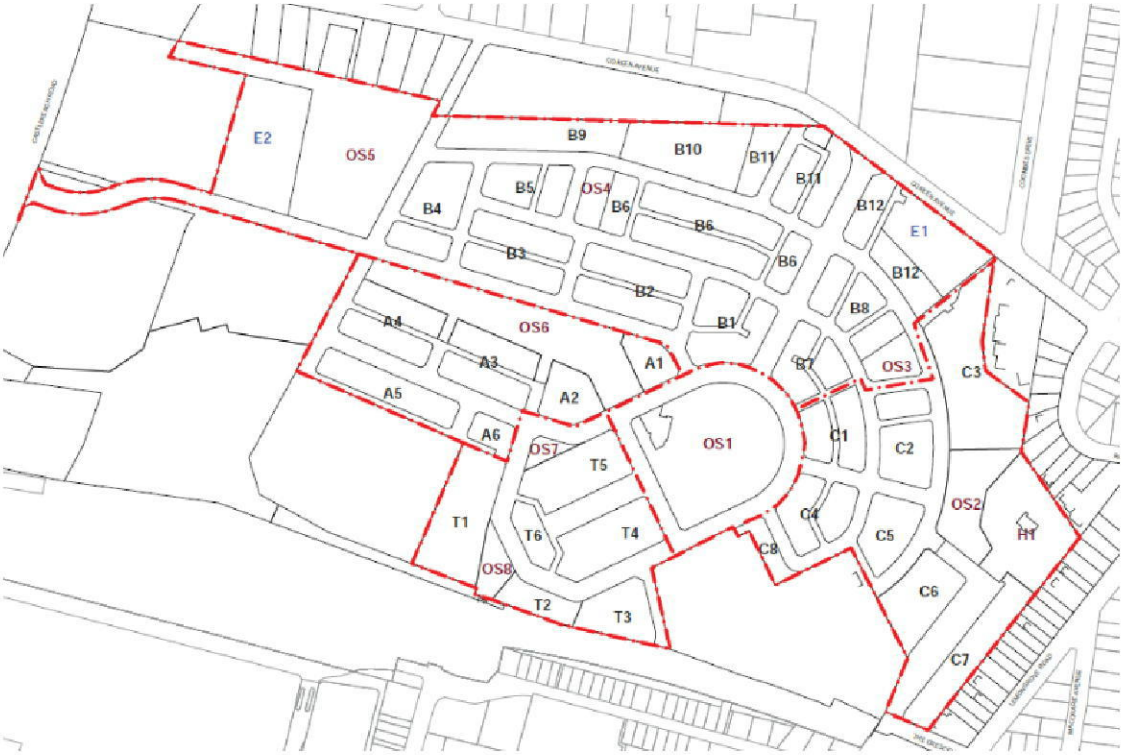

Figure 2– Location plan

LEGEND

Superlots for Integrated Housing Development (may contain studio lofts)

Figure 3 – Location of site

The site's levels have been prepared as part of the Stage 2 Project Application earth works. The site is relatively level and cleared of existing vegetation and does not contain any existing structures. The site has direct frontage to Thornton Drive and Stoddart Lane.

2.3 Surrounding Development

To the north, east and west of the site are currently vacant lots and to the south on the opposite side of the road is allocated open space.

The broader surrounding land uses to North Penrith as shown in **Figure 1** comprise residential, business and industrial uses including:

- industrial development north and east of Coreen Avenue;
- the Penrith Railway Station and the Penrith Town Centre CBD to the south; and
- the existing residential suburb of Lemongrove to the east.

3.0 Description of Proposed Development

This chapter of the report provides a detailed description of the proposed development. Architectural drawings showing the proposed dwelling are located in **Appendix B.** Landscape plans showing the proposed landscape works are located in **Appendix D**.

This DA seeks approval for construction of a two-storey **dwelling house** with zero lot line and associated landscaping and parking in the form of a detached single garage accessed off Stoddart Lane.

3.1 Development Overview

The proposed development seeks approval for the construction of a two-storey dwelling house with a detached garage. **Table 1** provides an overview of the key development information.

The proposed development will connect to the electricity, stormwater, water, sewer, gas and telecommunication services within the road reserve which will be provided as part of the Stage1 Project Application.

Table 1**- Key development information**

Component	Proposal
GFA (m^2)	114.77
Height (m and storeys))	7.4 (two-storey)
Front Setback (m)	3.0 (min)
Side Setback (m)	Zero Lot Line
Rear Setback (mm)	500mm (Garage)
Landscape Area (m^2)	37.39
Private Open Space (m^2)	39.97
Car Spaces	1 space (detached single garage)

3.2 Development Form and Orientation

The architectural character of the proposed dwelling has been designed in accordance with the development principles included in the North Penrith Design Code. As such, the proposed dwelling:

- is of contemporary architectural style and character;
- is appropriately designed to respond to the microclimate including sun, shade, breeze and general weather;
- relates well to and forms a good interface with the overall subdivision, road and open space layout approved for the North Penrith site;
- incorporates appropriate durable and high quality materials, textures, forms and colours that will also complement the local landscape;
- has a well-proportioned and subservient garaged car parking space accessed off the secondary street frontage (Stoddart Lane);
- includes opportunities for indoor/ outdoor relationships; and
- incorporates energy efficient measures.

The two-storey design utilises the width of the site with a zero lot line. Northern orientation ensures that solar access is readily available to the internal and external living areas.

3.3 External Materials and Finishes

The proposed external materials and finishes are shown on the plans in **Appendix B.** External finishes including colours and textures have been selected from the Residential Design Palette included in the North Penrith Design Code to provide a contemporary appearance and ensure use of a variety of building materials.

3.4 Landscape and Open Space

The proposed landscape treatment is shown in the Landscape Plans in **Appendix D** and has been designed to contribute to the overall form of the dwelling and to provide versatile and functional outdoor living areas.

3.5 Access and Parking

The dwelling will be accessed from Thornton Drive which it fronts via a direct pedestrian pathway, whilst a detached single width garage accommodates the car parking with access off Stoddart Lane.

Garage dominance is addressed by positioning the garage at the rear of the allotment with access off the laneway, being the secondary street frontage as required. The detached garage is **3.59m** x **5.99m** with a door opening **2.41m** wide and is setback **500mm** (min) from Stoddart Lane.

3.6 Stormwater

The drains will connect to the stormwater drainage infrastructure within the road, as approved as part of the Stage Project Application. The lot drains directly to the street stormwater system. All stormwater will ultimately drain into the overall integrated stormwater management system for the broader North Penrith site.

3.7 Utility Services

Telephone, electricity, gas, water and sewer services will be installed underground within each of the adjoining road reserves. These services will be installed within trenches in the road reserves.

3.8 Erosion and Sediment Control

Erosion and sedimentation control measures will be implemented during construction in accordance with the Proposed Site-Works Plan which forms part of the Architectural Plans **see Appendix B**.

4.0 Assessment of Planning Issues

This chapter contains our assessment of the environmental effects of the proposed development as described in the preceding chapters of this report.

Under Section 79C(1) of the EP&A Act, in determining a development application the consent authority has to take into account a range of matters relevant to the development including the provisions of environmental planning instruments; impacts of the built and natural environment, the social and economic impacts of the development; the suitability of the site and whether the public interest would be served by the development.

A number of planning issues which would usually be considered as part of a DA were addressed as part of the Concept Plan and Project Application Environmental Assessments. As the proposed development is consistent with the Concept Approval these issues do not require further assessment (see Section 4.2). These issues include:

- Social and Economic Issues
- Community Services and Facilities
- Transport and Accessibility
- European Heritage
- Indigenous Heritage
- Geotechnical, Soil and Contamination
- Biodiversity
- Visual Impact
- Water and Hydrology
- Ecological Sustainable Development
- Utilities and Infrastructure
- Crime and Public Safety

Pursuant to Section 75P(1)(a) of the EP&A Act, Schedule 3 of the North Penrith Concept Approval sets out specific future environmental assessment requirements that apply to future development under Part 4 of the EP&A Act.

Accordingly, the assessment provided in this SEE includes the aforementioned matters in addition to other potential planning issues which are relevant to the detailed design of the building under the Concept Approval.

4.1 Compliance with Relevant Strategic and Statutory Plans and Policies

The following legislation, strategies and planning instruments, which are relevant to the proposed development to be addressed:

- State Environmental Planning Policy 55 – Remediation of Land (SEPP 55);
- State Environmental Planning Policy (State and Regional Development) 2005 (S&R SEPP);
- State Environmental Planning Policy (BASIX) 2008 (SEPP BASIX);
- Sydney Regional Environmental Plan Hawkesbury-Nepean River;
- Penrith City Centre Local Environmental Plan 2008; and
- North Penrith Design Code 2013.

The DA's consistency and compliance with the relevant statutory plans and policies is located in **Table 2** below and in the detailed Table of Compliance in **Appendix H**. Variations to, and non-compliance with the key standards and guidelines highlighted in the table are discussed in detail in the following sub-sections of this environmental assessment.

Table 2 – Summary of consistency with key strategic and statutory plans and policies

Instrument/Strategy	Comments	
State Planning Instruments and Controls		
SEPP 55	The Stage Project Application will undertake the necessary works to ensure the site is suitable for the proposed residential use.	
S&R SEPP	Clause 11 of Schedule 2 sets out certain types of development in North Penrith that is State Significant Development. The proposed development for a dwelling is not a type of development specified. As such it would not be State Significant Development and is therefore a DA to Council.	
SEPP (BASIX)	A BASIX Certificate is included in **Appendix C**.	
SREP No.20 Hawkesbury Nepean River	The proposed development complies with the broad aims and objectives of the SREP in that it will not have any direct impact on any environmentally sensitive areas, or the water quality or quantity of the aquatic ecosystem on the site, which the SREP seeks to preserve. Consideration of the impacts of the proposed development has been undertaken in accordance with the aims of the SREP and its strategies. Impacts of this proposal were considered in the Concept Plan and Stage 1 Project Application before the preparation of this application.	
Local Planning Instruments and Controls		
Penrith City Centre LEP 2008 (Part 7)	Clause 49 - Zoning	The site is zoned as R1 General Residential.
	Clause 50–Land Use Table – Zone R1 General Residential	All kinds of residential developments are permissible in the R1 General Residential Zone.
	Clause 51 - Height of Buildings (**12m**)	The proposed development will have a maximum height of two-storeys or approximately **7.4m** and therefore complies with the maximum height specified by this clause.
	Clause 53– Architectural Roof Features	The development does not include an architectural roof feature that exceeds the height limit set out in clause 53.
	Clause 54 – Heritage Conservation	The site is not on land where a heritage item is located or in the vicinity of a heritage item.

Instrument/Strategy	Comments	
	Clause 55 - Earthworks	The proposal does not include substantive earthworks, which have been completed as part of the subdivision works.
North Penrith Design Code	Building Envelopes	The proposed development complies with the building envelope controls in Section 3.3 of the Design Code. See Section 4.3.3 below.
	Building Design and Articulation	The proposed development complies with the Building Design and Articulation controls in section 3.4 of the Design Code. See Section 4.3.1 below.
	Private Open Space and Landscaping	The proposed development complies with the Private Open Space and Landscaping controls in section 3.5 of the Design Code. See Section 4.4 below.
	Fencing	The proposed fencing has been provided in accordance with Section 3.6 of the Design Code.
	Garages, Site Access and Parking	The proposed development complies with Section 3.7 of the Design Code.
	Visual and Acoustic Amenity	The proposed development complies with Section 3.8 of the Design Code.
	Specific Provisions - Key Sites	The proposed site is not identified in Figure 14 of the Design Code.
	Specific Provisions - Ancillary Dwellings	The proposed development does not comprise any ancillary dwellings.

4.2 Consistency with the Concept Plan

The North Penrith Concept Plan Approval established the vision and planning framework to be used by Penrith Council to assess the detailed design of future buildings on the site. The Concept Plan Approval contains:

- Terms of Approval;
- Future Environmental Assessment Requirements;
- Statement of Commitments; and
- North Penrith Design Code.

Development for the purposes of a residential dwelling on this lot is consistent with the Concept Plan Terms of Approval and Statement of Commitments.

4.3 Urban Design and Built Form

The proposed design and layout for development is considered suitable given that:

- the provision of more compact and efficiently shaped allotments enables affordable, yet amenable dwelling designs to be constructed;
- the subdivision pattern maximises the opportunity for a greater number of dwellings to obtain views across the public open space and the public domain; and
- the dwelling design endeavours to ensure that a high quality product continues to be delivered within the North Penrith site.

4.3.1 Design Quality

The proposed dwelling design is a high quality product that generally accords with the objectives and outcomes sought by the North Penrith Design Code. The proposed dwelling will have a positive impact upon the built environment and streetscape in that:

- the proposed dwelling is sympathetic in terms of scale, height, bulk and design in accordance with that envisaged in the Design Code;
- the dwelling is appropriately designed to respond to the microclimate including sun, shade, breeze and general weather;
- the dwelling offers the ability to form a good interface with the public domain;
- the dwelling incorporates appropriate materials, textures, forms and colours that complement the local landscape and other future residential development;
- the dwelling incorporates energy efficient measures; and
- the dwelling has private outdoor spaces in the form of courtyards or soft landscaped areas.

4.3.2 Streetscape

As shown in the proposed architectural drawings in **Appendix B**, the proposed design for the dwelling will have a positive impact on the North Penrith site as a whole and the local streetscape for the following reasons:

- the proposed design will contribute to an attractive and varied streetscape;
- the proposed design is of a high quality contemporary architectural design which will contribute to the character of the local environment and provide an attractive visual outlook;
- the proposed dwelling will use high quality and durable finishes to ensure that it fits in with the residential character of the estate and provides visual amenity for this part of the North Penrith site;
- the dwelling is designed to address the street frontage;
- the use of architectural elements help define the dwelling entry and façade; and
- the garage is accessed off the laneway and therefore has no relationship with the primary frontage.

4.3.3 Building Envelopes

The proposed dwelling complies with the minimum required building envelope controls at Section 3.3 of the North Penrith Design Code. The proposal provides an articulation feature which addresses Thornton Drive and the garage is accessed off Stoddart Lane. Given the minor nature of the laneway in terms of road hierarchy (i.e., the short length of the laneway between cross streets and limited vehicular and pedestrian traffic etc), garages and/or studios are encouraged within the specified 8m building zone, which the proposed garage sits within.

4.3.4 Overshadowing

The Architectural Plans in **Appendix B** include shadow diagrams depicting the shadows cast by the dwelling at 9am, 12noon and 3pm during the winter solstice. These diagrams show that the development is able to achieve the required 2 hours of solar access between 9am and 3pm during the winter solstice.

4.3.5 Privacy

The proposed dwelling has been designed to minimise the potential for adverse visual and acoustic privacy impacts on the adjacent dwellings as follows:

- Zero Lot Line, therefore, no window openings along the side elevations;
- Positioning low impact rooms, such as bedrooms and bathroom amenities on the first floor level; and
- Adequate setbacks (as discussed above).

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4.3.6 Internal Amenity

The internal layout of the dwelling provides open plan layouts for ease of movement and efficient use of space. All rooms are functional and provide for both formal and informal living.

There is a good relationship between the indoor and outdoor living areas.

All bedrooms are adequately sized, have built-in storage and have easy access to bathrooms.

4.3.7 Energy Efficiency

A BASIX certificate has been prepared for the proposed dwelling and this is included in **Appendix C**. The certificate indicates that the BASIX scores meet or exceed the BASIX target rates for water, thermal comfort and energy.

The BASIX commitments that form part of this proposal include the use of water efficient fixtures and energy efficient cooling, heating and ventilation systems and appliances, and the provision of a rainwater tank and insulation.

4.4 Landscape Design

The dwelling will be landscaped in accordance with the Landscape Plans included in **Appendix D**. These plans have been designed in accordance with the development controls for private open space and landscaping included at Section 3.5 of the North Penrith Design Code.

Based on the site's characteristics and proposed dwelling design, the landscape design is appropriately structured to take into consideration:

- views;
- northerly aspects;
- prevailing westerly winds; and
- the location of easements and on-site services.

As a result of these considerations the development includes:

- gardens that are compatible in scale and form with the dwelling;
- integrated outdoor and internal living areas, allowing outdoor areas to act as an extension of the internal living areas;
- reduced stormwater runoff, increased water infiltration and beneficial air and water exchange to tree roots through the use of porous and permeable paving solutions such as gravel;
- a microclimate suited to seasonal conditions;
- reduced water consumption through the provision and use of rainwater tanks that can be used for garden watering;
- the use of water efficient plants; and
- integration with the proposed landscaping for public areas and road reserves.

4.5 Construction and waste management

Construction activity involves disturbing soils during construction of dwellings and landscaping. Accordingly, there is some potential for unconsolidated soils to be eroded by water and wind action.

The Proposed Site-Works Plan submitted and included in the Architectural Drawings in **Appendix B**, will provide the necessary measures to ensure that soil and sediment remains on site and is prevented from entering the broader stormwater system for the North Penrith site.

Further, all waste material resulting from construction on the site will be disposed of, recycled or reused in accordance with the parameters set out in the Waste Management Plan included in **Appendix G**.

4.6 Stormwater management

Stormwater will run into the broader integrated stormwater system for the North Penrith site as approved under the respective Project Application. This integrated approach to the stormwater management will:

- protect natural systems – including the rehabilitated lake system and further downstream, the protected wetland and the greater Hawkesbury- Nepean Catchment;
- integrate stormwater management with the provision of open space;
- protect water quality – by filtering stormwater from the urban environment prior to draining to the lake system;
- reduce run-off and peak flows – through localised detention measures; and
- add value while maintaining development costs in its construction and long term maintenance.

4.7 Contamination

Investigations undertaken as part of the Concept Plan assessment have concluded that the site is suitable for the proposed development without need for further investigations or remediation. Hence, the site is suitable for the proposed development with regard to the issue of contamination.

4.8 Social and Economic Impacts

This proposal will further commence the transformation of vacant and disused land into a functioning and attractive residential community close to public transport and existing infrastructure.

During construction, construction personnel are likely to patronise local shops and services - providing a temporary economic benefit to these businesses. New residents will also patronise local shops and services and start to develop a residential community as envisaged.

4.9 Site Suitability

The site is considered suitable for the proposed development on the basis that it:

- does not contain any heritage items, nor is it associated with heritage values;
- contains the necessary services to support development such as water, sewer reticulation, electricity and telecommunications; and
- will include the necessary infrastructure to support residential development, including the provision of roads and stormwater measures.

The proposed development is suitable for the site in that it:

- is permissible with consent pursuant to SEPP Major Development;
- adds to the diversity of residential development to be delivered throughout the North Penrith site;
- provides a more affordable housing typology to that of single freestanding dwellings;
- will provide diversity in the design outcomes for the streetscapes throughout the North Penrith site;
- the development generally complies with the relevant built form development controls within the North Penrith Design Code; and
- will provide additional housing choice for local populations.

4.10 Public Interest

The development proposed in this application will contribute to the overall delivery of a unique residential development that will complement and support the Penrith Town Centre as envisaged by the approved Concept Plan and the North Penrith DC. Hence, no element of the proposal will be detrimental to the public interest.

5.0 Conclusion

This DA seeks approval for construction of a two-storey dwelling house with zero lot line and associated landscaping and parking in the form of a detached single width garage accessed off Stoddart Lane.

The proposed development is consistent with the approved Concept Plan. Furthermore, the development:

- is consistent with the objectives of SREP No.20 – Hawkesbury – Nepean River;
- is generally consistent with the provisions of SEPP Major Development and the North Penrith Design Code ;
- will implement suitable sediment and erosion measures to be used during construction to ensure minimal impact to stormwater quality;
- will further progress the transformation of predominantly vacant land into a functioning and attractive residential community which will have economic and social benefits to the wider community;
- has a design that is of a high quality contemporary architectural design and generally complies with Design Code built form development controls; and
- will add to the varied and diverse streetscape within the North Penrith site.

In light of the merits of the proposal and in the absence of any significant adverse environmental, social or economic impacts, we have no hesitation in recommending that the application be approved subject to standard conditions of consent.

APPENDIX “A”

SITE SURVEY

APPENDIX “B”

ARCHITECTURAL PLANS

APPENDIX "C"

BASIX CERTIFICATE

APPENDIX “D”

LANDSCAPE PLAN

APPENDIX “E”

SIGNED DA FORM
&
OWNERS CONSENT

APPENDIX "F"

NOTIFICATION PLANS

APPENDIX "G"

WASTE MANAGEMENT PLAN

Waste Management Plan

Lot 100 Thornton Drive, North Penrith

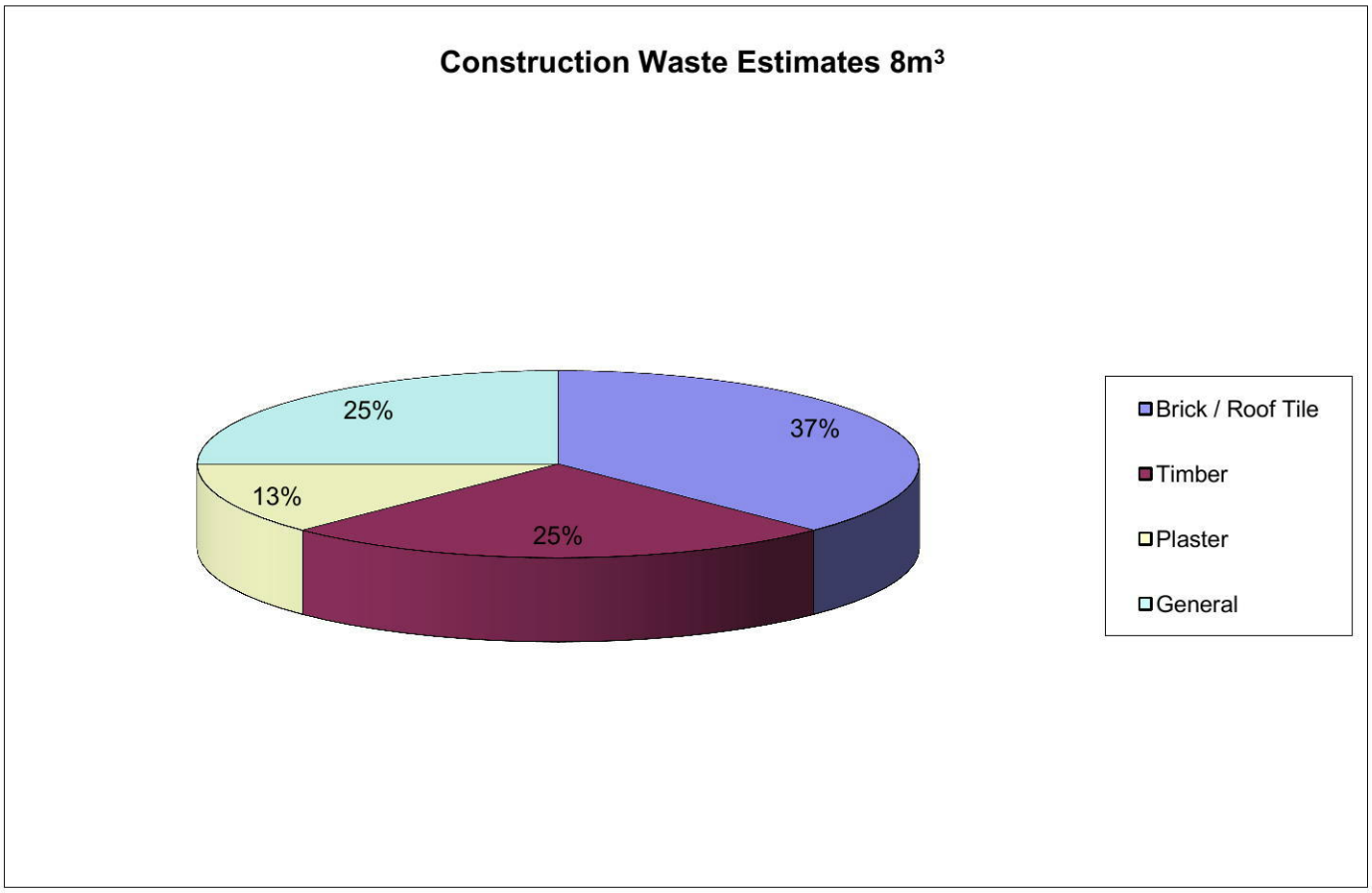
Prepared by:
D-Plan Urban Planning Consultants Pty Ltd
PO Box 201, Liverpool, NSW, 1871
Ph: (02) 9802 5030

Waste Management Plan

Proposal

Site Address
Lot 100 Thornton Drive, North Penrith
Applicant
Champion Homes
PO Box 95
Hoxton Park, NSW, 2171
PH: (02) 9825 8000
Fax: (02) 9825 8110
Existing Structures on Site
Vacant Lot
Description of Proposal
To erect a two storey dwelling with a detached garage

Summary



Demolition Phase – N/A (Vacant Lot)

MATERIALS ON SITE	DESTINATION				
	Reuse and Recycle				Disposal
Type of materials estimated	Vol (*m3)	Wt (*t)	ON – SITE Proposed reuse and/or Recycling Methods	OFF – SITE Contractor and/or Recycling outlet	Contractor and/or Landfill Site

General waste may contain interior tiles (ceramic and other), plastics and glass. Waste is separated at recycling station nominated

- Green waste may comprise surface scrape, tree stumps and green materials, taken away by contractor for mulching.

Construction Phase

MATERIALS ON SITE	DESTINATION				
	Reuse and Recycle				Disposal
Type of materials estimated	**Vol (*m3)**	**Wt (*t)**	**ON – SITE Proposed reuse and/or Recycling Methods**	**OFF – SITE Contractor and/or Recycling outlet**	**Contractor and/or Landfill Site**
Brick / Roof tiles	3 or 37%			Veolia Construction Waste Division (formerly known as Collex)	
Timber	2 or 25%			Veolia Construction Waste Division (formerly known as Collex)	
Plasterboard	1 or 13%			Veolia Construction Waste Division (formerly known as Collex)	
General Waste	2 or 25%			Veolia Construction Waste Division (formerly known as Collex)	

General waste may contain interior tiles (ceramic and other), plastics and glass. Waste is separated at recycling station nominated

Ongoing Management

Type of waste to be generated	Expected volume per week	Proposed onsite storage	Destination
Residual waste	140 Litres	Waste bin provided by Council	Council Weekly Service
Organic waste	240 Litres	Waste bin provided by Council	Council Fortnightly Service
Recycling waste	240 Litres	Waste bin provided by Council	Council Fortnightly Service

Waste Management Guidelines Applied

*D - Plan and Champion Homes follow strict Waste Management policies of **A**void **R**euse **R**ecycle and **D**ispose.*

CONTRACTOR AND OFFSITE VENUES SUMMARY

Construction Waste Contractor

Veolia Environmental Services formerly known as Collex (Construction Waste Division)

Ph: 4961 9111

Veolia was selected as one of the largest construction recyclers with offsite sorting and recycling services. Veolia has become Australia's environmental services leader in all facets of waste management and resource recovery.

Note: It is not mandatory that the nominated contractors are used, however it is a council requirement that proof of (disposal receipts) are kept.

APPENDIX "H"

TABLE OF COMPLIANCE

Table of Compliance – Lot 100 Thornton Drive, North Penrith

Section	Provisions	Proposal	Compliance (Y/N or N/A)
State Environmental Planning Policy No. 55 – Remediation of Contaminated Land			
7. Contamination and remediation to be considered in determining development application	(1) A consent authority must not consent to the carrying out of any development on land unless: (a) it has considered whether the land is contaminated, and (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.	The subdivision works will undertake the necessary works to ensure the site is suitable for the proposed residential use.	Y
State Environmental Planning Policy (BASIX)			
6. Buildings to which Policy applies	(1) This Policy applies to buildings arising from the following development: (a) proposed BASIX affected development for which the regulations under the Act require a BASIX certificate to accompany a development application or an application for a complying development certificate or construction certificate,	A BASIX Certificate is provided as part of the DA.	Y
Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River			
5. General planning considerations	The general planning considerations relevant for this Part are: (a) the aim of this plan, and (b) the strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and (c) whether there are any feasible alternatives to the development or other proposal concerned, and (d) the relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored.	Impacts of this proposal were considered with the Concept Plan and Stage Project Applications before the preparation of this application.	Y
6. Specific planning policies and recommended strategies	Clause 6 sets out a suite of planning policies and strategies that relate to the following issues in the vicinity of the Hawkesbury-Nepean River system: (1) Catchment management (2) Environmentally sensitive areas (3) Water quality	The cumulative effects of all of the development at North Penrith on the Hawkesbury-Nepean River system and catchment have been considered during the preparation of the Concept Plan.	Y

	(4) Water quantity (5) Cultural heritage (6) Flora and fauna (7) Riverine scenic quality (8) Agriculture/aquaculture and fishing (9) Rural residential development (10) Urban development (11) Recreation and tourism (12) Metropolitan strategy	North Penrith includes a site-wide stormwater management system to ensure the quality and quantity of stormwater from the entire site does not undermine the policies and strategies set out in this clause. This dwelling will be suitably integrated into the site-wide systems.	
11. Development Controls	This clause sets out matters for consideration and development controls for specific types of development.	Development for the purposes of residential dwellings is not specified in this clause.	N/A
Penrith City Centre Local Environmental Plan 2008			
Clause 49 - Zoning	For the purposes of this Part, land within the North Penrith site is in a zone as follows if the land is shown on the Land Zoning Map as being in that zone: (a) Zone R1 General Residential, (b) Zone R2 Low Density Residential, (c) Zone B2 Local Centre, (d) Zone IN2 Light Industrial, (e) Zone RE1 Public Recreation.	The site is zoned as R1 General Residential.	Y
Clause 50 – Land Use Table – Zone R1 General Residential	The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone. **Zone R1 General Residential** **1 Objectives of zone** • To provide for the housing needs of the community. • To provide for a variety of housing types and densities. • To enable other land uses that provide facilities or services to meet the day to day needs of residents. **2 Permitted without consent** Home businesses; Home industries; Home occupations	All kinds of residential accommodation are permissible in the R1 General Residential Zone. As such, the proposed residential dwelling is permissible. The proposal is for a residential dwelling to meet the housing needs of the community, therefore, it is consistent with the objectives of the zone.	Y

	3 Permitted with consent Building identification signs; Business identification signs; Child care centres; Community facilities; Exhibition homes; Exhibition villages; Food and drink premises; Neighbourhood shops; Places of public worship; Recreation areas; Recreational facilities (indoor); Recreational facilities (outdoor); Residential accommodation; Residential care facilities; Respite day care centres; Roads **4 Prohibited** Any development not specified in item 2 or 3		
Clause 51 - Height of Buildings	The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.	The proposed development will have a maximum height of approximately **7.4m** and therefore complies with the maximum height specified by this clause.	Y
Clause 53 – Architectural Roof Features	(2) Development that includes an architectural roof feature that exceeds, or causes a building to exceed, the height limits set by clause 51 may be carried out, but only with development consent. (3) Development consent must not be granted to any such development unless the consent authority is satisfied that: (a) the architectural roof feature: (i) comprises a decorative element on the uppermost portion of a building, and (ii) is not an advertising structure, and (iii) does not include floor space area and is not reasonably capable of modification to include floor space area, and (iv) will cause minimal overshadowing, and (b) any building identification signage or equipment for servicing the building (such as plant, lift motor rooms, fire stairs and the like) contained in or supported by the roof feature is fully integrated into the design of the roof feature.	The development does not include an architectural roof feature that exceeds the height limit set out in clause 51.	Y
Clause 54 – Heritage Conservation	(5) Heritage assessment The consent authority may, before granting consent to any development: (a) on land on which a heritage item is located, or (b) on land that is within the vicinity of land referred to in paragraph (a), require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item concerned.	The site is not on land where a heritage item is located or in the vicinity of a heritage item. As such no heritage management document has been prepared.	N/A

Clause 55 - Earthworks	(3) Before granting development consent for earthworks, the consent authority must consider the following matters: (a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality, (b) the effect of the proposed development on the likely future use or redevelopment of the land, (c) the quality of the fill or the soil to be excavated, or both, (d) the effect of the proposed development on the existing and likely amenity of adjoining properties, (e) the source of any fill material and the destination of any excavated material, (f) the likelihood of disturbing relics, (g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.	The proposal does not include substantive earthworks which have been completed as part of the subdivision works. A Proposed Site-Works Plan has been prepared to ensure potential impacts to watercourses during construction activities are appropriately managed.	Y
North Penrith Design Code			
3.1 Housing Density and Diversity	Between 900 and 1,000 dwellings are envisaged across the whole precinct. To ensure that a minimum of 900 dwellings is achieved as part of a subdivision application that creates more than 20 lots, the applicant is required to demonstrate that the sub-precinct dwelling target ranges shown in Figure 6 and the table below can be achieved. Subject to agreement of Council and consultation with relevant landowners, dwelling yields may be 'traded' between sub-precincts as long as it meets overall targets and objectives of this DCP.	The proposal does not involve subdivision.	N/A
3.2 Subdivision	The proposal is not for subdivision so the subdivision controls have not been transcribed here.	The proposal does not involve subdivision.	N/A
3.3 Building Envelopes	(1) The maximum number of storeys for residential development is shown at Figure 8. The maximum number of storeys for the site is three (3).	The dwelling will have 2 storeys – which complies with the 3 storey height limit specified in Figure 8.	Y
	(2) For all residential development (excluding residential flat buildings), the floor area of the third storey is to be no more than 60% of the second storey.	No habitable third stories are proposed.	N/A
	(3) The location and siting of the third storey is to ensure adequate solar access and privacy for the lot and adjacent residential lots.	No habitable third stories are proposed.	N/A

	(4) Development adjacent to a laneway (i.e. ancillary dwelling) is to be no more than 2 storeys.	The proposal does not include development adjacent to a laneway.	N/A
	(5) For 1 - 3 storey residential development within the R1 zone (except for ancillary dwellings), a minimum floor to ceiling height of 2,550mm is to be provided for all ground floor living spaces. A preferred height of 2,700mm is encouraged for enhanced internal amenity.	The dwelling has a ceiling height of **2.735m** on the ground floor.	Y
	(6) The maximum depth of a dwelling (exclusive of roofs and privacy screens etc) from the front building line is: ▪ 15m for the second storey (identified as L2 on Figures 9-10 in DCP), ▪ 12m for any third storey component of a dwelling (identified as L3 on Figures 9-10 in DCP).	The depth of the dwelling from the front building line is **11.73m** for the second storey and no third storey is proposed.	Y
	(7) The maximum depth of an ancillary dwelling (exclusive of roofs and privacy screens etc) from the rear boundary is 8m.	The proposal does not include development for an ancillary dwelling.	N/A
	(8) Front setbacks for residential development within the R1 Zone (except for residential flat buildings) are (see Figures 9 and 10 of DCP): ▪ between 3m and 4.5m (to the front facade line), except on the western side of H1 (Thornton Hall heritage carriageway) where the front setback from the boundary line is to accommodate tree retention and access driveway, ▪ a minimum 5.5m (and a minimum 1m behind the front facade line) for the garage, and ▪ 0m to the secondary street (for a corner allotment) except for the first 7m of allotment which to be setback at 2m to accommodate the articulation zone requirements at Section 3.4 (see Figures 9-10).	The dwelling is set back **3.0m** to the front façade line. The detached garage is set back **500mm** from the Stoddart Lane frontage.	Y
	(9) The rear setback for the ground floor level of a dwelling is 0.9m. This does not apply to garages and ancillary dwellings adjacent to a rear lane which may be built to the rear boundary. A rear setback of 3m is required for all allotments that back onto the existing residential allotments fronting Lemongrove Road and for Block C3.	The rear setback from the ground floor of the dwelling is **greater than 0.9m** (i.e., **12.87m**)	Y

<table>
<tr>
<td></td>
<td>(10) The minimum side setback requirements for residential development within the R1 Zone (except for residential flat buildings) is to be consistent with the table below. Projections permitted into side and rear setback areas include sun hoods, gutters, down pipes flues, light fittings and electricity or gas meters, rainwater tanks and hot water units and the like.
<table>
<tr><th>Dwelling type</th><th>Minimum side setbacks</th></tr>
<tr><td>Ancillary dwellings</td><td>0m on both sides
0m to rear lane</td></tr>
<tr><td>Multi-unit housing, attached dwellings</td><td>0m on both sides</td></tr>
<tr><td>Semi-detached dwellings</td><td>0m to 1 side
0.9m to 1 side</td></tr>
<tr><td>Dwelling houses (lots <8m wide)</td><td>0m on both sides</td></tr>
<tr><td>Dwelling houses (lots 8m wide and greater)</td><td>0m to 1 side
0.9m to 1 side - except for where permitted by (11) below</td></tr>
</table>
</td>
<td>The proposal is for a dwelling house on a lot < 8m wide with the following setbacks:
▪ Zero on both sides</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>(11) Despite (3.3.10), zero setbacks on both side boundaries for ancillary dwellings and dwelling houses are permitted where the following conditions apply:
▪ the dwellings are designed in a coordinated manner so as to ensure compliance with the relevant controls within this DCP, in particular, the private open space, privacy and solar access provisions,
▪ construction of adjoining dwellings is undertaken either concurrently or sequentially,
▪ reciprocal maintenance easements are included on adjoining allotment title (as per 3.2.3), and
▪ compliance with the relevant aspects of the Building Code of Australia.</td>
<td>Meets requirements</td>
<td>Y</td>
</tr>
</table>

	(12) Where a studio loft above a garage straddles a property boundary, the central maintenance setback is not required. Appropriate arrangements for maintenance are to be included within the stratum lot title for the studio loft.	The proposal does not include a studio loft above a garage that straddles a property boundary.	N/A
	(13) Variations to the building envelope controls contained within Section 3.3 are permitted where it is part of an 'Integrated Development Application' and the applicant can demonstrate that a good level of residential amenity can be achieved to both the proposed dwellings and adjacent properties.	The proposal is not for an Integrated Development Application.	N/A
3.4 Building Design and Articulation	(1) Particular attention is to be paid to the design quality of the front facade of a dwelling. An articulation zone is to be provided in front of the front facade line as illustrated at Figures 9 and 10. The articulation zone: ▪ is to be setback at least 1 metre from the front boundary, ▪ must extend at least 7m from the front boundary line along the secondary street frontage (for corner allotments), and ▪ may extend over 2 storeys (for 2 and 3 storey development).	Articulation zones to the front façade of the dwelling have been incorporated in accordance with Figures 9 and 10 as follows: • Setback from the front boundary by approximately **1.92m**.	Y

<table>
<tr>
<td></td>
<td>(2) The front articulation zone should include at least 1 primary element or 2 secondary elements from the list below. Where a primary element is included, it should have a minimum depth of 2m. The minimum depth for a secondary element is 500mm.
<table>
<tr><th>Primary elements</th><th>Secondary elements</th></tr>
<tr><td>Verandah / porch</td><td>Entry feature or porticos</td></tr>
<tr><td>Balcony (incl upper level balcony over garage door)</td><td>Awnings or other features over windows</td></tr>
<tr><td>Pergola</td><td>Eaves and sun shading</td></tr>
<tr><td></td><td>Window box treatment</td></tr>
<tr><td></td><td>Recessed or projecting architectural elements</td></tr>
<tr><td></td><td>Bay windows</td></tr>
</table></td>
<td>The proposal includes two secondary elements, being a porch with a depth of 1.19m and a balcony with a depth of 1.19m.</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>(3) For corner allotments the articulation zone is to be a minimum depth of 2m from the primary and secondary frontages and may include either primary and / or secondary elements as listed above.</td>
<td>The site is not a corner allotment.</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>(4) For allotments located on the southern, eastern and western side of a street, the articulation zone may be designed to incorporate private open space, including principal private open space.</td>
<td>The private open space area of the dwelling will receive the required solar access.</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>(5) Consideration should be given to expressing the third storey of a dwelling in a more lighter weight manner than the structure below, through the use of material and colours and the like.</td>
<td>The proposal does not incorporate a third storey.</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>(6) Eaves are to provide sun shading, to protect windows and doors and provide aesthetic interest. Subject to 3.2.3, eaves should have a minimum of 600mm overhang (measured to the fascia board). Council will consider alternative solutions to eaves so long as they provide appropriate sun shading to windows and display a high level of architectural merit.</td>
<td>Adequate shading to windows is provided along the front and rear elevations. The BASIX Certificate demonstrates that the dwelling achieves satisfactory energy efficiency rating.</td>
<td>N</td>
</tr>
</table>

<table>
<tr><td></td><td>(7) Building colours, materials and finishes are to be consistent the Residential Design Palette included at Appendix C.</td><td>The building colours, materials and finishes have been designed to be consistent with the Residential Design Palette.</td><td>Y</td></tr>
<tr><td></td><td>(8) Multicoloured roof tiles are not permitted.</td><td>No multi-coloured tiles are proposed.</td><td>Y</td></tr>
<tr><td>3.5 Private Open Space and Landscaping</td><td>(1) Each dwelling is required to be provided with an area of Private Open Space (POS) and Principal Private Open Space (PPOS) consistent with the table below.
<table>
<tr><th></th><th>Studio Loft</th><th colspan="3">Multi-unit housing, attached & semi-detached dwellings and dwelling houses</th></tr>
<tr><th>Lot width*</th><th></th><th><6m</th><th>6-10m</th><th>10m+</th></tr>
<tr><td>POS</td><td>Studio and 1 bed: 4m^2 & min dimension 1m
2+ bed: 8m^2 & min dimension 1m</td><td>Minimum 20% of site area & min dimension of 2m</td><td>Minimum 20% of site area & min dimension of 2m</td><td>Minimum 20% of site area & min dimension of 2m</td></tr>
<tr><td>PPOS</td><td>n/a</td><td>16m^2 & min dimension of 3m</td><td>18m^2 & min dimension of 3m</td><td>24m^2 & min dimension of 4m</td></tr>
</table></td><td>The proposal is on a lot with a frontage of 5.1m.

The proposal includes POS as follows:
▪ <u>26% of site area</u>; and
▪ <u>18m^2</u> PPOS with minimum 3m dimension in Principle POS.</td><td>Y</td></tr>
<tr><td></td><td>(2) The location of PPOS is to be determined having regard to allotment orientation, dwelling layout, adjoining dwellings, landscape features, and the preferred locations of PPOS illustrated at Figure 11. Where an allotment is located on the southern, eastern and western side of a street, the PPOS may be located at the front of the dwelling in the form of a front garden court, verandah or balcony. PPOS located in the front of a dwelling must be useable and adjacent to a living space.</td><td>The PPOS is located at the rear of the site in order to maximise privacy and to achieve comfortable usable external living areas without being excessively exposed to sunlight at all times during the year.</td><td>Y</td></tr>
<tr><td></td><td>(3) Where the PPOS is a balcony or roof top area, it must be provided with a fence or landscaped screen at least 1m in height, and be directly accessible from a habitable room.</td><td>The PPOS does not include a balcony or rooftop area.</td><td>N/A</td></tr>
</table>

	(4) The POS of the studio loft is to be located and designed so as to minimise visual and acoustic privacy impacts upon the principal dwelling and its associated POS.	The proposal is not for a studio loft.	N/A
	(5) (1) Fifty per cent of the area of the required PPOS (of both the proposed development and the adjoining properties) should receive at least 2 hours of sunlight between 9am and 3pm at the winter solstice (21 June). (2)"Despite Clause (5(1), at least 70% of the total number of dwellings that are proposed as part of an integrated development should receive a minimum of 2 hours direct sunlight between 9am and 3pm at the winter solstice (21 June) to at least fifty per cent of the area of the PPOS of each dwelling."	Shadow diagrams have been prepared for the development. They show that at least 50% of the PPOS receives at least 2 hours of sunlight on the winter solstice.	Y
	(6) The first 1m of a site, measured from the front boundary, (excluding driveways, footpaths etc) is to be soft landscaped. Landscaping within the front yard is to comprise species from the Residential Design Palette included at Appendix C.	Soft landscaping is provided for a distance of 1m from the front boundary with species which are from the Residential Design Palette.	Y
3.6 Fencing	(1) Front fencing is required for all residential allotments. Front fencing is to: ▪ be between 700mm and 1.2m high (including feature elements), ▪ be generally open in design and may comprise a solid component that is no higher than 700mm, ▪ extend along the side boundaries to the front facade line (or at least 1m behind the front facade line for dwelling houses), ▪ extend along the secondary street frontage to match the length of the articulation zone, and ▪ are not to impede safe sight lines for pedestrians and / or traffic.	The proposal includes low scale fencing with piers of **1200mm** in height and open infill panels. Treated pine fencing **1800mm**, will also be used, which is designed to comply with the fencing controls.	Y
	(2) The design, materials and colour of front fencing is to be consistent with the Residential Design Palette included at Appendix C.	The design, materials and colours are consistent with the Residential Design Palette.	Y
	(3) Where a dwelling is located adjacent to open space, boundary fencing is to be of a high quality material and finish. Articulated post and paling fences (with exposed posts) are preferred in these locations. The design of the	The proposed development will not directly abut open space.	N/A

	fencing is to permit casual surveillance of the open space and provide the dwelling with outlook towards the open space.		
	(4) Timber paling or lapped / capped fencing only can be used internally between allotments. No sheet metal fencing is permitted within the project.	No sheet metal fencing is proposed.	Y
3.7 Garages, Site Access and Parking	(1) The **maximum** parking rates for multi-unit housing, attached and semi-detached dwellings and dwelling houses are: ▪ 1-2 bedroom: 1 space per dwelling, and ▪ 3+ bedroom: 2 spaces per dwelling.	The proposal is for a 4 bedroom dwelling and provides **1 car parking space**.	Y
	(2) All visitor parking is to be provided on-street.	Visitor parking is available on the street.	Y
	(3) Parking for affordable housing and seniors housing is to be in accordance with *State Environmental Planning Policy (Affordable Rental Housing)* 2009 and *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* respectively.	The proposal is not for affordable housing or seniors housing.	N/A
	(4) The garage arrangement is to be consistent with Figures 12 and 13 in that: ▪ for lots less than 8m wide, all garaging is to be accessed from the rear lane (if rear loaded). If there is no rear laneway, a single / tandem garage is permitted at the front, ▪ for lots between 8m and 12m wide, garaging may comprise a single / tandem front loaded garage or a rear loaded, double / tandem garage, and ▪ for lots greater than 12m wide, garaging may either comprise a double front loaded garage or a rear loaded, double / tandem garage.	The site is **5.1m** wide and provides a single width garage accessed from the laneway.	Y
	(5) The maximum width of a garage door is 3.2m and 6m for single / tandem and double garages respectively. Where a studio loft is included, its own garage or carport requires access from the rear lane.	The garage door width is **2.41m**.	Y
	(6) Carports and garages are to be treated as an important element of the dwelling facade and interface with the public domain. They are to be integrated with and complementary, in terms of design and material, to the	Garage dominance is not an issue.	Y

	dwelling design. Garage doors are to be visually recessive through use of materials, colours, overhangs and the like.		
	(7) The location of driveways is to be determined with regard to dwelling design and orientation, street gully pits and tree bays and is to maximise the availability of on-street parking.	The driveway has been designed having regard to the dwelling design and orientation.	Y
	(8) All parking and driveway access is to comply with AS 2890.1 - 2004.	Parking and driveway access complies with AS2890-2004.	Y
3.8 Visual and Acoustic Amenity	(1) Direct overlooking of main habitable areas and private open spaces of adjacent dwellings should be minimised through building layout, window and balcony location and design, and the use of screening devices, including landscaping.	The dwelling has been designed to minimise overlooking through building layout, window and balcony location, and the use of screening devices, including landscaping.	Y
	(2) Habitable room windows with a direct sightline to the habitable room windows in an adjacent dwelling within 3m are to: ▪ be obscured by fencing, screens or appropriate landscaping, or ▪ be offset from the edge of one window to the edge of the other by a distance sufficient to limit views into the adjacent window, or ▪ have sill height of 1.5m above floor level, or ▪ have fixed opaque glazing in any part of the window below 1.5m above floor level.	The dwelling does not have any habitable room windows with a direct sightline to the habitable room windows in an adjacent dwelling within 3m.	Y
	(3) A screening device is to have a maximum of 25% permeability to be considered effective.	No screening device is proposed or considered necessary.	N/A
	(4) The design of attached dwellings must minimise the opportunity for sound transmission through the building structure, with particular attention given to protecting bedrooms and living areas.	The construction method of the party walls achieves the required sound attenuation measures.	Y
	(5) In attached dwellings, bedrooms of one dwelling are not to share walls with living spaces or garages of adjoining dwellings, unless it is demonstrated that the shared walls and floors meet the noise transmission and insulation requirements of the Building Code of Australia.	The design provides bedrooms on the first floor level.	Y

	(6) Residential development in close proximity to the railway corridor, Coreen Avenue, the east and west sides of the Boulevard, the upgraded commuter car park and those flanking the entry road from Coreen Avenue to the commuter car park, are to include design measures so as to achieve the following internal noise levels at these residences: ▪ a target internal noise level of 35 dB(A) LAeq is to apply in the sleeping areas, and ▪ a target internal noise level of 40 dB(A) LAeq in other living areas. To achieve these target levels, the acoustic performance of the most exposed facades of these residences are recommended to provide an Rw (weighted sound reduction index) + Ctr (spectrum adaptation factor) of not less than 50dB for the composite wall area. Reference can be made to the BCA for details on deemed-to-satisfy construction.	The proposal is not located in close proximity to the railway.	N/A
	(7) Residential buildings further within the development (and not affected by heavy vehicle noise along the Boulevard) may achieve a construction of 10 dB less than the above specified targets.	The site is located so as not to be affected by noise from the Boulevard.	N/A
3.9 Development in Proximity to a Rail Corridor	(1) The siting and design of developments on land sited on or within 60m of an operating rail corridor or land reserved for the construction of a railway line is to address matters raised in the Interim Guidelines for Applicants – consideration of rail noise and vibration in the planning process (RailCorp) and where appropriate, incorporate any recommendations into the design of the development.	The proposal is not within 60m of the railway corridor.	N/A
	(2) In assessing applications for development on land sited on or within 60m of an operating rail corridor or land reserved for the construction of a railway line, the consent authority is to have regard to the matters raised in the Interim Guidelines for Councils – consideration of rail noise and vibration in the planning process (RailCorp) and where appropriate, any matters raised by Rail Corporation New South Wales to the development.	N/A	N/A

3.10 Specific Provisions - Key Sites	**Entry Boulevard Lots** ▪ A minimum building height of 2 storeys is required for all lots. A third storey is preferred on corner lots. ▪ Dwelling facades are to display high quality materials and finishes consistent with the Residential Design Palette (Appendix C). ▪ Despite Section 3.7, all garaging is to be from the rear lane. ▪ Front fencing is to generally consistent and assist in unifying the streetscape.	The site is not an entry boulevard lot.	N/A
	'Dress Circle' Park Lots ▪ A building height of 3 storeys is encouraged for all dwellings (except for ancillary dwellings). ▪ A high level of consistency of built form and massing is required across the dwelling frontages to achieve a harmonious streetscape and a strong urban edge to the oval. ▪ Buildings are to take advantage of the location overlooking the oval with front balconies and terraces. ▪ Dwellings are to display high quality materials and finishes consistent with the Residential Design Palette (Appendix C). ▪ Identical facades are to be limited to no more than 4 dwellings in a row. ▪ Despite Section 3.7, all garaging is to be from the rear lane.	The site is not an entry boulevard lot.	N/A
	Innovation Lots ▪ Housing is to demonstrate how compact, affordable dwellings can achieve a high level of internal amenity (see examples at Appendix B). ▪ Dwellings are to be single or double storey and may include 0m side and rear setbacks.	The site is not an innovation lot.	N/A
	Canal Edge Lots ▪ A minimum building height of 3 storeys is encouraged for all residential dwellings (except for ancillary dwellings). ▪ Building form and massing is to create a strong consistent edge to the canal. ▪ Entrances stairs to dwellings off the canal walk are to be paired together. ▪ The ground floor level and front yard / private open space of the dwellings is to be raised above the level of the pedestrian boardwalk to provide privacy for	The site is not a canal edge lot.	N/A

<table>
<tr><td></td><td>the dwellings.
▪ Detailing of front fencing and landscaping (fronting the canal) is to balance privacy and surveillance issues. The front fencing treatment is to be of high quality and consistent along the full length of the canal frontage.
▪ The dwelling facades are to display high quality materials and finishes consistent with the Residential Design Palette (Appendix C).
▪ Buildings are to take advantage of the location overlooking the canal and include high levels of glazing and front balconies and terraces.
▪ Despite Section 3.7, all garaging is to be from the rear lane.</td><td></td><td></td></tr>
<tr><td></td><td>Opportunity Site
▪ The Opportunity Site may accommodate a variety of land uses, in addition to residential, such as commercial office, institution, education uses or the like, adjacent to the Village Centre.
▪ Non-residential uses fronting the canal should address the canal with semi-active uses.
▪ The road and block pattern within the site may vary in response to alternative uses.
▪ Building heights (of up to 6 storeys) are permitted for uses on the Opportunity Site.</td><td>The site is not an opportunity site.</td><td>N/A</td></tr>
<tr><td>3.12 Specific Provisions - Ancillary Dwellings</td><td>(1) Subdivision applications that involve the creation of a laneway are to nominate the preferred location of an ancillary dwelling so as to achieve an acceptable degree of passive surveillance within the laneway. The preferred locations for ancillary dwellings are shown at Figure 17.</td><td></td><td>N/A</td></tr>
<tr><td></td><td>(2) Ancillary dwelling development is to be consistent with the controls in the table below.
<table><tr><th>Element</th><th>Control</th></tr><tr><td>Setbacks</td><td>0m to sides and to laneway</td></tr><tr><td>Max. building height</td><td>2 storeys (ie 1 floor above the garage)</td></tr><tr><td>Private open space (required for studio lofts only)</td><td>Studio and 1 bed: 4m^2, min dimension 1m
2+ bed: 8m^2, min dimension 1m</td></tr></table></td><td>There are no ancillary dwellings proposed on the site.</td><td>N/A</td></tr>
</table>

	Max car parking: Secondary dwellings - 0 spaces; Studio lofts - 1 space		
	(3) The design and layout of studio lofts is to minimise overlooking and overshadowing of the private space of the principal dwelling and any adjacent dwellings.	The proposal does not involve a studio loft.	N/A
	(4) Strata title subdivision of a studio loft into a separate allotment will be permissible only where the following are provided: ▪ appropriate private open space, ▪ separate pedestrian access, ▪ one on-site car parking space, ▪ separate services for mail delivery and waste collection, and an on-site garbage storage area which is not visible from public street, ▪ separate connections and metering for utilities, and ▪ compliance with the Building Code of Australia.	The proposal is not for strata title subdivision of a studio loft.	N/A