



**CAMPBELLTOWN  
CITY COUNCIL**

# **LOCAL PLANNING PANEL**

**27 November 2019**

## MEETING NOTICE

### Campbelltown City Council Local Planning Panel

The meeting of the Campbelltown City Council Local Planning Panel will be held in Civic Centre, Campbelltown on **Wednesday, 27 November 2019 at 3.00pm.**

## MEETING AGENDA

### 1. ACKNOWLEDGEMENT OF LAND

I would like to acknowledge the Traditional Custodians, the Dharawal people, whose Lands we are now meeting on. I would like to pay my respects to the Dharawal Elders, past and present and all other Aboriginal people who are here today.

### 2. APOLOGIES

### 3. DECLARATIONS OF INTEREST

### 4. REPORTS

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4.1 Partial demolition and works to heritage item and construction of multi dwelling development - 50 Badgally Road, Claymore

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## **General Information**

The role of the Local Planning Panel is to determine development applications and provide advice on planning proposals.

When the panel is considering a report relating to a development application, the panel will receive and consider verbal submissions from the applicant and from any person that made a written submission in regard to that development application (during the notification or exhibition period).

As required by the Minister's Local Planning Panels Direction, when considering a planning proposal, the role of the panel is to provide advice to Council. The panel is the first step in the evaluation process before Council and the State Government (through the Gateway process) to decide whether to support a formal public exhibition or consultation period on the proposal. It is possible that the proposal will be modified before or as part of the consideration by Council and/or through the Gateway process. The panel will consider verbal submissions made in relation to the matter from the applicant, if there is one, and from any other person. The panel will not consider written submissions tabled at the meeting, however they will be accepted and passed on to Council officers for consideration in their report to Council.

Any person who makes a verbal submission to the panel must identify themselves and must also accept that their presentation will include their images and sounds and will be webcast and stored on Council's website for future viewing. Any person who makes a verbal submission to the panel must also declare before their submission any political contributions or donations they have made over the last four years exceeding \$1,000 to any political party or candidate who contested the last Ordinary Election of Council.

If you would like to make a verbal submission to the panel, it is necessary to submit the "request to address – community access to meetings" form available on Council's website by midday the day prior to the meeting. The panel chair will invite the registered speakers to the table at the appropriate time in the agenda. Verbal submissions to the panel will be limited to five minutes each. The chairperson has the discretion to extend the period if considered appropriate. Panel members will have the opportunity to ask you questions at the end of your submission.

### **Recommendations of the Panel**

The reports are presented to the Local Planning Panel for its consideration, advice and determination if the report is for a development application.

After the panel has considered submissions made by interested parties, the panel will make recommendations to the Council if the report relates to a planning proposal and determination if the report relates to a development application. The panel's recommendations/determinations become public by 4.30 the Friday following the Local Planning Panel meeting.

### **Information**

Should you require information regarding the panel or any item listed on the agenda, please contact Council's City Development Division on 4645 4575 between 8.30am and 4.30pm.

The following report is referred to the Local Planning Panel Panel for its consideration and recommendation.

Lindy Deitz  
General Manager

## 4. REPORTS

### 4.1 Partial demolition and works to heritage item and construction of multi dwelling development - 50 Badgally Road, Claymore

#### Community Strategic Plan

Objective	Strategy
4 Outcome Four: A Successful City	4.3 - Responsibly manage growth and development, with respect for the environment, heritage and character of our city

#### Referral Criteria

This proposal is considered sensitive development in accordance with the referral criteria Local Planning Panels Direction – Development Applications as the site is identified as a local heritage item under Schedule 5 of the Campbelltown Local Environmental Plan 2015 and demolition is proposed. Under Section 4.8 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) the determining authority is the Campbelltown Local Planning Panel.

#### Executive Summary

- This development application proposes minor demolition and works to the existing dwelling, demolition of buildings and structures, tree removal, relocation of the existing barn/stables and conversion to dwelling and the construction of 73 dwellings as a multi dwelling housing development and associated site works at Lot 2, DP 1017017, 50 Badgally Road, Claymore.
- The subject site is zoned part R2 Low Density Residential and part SP2 Infrastructure under the provisions of the Campbelltown Local Environmental Plan 2015.
- The site is identified as a local heritage item known as Hillcrest, Item No. 145 under Schedule 5 of the Campbelltown Local Environmental Plan 2015. The site contains a dwelling, barn/stables and a range of ancillary structures with dense and mature vegetation surrounding the dwelling. The proposal seeks consent for part demolition of the dwelling, and the dismantling, relocation and rebuilding of the barn/stables and removal of ancillary structures.
- The application was publicly exhibited and notified to adjoining and surrounding residents and land owners from 5 February 2019 for 14 days. One submission was received in objection to the proposal.
- The Heritage Impact Statement provided with the application fails to adequately assess the full extent of the heritage significance of the site. A conservation management plan has not been submitted to accompany the development application.
- The site is not considered suitable for the proposed development due to the proposal's failure to adequately identify the sites heritage significance, satisfy the heritage provisions under Clause 5.10 of the Campbelltown Local Environmental Plan 2015 and comply with a number of requirements listed in Council's Development Control Plan.

- The application fails to satisfactorily resolve critical deficiencies that were raised throughout the assessment process, specifically regarding the compatibility with the surrounding urban environment, compliance with stormwater and water quality requirements, impacts of traffic, parking and access, issues surrounding on-site waste management, vegetation removal, and the impacts from adjoining noise sources on the development.
  - An assessment under Section 4.15 of the EP&A Act has been undertaken and it is recommended to the panel that the application be refused for reasons outlined in this report.
  - The proposal is not considered to be in the public interest.
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### Officer's Recommendation

That development application 4457/2018/DA-M for works on the site of a heritage item including minor demolition and works to existing dwelling, demolition of buildings and structures, tree removal, relocation of barn/stables and conversion to dwelling and construction of a multi dwelling housing development at Lot 2, DP 1017017, 50 Badgally Road, Claymore be refused for the reasons outlined in attachment 1.

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### Purpose

To assist the Panel in its determination of the subject application in accordance with the provisions of EP&A Act.

<b>Property Description</b>	Lot 2 DP 1017017, 50 Badgally Road, Claymore
<b>Application No</b>	4457/2018/DA-M
<b>Applicant</b>	DWA
<b>Owner</b>	Blueroad Pty Ltd
<b>Provisions</b>	Campbelltown 2027 – Community Strategic Plan State Environmental Planning Policy 55 - Remediation of Land State Environmental Planning Policy (Infrastructure) 2007 Greater Metropolitan Regional Environmental Plan No. 2 - Georges River Catchment State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 Campbelltown Local Environmental Plan 2015 Campbelltown (Sustainable City) Development Control Plan 2015
<b>Date Received</b>	10 December 2018

## Site History

The site is identified as a local heritage item known as Hillcrest (item No. I45 under Schedule 5 of the Campbelltown Local Environmental Plan 2015).

## The Site and Surrounding Locality

The subject site is known as 50 Badgally Road, Claymore and legally defined as Lot 2 DP1017017. The site is rectangular in shape and has a total area of 2.343ha with a frontage of 84.735m to Badgally Road. Vehicular access is achieved via Badgally Road from the south west.

The site includes a local heritage item known as Hillcrest, item I45 under Schedule 5 of the Campbelltown Local Environmental Plan 2015. The site contains a dwelling, barn/stables, a range of modern ancillary structures and dense mature vegetation surrounding the dwelling.

Surrounding development comprises of the Hume Motor way (M31) to the south, the Claymore residential redevelopment site Hillcroft to the north, locally listed heritage item Glenfield Cottage (CLEP 2015, item I44) to the north west and Glenroy Park to the north east (across Badgally Road).

The topography of the site generally slopes towards the front southern property boundary with a generally flat platform surrounding the dwelling which falls away to the site's front and rear boundaries.

## The Proposal

The proposed development will comprise the following:

- Minor demolition works to the dwelling and removal of ancillary structures as detailed on demolition plan prepared by DWA, DWG DA-05, Rev HH
- Removal of 78 trees and the retention of nine trees
- Tree protection measures for the nine trees
- Dismantling, relocation and rebuilding of existing brick barn/stables to be used as a dwelling and associated restoration works
- Provision of communal open space centrally located within the site and recreation of heritage entry drive and carriage loop
- Construction of 73 two storey multi dwellings each containing single garages. Twelve of the proposed multi dwellings will be adaptable units
- Construction of a deceleration lane from Badgally Road into the site, construction of internal roads and associated infrastructure
- Provision of 38 off street visitor car spaces, two motorbike spaces and four bicycles spaces
- Associated support infrastructure including internal pedestrian paths, waste collection areas, fencing, landscaping and drainage works.

## Report

### 1. Vision

#### Campbelltown 2027 Community Strategic Plan

Campbelltown 2027 is the Community Strategic Plan for the City of Campbelltown. The Strategic Plan addresses four key strategic outcomes that Council and other stakeholders will work to achieve over the next ten years:

- Outcome 1: A vibrant, liveable city
- Outcome 2: A respected and protected natural environment
- Outcome 3: A thriving, attractive city
- Outcome 4: A successful city

The proposal would contribute towards housing supply to the Claymore area which is consistent with Strategy 1.8 of Outcome 1 which requires Council to enable a range of housing choices to support different lifestyles.

Despite consistency with strategy 1.8 of Outcome 1, the proposal is inconsistent with the strategy 4.3 of Outcome 4 which requires Council to responsibly manage growth and development, with respect for the environment, heritage and character of our city. The proposal fails to adequately assess the heritage significance of the site and the built form proposed will have adverse impacts on the heritage values of the item.

It is considered that the proposed development is not consistent with the long term vision for the Campbelltown and Macarthur Region having regard to the site's heritage significance.

### 2. Planning Provisions

The development has been assessed in accordance with the heads of consideration under Section 4.15 of the EP&A Act and having regard to those matters the following issues have been identified for further consideration.

#### 2.1. State Environmental Planning Policy 55 - Remediation of Land (SEPP55)

SEPP 55 requires the consent authority to consider whether the subject land of any development application is contaminated.

Council's Environmental officer (contamination) reviewed the submitted DSI report prepared by Reditus, dated 10 May 2019, Version 1 and the following advice was provided:

The report does not provide a satisfactory basis for Council to determine the suitability of the site from a contaminated land perspective for the following reasons:

- a) The potential contamination from onsite storage of drums and liquid containers has not been adequately assessed:
  - i. The storage of drums, vehicles and containers is an activity that has a material risk of land contamination.
  - ii. The sampling methodology has discounted this as a parameter.
  - iii. The resulting sampling plan did not include any targeted sampling of these areas.



- iv. The resulting sampling plan took the minimum density from the NSW Sampling Design Guidelines. This gives a 95 percent UCL hotspot detection radius of 15.29m. The size areas that were used for drum and container storage appears to be far smaller than this and there is, therefore, a greater than 5 percent chance that one or more of these hotspots could be missed by the whole of site sampling regime.
- b) The potential contamination from old building materials (lead paint, asbestos, termite treatments) have not been adequately assessed:
  - i. The report acknowledges the risk of contamination from building materials but does not undertake targeted sampling for this risk.
  - ii. The broader sampling grid does not provide adequate information to assess this risk.

Further targeted sampling is required to be undertaken for these AECs to determine what, if any, contamination has occurred.

Based on the above assessment, the proposal was not accompanied by satisfactory information to properly consider the matters prescribed by Clause 7(1) of SEPP 55 and the application should not be supported.

## **2.2. State Environmental Planning Policy (Infrastructure) 2007**

Clause 102 of the SEPP applies to development proposing residential development that is on land in or adjacent to the road corridor for a freeway, a tollway or a transitway or any other road with an annual average daily traffic volume of more than 20,000 vehicles (based on the traffic volume data published on the website of Road and Maritime Service (RMS)) and that the consent authority considers is likely to be adversely affected by road noise or vibration.

The development site adjoins a portion of the Hume Motorway and is subject to the provisions of this clause.

Before determining a development application for development to which this clause applies, the consent authority must take into consideration any guidelines that are issued by the Secretary for the purposes of this clause and published in the Gazette.

Development that is for the purposes of residential accommodation, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded:

- (a) In any bedroom in the residential accommodation—35 dB(A) at any time between 10 pm and 7 am.
- (b) Anywhere else in the residential accommodation (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.

The applicant has submitted a Traffic Noise Intrusion Assessment prepared by Harwood Acoustics Acoustical consulting dated 7 December 2018 and revised dated 8 July 2019. The Traffic Noise Intrusion Assessment provides an assessment against the required noise criteria prescribed in Clause 102 of the ISEPP and concludes these internal noise level requirements set by this clause can be achieved subject to the implementation of the recommendations contained in Section 5 of this report.

Building construction recommendations include:

- Increased provisions to non-masonry external wall elements
- Increased provisions to roof and ceiling materials
- Increased glazing thicknesses specific to allocated noise impact zone
- Minimum 1.2m acoustic front boundary fence along Badgally Road
- Minimum 35mm solid core timber construction entry doors
- Any mechanical ventilation to comply with BCA requirements
- Glazing requirements as required for Zone 2 units, subject to permissibility and heritage impacts.

The proposed building construction recommendations contained within the Traffic Noise Intrusion Assessment prepared by Harwood Acoustics Acoustical, dated July 2019 has not adequately demonstrated that appropriate measures will be taken to ensure that the LAeq levels required under Clause 102 of this SEPP, will not be exceeded for all proposed and existing heritage dwellings.

The development proposes vehicular access via Badgally Road and Badgally road is not identified as a Classified Road. The provisions of Clause 104, Traffic-generating development pursuant to Schedule 3 of the SEPP are not triggered and concurrence from the RMS is not required.

Despite the proposal not triggering the provisions of Clause 104, the development application was referred to the RMS for comment due to its location adjacent to the Hume Motorway and number of dwellings accessing Badgally Road.

The development application was referred to the RMS on 15 February 2019 and the RMS provided comments on 27 March 2019 advising no objections to the proposed land use application is raised and requested that if the application be supported, conditions listed in this referral are incorporated into any consent issued by Council in order to promote the orderly, safe and efficient operation of the Hume Motorway.

Those conditions relate to construction measures and requirements near the Hume Motorway. A copy of the RMS referral comments are provided as an attachment to this report.

### **2.3. Greater Metropolitan Regional Environmental Plan No. 2 - Georges River Catchment (GMREP)**

The development site is located within the Georges River Catchment, therefore the provisions of the GMREP apply to the subject application.

The general aims and objectives of this GMREP are as follows:

- (a) To maintain and improve the water quality and river flows of the Georges River and its tributaries and ensure that development is managed in a manner that is in keeping with the national, State, regional and local significance of the Catchment.
- (b) To protect and enhance the environmental quality of the Catchment for the benefit of all users through the management and use of the resources in the Catchment in an ecologically sustainable manner.

- (c) To ensure consistency with local environmental plans and also in the delivery of the principles of ecologically sustainable development in the assessment of development within the Catchment where there is potential to impact adversely on groundwater and on the water quality and river flows within the Georges River or its tributaries.
- (d) To establish a consistent and coordinated approach to environmental planning and assessment for land along the Georges River and its tributaries and to promote integrated catchment management policies and programs in the planning and management of the Catchment.
- (e) (Repealed)
- (f) To provide a mechanism that assists in achieving the water quality objectives and river flow objectives agreed under the Water Reform Package.

The proposal does not conflict with any of the relevant provisions of the GMREP and is considered acceptable in this regard.

#### **2.4. State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004**

The aim of this Policy is to ensure consistency in the implementation of the BASIX scheme throughout the State and an application for development consent in relation to certain kinds of residential development must be accompanied by a list of commitments by the applicant as to the manner in which the development will be carried out.

A satisfactory BASIX Certificate has been provided for the proposal and the proposal is considered acceptable in this regard.

#### **2.5. Draft Environmental Planning Instrument**

Section 4.15 – (1)(a)(ii) of the EP&A Act requires consideration of any proposed instrument that has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved).

Council has prepared and publicly exhibited a planning proposal that proposes an amendment to the LEP2015 which seeks to prohibit multi dwelling housing within the R2 Low Density Residential Zone. Council resolved to forward this proposal to the Department for finalisation on 11 June 2019.

The draft Planning Proposal (556/2019/E-PP) has been forwarded to the Minister for Planning for finalisation pursuant to Section 3.36 of the EP&A Act. The proposed amendment will include a savings clause to permit the determination of development applications made before the commencement of the amendment to CLEP 2015 as if the amendment to the plan had not been made.

#### **2.6. Campbelltown Local Environmental Plan 2015 (CLEP 2015)**

The subject site is zoned part R2 Low Density residential and part SP2 Infrastructure (road) under the provisions of Campbelltown Local Environmental Plan 2015. The application proposes multi dwelling housing and multi dwelling housing is currently permissible with consent within the R2 zone.

Multi dwelling housing is defined as three or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.

Proposed multi dwellings are consistent with the above mentioned land use definition.

The proposal also includes ancillary works to support the multi dwellings including road works, access and deceleration lane across the portion of land zoned SP2 Infrastructure (road) and roads are permissible with consent within an SP2 Zone.

### **R2 Low Density Residential Zone**

The objectives of the R2 zone are:

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To enable development for purposes other than residential only if that development is compatible with the character of the living area and is of a domestic scale.
- To minimise overshadowing and ensure a desired level of solar access to all properties.
- To facilitate diverse and sustainable means of access and movement.

The proposed development is inconsistent with the first objective of the R2 zone, which requires development to provide for the housing needs of the community within a low density residential environment as the proposal presents a built form that is characteristic of a medium density residential development through the provision of continuous row terrace style housing.

The proposed development is inconsistent with the fourth objective of the R2 zone, which requires development to minimise overshadowing and ensure a desired level of solar access to all properties as the proposal fails to achieve solar access requirements as required under Volume 1, Part 3 of the Campbelltown (Sustainable City) DCP 2015.

The proposed development is inconsistent with the fifth objective of the R2 zone, which is focused on accessibility within low density residential environments and requires development to facilitate diverse and sustainable means of access and movement. The proposal fails to demonstrate the site is capable of accommodating the proposed density without compromising the amenity of the existing and future traffic environment - namely pedestrian, cycle and vehicle safety.

### **SP2 Infrastructure Zone**

The objectives of the SP2 zone are:

- To provide for infrastructure and related uses.

- To prevent development that is not compatible with or that may detract from the provision of infrastructure.
- To encourage activities involving research and development.
- To optimise value-adding development opportunities, particularly those associated with research.
- To provide for the retention and creation of view corridors.
- To preserve bushland, wildlife corridors and natural habitat.
- To maintain the visual amenity of prominent ridgelines.

The proposed development is not inconsistent with the objectives of the SP2 zone.

#### **Clause 2.7 Demolition requires development consent**

Clause 2.7 requires the demolition of a building or work may be carried out only with development consent. Minor demolition works to 'Hillcrest' dwelling, removal of buildings and structures on site and the relocation and rebuilding of the existing barn/stables is proposed and consent is sought under the subject application.

#### **Clause 4.1C Minimum qualifying site area and lot size for certain residential and centre-based child care facility development in residential zones**

Clause 4.1C (3) states that development consent may be granted to development for multi dwellings on land in an R2 zone, if the area of the lot is equal to or greater than 1,000 square meters.

The land size zoned R2 exceeds the minimum 1,000 square meters requirement.

#### **Clause 4.3 Height of Building**

Clause 4.3 provides that the height of a building on any land is not to exceed the maximum height shown for the land on the Height of Building Map. The Height of Building Map identifies a maximum height of 8.5 metres. The proposal complies with the maximum building height prescribed for the site.

#### **Clause 4.3A Height restrictions for certain residential accommodation**

Clause 4.3A requires a dwelling that forms part of multi dwelling housing must not be higher than two storeys. Dwellings proposed under this application are not greater than two storeys at any point.

#### **Clause 4.4 Floor Space Ratio**

Clause 4.4 (2A) prescribes the maximum floor space ratio for multi dwelling housing in Zone R2 Low Density Residential is 0.45:1.

The site contains an area of 2.343 hectares with a portion of the site zoned SP2 (Road). The area zoned SP2 (road) is excluded from the FSR calculations in accordance with Clause 4.5 (4) of the CLEP 2015.

The proposal complies with the maximum floor space ratio prescribed for the site.

#### **Clause 5.1 Relevant acquisition authority**

Clause 5.1(2) identifies Council as the relevant authority for acquisition. Part of the site is identified for acquisition on the land reservation acquisition map that forms part of CLEP 2015. The area identified for acquisition is the part of the site zoned SP2 Infrastructure.

The application proposes works within this portion of land which relate to access to the subject site.

#### **Clause 5.1A Development on land intended to be acquired for public purposes**

Clause 5.1A states development consent must not be granted to any development on land to which this clause applies other than development for a purpose specified opposite that land in Column 2 of the table.

Development for the purposes of flood mitigation works and roads is development that can take place on land zoned Zone SP2 Infrastructure and marked local road.

The subject site is part zoned SP2 Infrastructure (road) and the proposal notes this portion of the site is nominated as to be dedicated to Council. This application proposes works within this portion of land which relate to site access.

#### **Clause 5.10 Heritage conservation**

Clause 5.10(1) states development consent is required for demolishing or moving or altering the exterior (including, in the case of a building, making changes to its detail, fabric, finish or appearance) of a heritage item.

The subject site is identified as local heritage item No. I45, Hillcrest under Schedule 5 of the CLEP 2015. This application seeks consent for works associated with this item.

Clause 5.10(5) requires the consent authority may, before granting consent to any development on land on which a heritage item is located, 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 or heritage conservation area concerned.

A Heritage Impact Statement was submitted in support of the proposal.

The Heritage Impact Statement prepared fails to adequately assess the heritage significance of the site or provide a satisfactory assessment of the extent of impact caused by the proposed works on the site's heritage significance.

Clause 5.10(6) requires the consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.

No conservation management plan was submitted.

### Clause 7.1 Earthworks

Clause 7.1 requires the consent authority to consider whether the proposed works will not have a detrimental impact on environmental functions and processes, neighbouring land uses, cultural or heritage items or features of the surrounding land.

Substantial earthworks are proposed to facilitate the proposal. Insufficient information has been provided to determine the proposal will not disrupt or have any detrimental effect on, drainage patterns and soil stability in the locality of the proposed development.

### Clause 7.10 Essential Services

Development consent must not be granted to development unless the consent authority is satisfied services that are essential for the development are available or that adequate arrangements have been made to make them available when required.

Insufficient evidence demonstrating the site is capable of being serviced by essential services has been provided by the applicant. It is considered that the applications fails to provide satisfactory evidence demonstrating compliance with this clause.

## 2.7. Campbelltown (Sustainable City) Development Control Plan (SCDCP 2015)

The Campbelltown (Sustainable City) DCP 2015 is categorised into several volumes and parts that relate to specific localities and various developments. Volume 1, Part 2 that relates to development controls for all types of development with Part 3 relating to low and medium density residential development and ancillary residential structures

The following table provides an assessment of the proposal in accordance with the relevant requirements of SCDCP 2015.

Part	Requirement	Proposed	Compliance
<b>2.2 Site Analysis</b>	A Site Analysis Plan shall be lodged with the development application.	A site analysis plan was provided with the development application.	Satisfactory
<b>2.3 Views and Vistas</b>	<p>a) Development shall appropriately respond to Campbelltown's important views and vistas to and from public places and these include views and vistas to and from Heritage items.</p> <p>B) District views and existing significant view corridors as viewed to and from public places shall be protected.</p> <p>c) The opportunity to create new view/ vista corridors shall be taken wherever possible and appropriate.</p>	<p>A view analysis prepared by DWA has been submitted. The view analysis submitted contains images from various locations within and around the site and fails to satisfactory assess views to and from the site and the significance to the heritage item.</p> <p>The proposal fails to demonstrate how district views and existing significant view corridors as viewed to and from the heritage dwelling have</p>	Unsatisfactory

Part	Requirement	Proposed	Compliance
		been protected.	
<b>2.4.1 Rain Water Tanks</b>	In addition to satisfying BASIX, residential development is encouraged to provide a rain water tank for new buildings.	Each dwelling is serviced by a 1,100L individual rain water tank.	Satisfactory
<b>2.4.5 Basix</b>	BASIX Certificate to be provided in accordance with State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.	Compliant BASIX certificate has been provided.	Satisfactory
<b>2.5 Landscaping</b>	a) Landscape design shall enhance the visual character of the development and complement the design/use of spaces within and adjacent to the site.	Landscape plans lack appropriate consideration for the value of the historic cultural landscape of the site and are considered unsympathetic towards the heritage values of the site.	Unsatisfactory. See discussion below
	b) Landscape design shall retain and enhance the existing native flora and fauna characteristics of a site wherever possible.	The application proposes the removal of 78 trees and the retention of 9 trees.  Based on the submitted Arboricultural Impact Appraisal at least 30 AA and A rated mature trees are present on the site and were not identified as containing defects.  The proposed landscape design proposes to retain 9 trees and has not demonstrated how the existing native flora and fauna characteristics will be enhanced.	Unsatisfactory
	c) Landscape design shall add value to the quality and character of the streetscape.	The proposed landscaping strategy lacks appropriate consideration for the value of the historic cultural landscape of the site and is unsympathetic towards the heritage values of the site.	Unsatisfactory
	d) A Landscape Concept Plan is required to be submitted for development applications that propose multi dwelling housing.	A landscape plan has been prepared and submitted with the development application.	Satisfactory
	e) The Landscape Concept Plan	The proposed landscape	Unsatisfactory



<b>Part</b>	<b>Requirement</b>	<b>Proposed</b>	<b>Compliance</b>
	shall illustrate mature height, spread of species, trees to be removed/ retained and shall be prepared by a suitably qualified person.	plan fails to illustrate the mature heights and spread of each plant species proposed.	
	f) Landscaping shall maximise the use of locally indigenous and other drought tolerant native plants and avoid the use of invasive species.	The proposed landscape plan fails to maximise the use of locally indigenous and other drought tolerant native plants.	Unsatisfactory
<b>2.7 Erosion and Sediment Control</b>	a) An Erosion and Sediment Control Plan (ESCP) shall be prepared and submitted with a development application.	Erosion and Sediment Control details are noted on site plans provided with the development application.	Satisfactory
<b>2.8 Cut, Fill and Floor Levels</b>	a) A Cut and Fill Management Plan (CFMP) shall be submitted with a development application where the development incorporates cut and/or fill operations.	Insufficient information relating to the proposed earthworks have been submitted to allow for a proper assessment.	Unsatisfactory
	b) max cut and fill 1m	Proposal includes in excess of 2m cut.  Natural ground levels have not been detailed on all section plans to accurately quantify proposed cut and fill.	Unsatisfactory
	c) Any excavation within the zone of influence of any other structure requires a dilapidation report (prepared by a suitably qualified person) demonstrating that adequate ameliorative measures are to be implemented to protect the integrity of any structure.	A condition of development consent can be applied if the application is supported.	Satisfactory
	d) Development incorporating any cut or fill shall comply with the requirements set out in this part.	Insufficient information relating to the proposed earthworks have been submitted to enable a proper assessment.	Unsatisfactory
	e) All fill shall be 'Virgin Excavated Natural Material' (VENM).	A condition of development consent can be applied if the application is supported.	Satisfactory
	f) No fill shall be deposited in the vicinity of native vegetation.	A condition of development consent can be applied if the	Satisfactory

Part	Requirement	Proposed	Compliance
		application is supported.	
<b>2.9 Demolition</b>	a) A development application involving demolition shall be considered having regard to the information contained in this part.	A condition of development consent can be applied if the application is supported..	Satisfactory
<b>2.10.1 Water Cycle Management</b>	A comprehensive Water Cycle Management Plan (WCMP) shall be prepared and submitted as part of a development application.	A stormwater design and report has been submitted.  Insufficient information has been provided to determine whether the proposed water sensitive urban design is acceptable.	Unsatisfactory
<b>2.10.2 Stormwater</b>	a) All stormwater systems shall be sized to accommodate the 100-year ARI event (refer to Section 4 of Council's Engineering Design Guide for Development available from Council's website at <a href="http://www.campbelltown.nsw.gov.au">www.campbelltown.nsw.gov.au</a> .	A stormwater design and report has been submitted.  Insufficient information has been provided to determine whether the proposed stormwater management system is acceptable.	Unsatisfactory. See discussion below
	b) The design and certification of any stormwater system shall be undertaken by a suitably qualified person.	Proposed stormwater design has been prepared.	Satisfactory
	h) Stormwater collected on a development site shall be disposed of (under gravity) directly to the street or to another Council drainage system/device.	Insufficient information has been provided to determine whether the proposed stormwater management system is acceptable.	Unsatisfactory
	k) Stormwater run-off shall be appropriately channelled into a stormwater drain in accordance with Council's Engineering Design Guide for Development available from Council's website at <a href="http://www.campbelltown.nsw.gov.au">www.campbelltown.nsw.gov.au</a> .	Insufficient information has been provided to determine whether the proposed stormwater management system is acceptable.	Unsatisfactory
<b>2.10.3 Stormwater Drainage</b>	a) A stormwater Drainage Concept Plan shall be prepared by a suitably qualified person, and submitted with all development applications, involving construction (except for internal alterations/fitouts), demonstrating	Insufficient information has been provided to determine whether the proposed stormwater management system is acceptable.	Unsatisfactory. See discussion below

Part	Requirement	Proposed	Compliance
	to Council how the stormwater will be collected and discharged from the site.		
<b>2.11.2 Heritage</b>	<p>a) Any development application made in respect to development on land that is:</p> <p>i) occupied by a heritage item; or</p> <p>ii) adjoining land occupied by a heritage item; or</p> <p>iii) located within a heritage conservation area, shall provide a Statement of Heritage Impact (SHI) that assesses the impact of the proposed development on the heritage significance, visual curtilage and setting of the heritage item or conservation area</p>	<p>The subject site is identified as a local heritage item No. 145 known as 'Hillcrest' and works including demolition is proposed.</p> <p>A Heritage Impact Assessment was submitted with the application.</p> <p>The Heritage Impact Assessment does not adequately address the heritage significance of the place as a whole and is considered to be unsatisfactory.</p>	Unsatisfactory. See discussion below
	b) Any development on land occupied by an item of heritage, or land located within a heritage conservation area shall be designed by a suitably qualified person and have regard to the provisions of any relevant study or Conservation Management Plan (CMP).	<p>It is considered that a heritage Conservation Management Plan is required.</p> <p>A Conservation management plan has not been submitted.</p>	Unsatisfactory
	c) Unless otherwise advised by council, a Conservation Management Plan (CMP) shall be required for all proposed development involving the adaptive reuse of a heritage item, or major alterations and additions.	<p>A heritage Conservation Management Plan is required.</p> <p>A Conservation management plan has not been submitted.</p>	Unsatisfactory
<b>2.12 Retaining Walls</b>	a) Any retaining wall that is not complying or exempt development as specified in the E&CDC shall be designed by a suitably qualified person.	<p>Insufficient information has been submitted to confirm the location, material and heights of proposed retaining walls.</p> <p>The application has inconsistent documentation relating to cut/ fill and retaining walls.</p>	Unsatisfactory

<b>Part</b>	<b>Requirement</b>	<b>Proposed</b>	<b>Compliance</b>
	<p>b) In the case of retaining walls constructed to support proposed fill on an allotment, the following design criteria shall apply:</p> <p>i) No filling shall be permitted within 2 metres of any property boundary unless sufficient details are submitted to Council illustrating how privacy, overshadowing, stormwater management and access issues have been addressed to Council's satisfaction.</p>	Insufficient information has been submitted to confirm the location, material and heights of proposed retaining walls to satisfy this part.	Unsatisfactory
	<p>c) In the case of retaining walls constructed to support proposed cut on an allotment, the following design criteria shall apply:</p> <p>i) The retaining wall shall be setback a minimum of 450mm from the rear and side boundary of the lot containing the cut.</p>	Insufficient information has been submitted to confirm the location, material and heights of proposed retaining walls to satisfy this part.	Unsatisfactory
	f) Any excavation within the zone of influence for any other structure or building requires a Structural Engineering Report (prepared by a suitably qualified professional) demonstrating that adequate and appropriate measures are to be implemented to protect the integrity of any structure.	A condition of development consent can be applied if the application is supported.	Satisfactory
	g) Where retaining walls are proposed along the side boundary of the property, the side setback where the retaining wall is proposed shall be increased from 0.9metres to 1.2 metres.	Insufficient information relating the location and construction of required retaining walls has been provided to satisfy this part.	Unsatisfactory
	h) Any retaining wall requiring work on neighbouring properties shall require the consent of the adjoining owner/s.	Insufficient information relating the location and construction of required retaining walls has been provided to satisfy this part.	Unsatisfactory
	i) Retaining walls higher than 900mm shall be designed by a structural engineer and made from appropriate material.	Civil plans do not identify all required retaining walls higher than 900mm.	Unsatisfactory
<b>2.13 Security</b>	e) CPTED report required for	CPTED report submitted.	Unsatisfactory

<b>Part</b>	<b>Requirement</b>	<b>Proposed</b>	<b>Compliance</b>
	DA's for multi dwelling housing developments.	CPTED report fails to demonstrate the functionally and CPTED principles of the rear access arrangements for units type A, considering the location of proposed drainage swales, topography and distance of travel and lack of pedestrian paths to service these access points.	
<b>2.14.1 Contaminated Land Management</b>	a) The requirements of Managing Land Contamination Planning Guidelines, SEPP 55 – Remediation of Land (EPA, DUAP, 1998) shall be satisfied on sites known to have, or may give Council reason to suspect, a potential for previous contamination.	The application was not accompanied by satisfactory information to allow Council to properly consider the matters prescribed by Clause 7(1) of SEPP 55.	Unsatisfactory
<b>2.14.2 Salinity</b>	Salinity Analysis and Remedial Action Plan shall be prepared and submitted with the development application where the site has been identified as being subject to a salinity hazard.	A condition of consent can be applied if the application is supported.	Satisfactory
<b>2.15.2 Waste Management During Demolition and Construction</b>	Waste management plan (WMP) is required to be submitted in accordance with this control.	A WMP was submitted but is considered to be unsatisfactory.	Unsatisfactory
<b>2.15.3 On-going Waste Management</b>	Waste management plan is required to be submitted in accordance with this control.	A WMP was submitted. The submitted WMP and architectural plans contain insufficient detail to assess the suitability of the proposed waste management strategy in terms of serviceability, access and construction.	Unsatisfactory. See discussion below
<b>2.16 Provision of Services</b>	This section of the DCP details requirements to ensure that development is provided with adequate water and power supply.	Insufficient evidence demonstrating the site is capable of being serviced by essential services has been submitted.	Unsatisfactory
<b>2.16.3 On-Site Wastewater Sewage</b>	All development applications for an onsite wastewater management system or private	The subject site contains an existing septic tank (located in proposed road	Unsatisfactory

Part	Requirement	Proposed	Compliance
<b>Management</b>	recycled water scheme shall be accompanied by a site specific wastewater report for all wastewater facilities located on the premises. The report shall be prepared by a suitably qualified person/company specialising in wastewater and water recycling systems in accordance with Council's Wastewater Management and Water Recycling Strategy 2009	at the intersection of Roads B & C). No details have been provided and the applicant has not advised if this system is to be retained or removed. Insufficient information has been submitted to demonstrate compliance with this part.	
<b>2.17 Work On, Over or Near Public Land</b>	a) Written approval shall be obtained from Council, prior to the commencement of any works, activities or occupancy upon public land, including roads, road related areas, stormwater connections, Council car parks, footpaths or nature strips.	A condition of development consent can be applied if the application is supported.	Satisfactory
<b>2.17.3 Excavation Work Near State Roads</b>	a) Any proposal that includes excavation works adjacent to a State Road shall be accompanied by detailed geotechnical report relating to the proposed excavation of the site and support structures to RMS's satisfaction.	The development application was referred to the RMS for comment. RMS raised no objections, subject to requested condition of development consent.	Satisfactory

The following table provides an assessment against Volume 1, Part 3 low and medium density residential development and ancillary residential structures of the SCDCP 2015.

Part	Requirement	Proposed	Compliance
<b>3.4.1.1 Streetscape</b>	a) Building design (including facade treatment, massing, roof design and entrance features), setbacks and landscaping shall complement the scale of development, and the desired future character of the residential neighbourhoods.	The development is considered inconsistent with the future character and streetscape of Badgally Road.  The proposal presents as a medium density housing development through the provision of attached row, terrace style housing and is unsatisfactory.	Unsatisfactory
	b) Development on corner sites shall incorporate facade treatments that address both street frontages and achieve positive articulation in building design. Landscaping shall	Subject site not located on a corner.	N/A

	be used to reduce the impact of any privacy fencing.		
	c) The built form shall relate to the natural landform and setting.	<p>Cut and fill proposed is in excess of 2m in some locations. Natural ground levels have not been adequately detailed.</p> <p>Due to the extensive cut and fill proposed to facilitate development, the proposed built form does not relate to the natural landform and setting.</p>	Unsatisfactory
	d) On-site parking areas shall be designed and sited to reduce the visual prominence of garage doors and external parking spaces as viewed from the street or other public place.	Proposed onsite parking areas are located centrally within the site and will be screened by dwellings and landscaping from the street.	Satisfactory
	e) Garage doors facing a public street shall not be wider than 50% of the width of the building's facade fronting the street (refer to Figures 3.4.1.1).	Garages doors do not face a public street.	Satisfactory
	f) No carports or garages (or like structures) shall be located within 6 metres of the primary street boundary, for additional requirements of setbacks for the various types of residential development refer to section 3.5,3.6 and 3.7 of this part of the plan.	Garages are located at least 6m from the primary street boundary.	Satisfactory
	g) No bathroom, ensuite, toilet or laundry windows shall face the primary street of an allotment	Complies	Satisfactory
	<p>h) Multi dwellings and dual occupancies shall satisfy the following architectural requirements:</p> <p>i) incorporation of variations in roof heights and wall planes to avoid long unbroken ridge lines</p> <p>ii) incorporation of façade shifts and articulation, varied materials and colours in order to avoid duplication of the same building elements</p> <p>iii) provision of windows and active space in the building ends, to</p>	<p>The development proposes a built form which includes façade treatments that are broken up into four unit types.</p> <p>Whilst the four unit types propose varied roof heights, wall planes and façade treatments as required under this part, the overall built form fails to satisfactorily respond to the heritage significance of the existing dwelling, its</p>	Unsatisfactory

	provide additional security and visual interest	siting, context and its landscaped setting.  Additionally, 60% of the dwellings are identified as Unit 2 and it is considered that the proposal fails to provide individuality and visual interest.  The proposed built form comprises of a range of duplicated materials and finishes that are repeated across all unit types. The proposal is inconsistent with this control.	
	i) All windows facing the street (primary and secondary) must have a balanced architectural design.	Proposed window siting are architecturally balanced.	Satisfactory
<b>3.4.1.2 Building Height</b>	a) The height of development shall not result in any significant loss of amenity (including loss of solar access and visual and acoustic privacy) to adjacent properties and public places.	Due to the orientation and topography of the site, the proposal will not result in any significant loss of solar access to adjacent properties and public places as a result of the proposed building height.	Satisfactory
<b>3.4.1.3 Advertising Material</b>	a) As part of the letter box design for multi dwelling housing a special container shall be provided for the placement of advertising and newspaper materials.	Insufficient information has been provided detailing the location of proposed letter box.	Unsatisfactory
<b>3.4.2 Car Parking and Access</b>	a) The minimum external dimensions of any required parking space shall be 2.5m x 5.5m.	A condition of consent can be applied if the application is supported.	Satisfactory
	b) The minimum internal dimension of an enclosed garage shall be 3m x 6m.	Achieved.	Satisfactory
	c) Transitional grades shall comply with AS 2890.1 (as amended) Parking Facilities - Off-Street Car Parking.	Driveway gradients required by AS2890.1 cannot be achieved for some dwellings due to the proposed kerb type, road and garage levels.  Cross sections proposed for Road A show excessive cross fall which is not acceptable.	Unsatisfactory
	d) The maximum garage floor levels (above or below) for a garage setback six metres from the front property boundary shall be in accordance with the requirements	A condition of consent can be applied if the application is supported.	Satisfactory



	contained under Council's Engineering Guide for Development, (Appendix K - Standard Drawings No. SD-R08 and SDR09), which is available at Council's website at www.campbeltown.nsw.gov.au.		
	e) Driveways greater than 30 metres in length as viewed from the street shall be avoided.	Private road network proposed. Private road along the sites southern boundary will be largely screened by concrete overpass from M5.	Satisfactory
	g) The minimum width of the driveway at the street kerb shall be:  i) 2.5 metres where the driveway provides access for one dwelling; and ii) five metres where a single driveway provides access for two or more dwellings (excluding secondary dwellings).	The proposal contains conflicting information relating to access road widths (architectural plans and the traffic and parking assessment report rev B).  Access road widths have not demonstrated compliance with the requirements given in AS 2890.1 with regard to the road category and the proposed number of car spaces.	Unsatisfactory
	k) Internal driveways and vehicle access shall be provided with sufficient widths to ensure easy access to and from designated car parking areas/garages.	The proposal contains conflicting information relating to access road widths (architectural plans and the traffic and parking assessment report, Rev B).  Access road widths have not demonstrated compliance with the requirements given in AS 2890.1 with regard to the road category and the proposed number of car spaces.	Unsatisfactory
	l) Internal driveways for multi dwellings shall be designed to provide two-way vehicle access	Internal access road widths have not demonstrated compliance with the requirements given in AS 2890.1 with regard to the road category and the proposed number of car spaces.	Unsatisfactory
<b>3.4.3.1 Acoustic Privacy</b>	a) Development that adjoins significant noise sources, (such as main roads, commercial/industrial development, public transport interchanges and railways) shall be designed to achieve acceptable internal noise levels, based on	An acoustic report was submitted with the development application. The proposed building construction recommendations contained within the	Unsatisfactory. See discussion below

	recognised Australian Standards and any criteria and standards regulated by a relevant State Government Authority.	submitted assessment have not adequately demonstrated that appropriate measures will be taken to ensure that the LAeq levels required under Clause 102 of the ISEPP will not be exceeded for all of the proposed dwellings including the heritage dwellings.	
	b) Development shall incorporate noise attenuation measures that are compatible with the scale, form and character of the street.	Insufficient information has been provided to confirm acoustic compliance for the heritage buildings to satisfy this part.	Unsatisfactory
	c) On-site noise generating sources including, but not limited to, plant rooms and equipment, air conditioning units, pool pumps, and recreation areas shall be designed and located to ensure that the noise levels generated by such facilities do not exceed 5 dBA above background levels at the property boundary.	Proposed air conditioning units as nominated in submitted BASIX certificate are not reflected on submitted plans to confirm compliance with this part.  The submitted acoustic report has not provided an assessment on ventilation requirements.	Unsatisfactory
	d) Multi dwelling housing and attached dwellings near railway corridors and major roads shall demonstrate to Council's satisfaction compliance with the requirements under the Guidelines entitled Development Near Rail Corridors and Busy Roads – Interim Guideline, 2008).	The submitted acoustic report has not demonstrated the proposal will be adequately protected from noise impacts from Badgally Road and Hume Motorway (M5) in accordance with the Guidelines entitled Development Near Rail Corridors and Busy Roads – Interim Guideline, 2008).	Unsatisfactory
<b>3.4.3.2 Visual Privacy</b>	a) No window of a habitable room or balcony shall directly face a window of another habitable room, balcony or private open space of another dwelling located within 6 metres of the proposed window or balcony unless appropriately screened (refer to Figure 3.4.3.1).	Attached and row housing is proposed. Unit types 2, 3 and 4 propose balconies to the rear of the first floor and bedroom windows that will overlook adjoining dwellings private open spaces.  The applicant has advised privacy screens will be provided, however no detail of these screen measures have been submitted for assessment.	Unsatisfactory
	b) Notwithstanding Clause 3.4.3.2a) any window of a living room located on an upper level shall: i) be offset by two metres to limit	Attached and row housing proposed with no windows proposed alongside elevations. Skylight	Satisfactory

	views between windows and balconies; or ii) have a sill height 1.7 metres above the floor level; or iii) be splayed to avoid direct views between windows; or iv) have fixed translucent glazing in any part of the window within 1.7 metres of the floor level	windows proposed to bedrooms to satisfy lighting requirements.	
	c) Notwithstanding 3.4.3.2a), a balcony will be considered where the private open space area of any adjacent dwelling is screened from view.	Attached and row housing is proposed. Unit types 2 and 3 propose balconies to the rear of the first floors and bedroom windows which will overlook adjoining dwellings private open spaces.  The applicant has advised privacy screens will be provided, however no detail of these screen measures have been submitted for assessment.	Unsatisfactory
	d) No wall of a proposed building shall be permitted to be constructed on the boundary for that portion of the boundary that is directly adjacent to an existing required private open space area on the adjoining allotment.	Attached row housing proposed, private open space areas are located at the rear of the dwellings.	Satisfactory
<b>3.4.4 Solar Access</b>	a) Living areas shall generally have a northerly orientation.	Living areas for each dwelling generally have a northerly orientation.	Satisfactory
	b) A minimum 20sqm fixed area of the required private open space shall receive three hours of continuous direct solar access on 21 June, between 9.00am and 3.00pm, when measured at ground level.	Six (Unit C05, C06, C07, C08, C09 and D4) of the 75 dwellings will not receive three hours of continuous direct solar access on 21 June, between 9.00am and 3.00pm. All dwellings are required to achieve compliance with this part.	Unsatisfactory
	c) Development shall have appropriate regard to the impact on solar access to useable private open space and living areas, solar collectors and clothes drying areas of adjoining residential development.	Despite not all dwellings achieving solar compliance in accordance with part 3.4.4(b), solar access into POS area is generally achieved.	Satisfactory

<p><b>3.5.1 Fencing</b></p>	<p>a) Bonded sheet metal fencing shall not be constructed at any location other than alongside and rear boundaries shared with other private property, where such fencing is not highly visible from the street, public reserve or other public place, unless the site is within a bushfire prone area.</p>	<p>Fencing styles proposed comprise of:</p> <ul style="list-style-type: none"> <li>- 1.8m (high) lapped and capped fencing around the perimeter of dwellings;</li> <li>- 1.1m (high) rural style timber fence to parts of the sites northern boundary, the side southern boundary, the front western boundary and surrounding frontage of the heritage stable dwelling; and</li> <li>- 0.9m (high) timber picket fence surrounding frontage of the heritage dwelling.</li> </ul> <p>Subject site is not within a bushfire prone area and no bonded sheet metal fencing is proposed.</p>	<p>Satisfactory</p>
	<p>b) Residential fencing along the rear and side boundaries shall be:</p> <ul style="list-style-type: none"> <li>i) located behind the primary street building line;</li> <li>ii) a maximum 2.1 metres in height (excluding retaining walls); and</li> <li>iii) a maximum 1.8 metres in height, if adjoining a secondary street.</li> </ul>	<p>Complies.</p>	<p>Satisfactory</p>
	<p>c) Front residential fencing shall be a maximum of 1.2m in height and complement the design of the development.</p>	<p>Proposed fencing as detailed on architectural plans is inconsistent with the recommendations made in Traffic Noise Intrusion Assessment report.</p> <p>The acoustic report requires a front fence to be erected to a minimum height of 1.2m above the ground level of the units fronting Badgally Road. The acoustic fence is required to be constructed from impervious material without holes or gaps.</p> <p>A 1.1m (high) rural style timber fence with large gaps is proposed to the sites frontage to Badgally Road.</p>	<p>Unsatisfactory</p>
	<p>e) Fencing shall not obstruct power, water, sewer, gas or telephone</p>	<p>A condition of consent can be applied if the application</p>	<p>Satisfactory</p>

	services, drainage systems, (including overland flow paths) or any easements or rights of way.	is supported.	
	f) Details for fencing shall be submitted with the development application.	Insufficient fencing and retaining wall details have been provided to assess the development application. Fencing and retaining wall details for earthworks and levels for the dwellings fronting Badgally Road have not been submitted.	Unsatisfactory
<b>3.6 Low Density Residential Development - Zones R2, R3, R4 &amp; R5</b>			
<b>3.6.6.1 General Requirements for Multi Dwelling Housing Zone R2</b>	a) A minimum of 10% of the total number of dwellings within a multi dwelling housing development containing 10 or more dwellings shall be adaptable dwelling(s).	Minimum 8 dwellings are required to be adaptable. 12 adaptable units proposed. Units D, Type 1 are nominated as adaptable.	Satisfactory
	c) Subject to the satisfaction of other requirements within the Plan, the number of dwellings permitted within a multi dwelling housing development shall not exceed:  i) 2 dwellings for the first 700sqm of land area; and  ii) 1 dwelling for each 300sqm of land area thereafter.	The subject site has an area of 2.343ha with a portion of the site zoned SP2 (Road)(approximately 1080sqm).  The area zoned SP2 (road) is excluded from the calculations.  The remaining site area equates to 2.235Ha and the number of dwellings permitted shall not exceed 74.  75 dwellings proposed.  Despite a maximum of 74 dwellings permitted under this part, this number is subject to the satisfaction of other requirements within the Plan.	Unsatisfactory
	e) Multi dwelling housing shall only be permitted on a site:  i) having a minimum width of 22.5 metres measured along the side boundaries at a distance of 5.5 metres from the primary street boundary;	Subject site has a frontage of 84.735m.	Satisfactory

	f) Multi dwelling housing units require 'incidentals' storage facility within each dwelling at a rate of 10m <sup>3</sup> in case of a three bedroom dwelling or more.	Each dwelling contains satisfactory storage areas.	Satisfactory
<b>3.6.6.2 Setbacks for Multi Dwelling Housing - Zone R2</b>	<p>a) A multi dwelling housing development shall be set back a minimum of:</p> <p>i) 5.5 metres from the primary street boundary;</p> <p>ii) three metres from the secondary street boundary;</p> <p>iii) 0.9 metres from any side boundary for the ground level;</p> <p>iv) 1.5 metres from any side boundary for all levels above the ground level;</p> <p>v) five metres from the rear boundary for the ground level; and</p> <p>vi) 10 metres from the rear boundary for all levels above ground level.</p>	<p>5.5m achieved from road widening line.</p> <p>Subject site not a corner allotment.</p> <p>Insufficient information relating to retaining walls have been submitted to assess minimum required side setbacks in accordance with Part 2.12 Retaining Walls (g) which requires, where retaining walls are proposed along the side boundary of the property, the side setback where the retaining wall is proposed shall be increased from 0.9m to 1.2 m.</p> <p>Complies.</p> <p>Complies.</p>	Unsatisfactory in regards to retaining walls
	b) Notwithstanding 3.6.6.2.a) i) & ii), any garage shall be setback a minimum of 6m from any street boundary.	Proposed garages do not front primary street.	Satisfactory
<b>3.6.6.3 The Size of Indoor Living Areas for Multi Dwelling Housing - Zone R2</b>	<p>a) The indoor living areas (i.e. family room and lounges) within a dwelling (that forms part of a multi dwelling housing development) shall have a minimum of one unfragmented area that is not less than:</p> <p>ii) (3.5x4)sqm in case of a dwelling with two or three bedrooms;</p>	<p>Each dwelling contains 3 bedrooms and requires a living area to achieve an un-fragmented area of 3.5 x 4m.</p> <p>Proposed dwellings indoor living areas are satisfactory.</p>	Satisfactory
<b>3.6.6.4 Rear Access for Multi Dwelling Housing -</b>	a) Where there is no access to a rear lane or rear street directly available from the back of attached dwellings, each dwelling shall be provided with a separate and direct	Access gates are proposed to rear boundary fences to Unit type A (dwellings fronting southern boundary) to satisfy this	Unsatisfactory

<b>Zone R2</b>	access from the backyard to the front yard that does not pass through any habitable area of dwelling (Refer to Figure 3.6.5.1 for a suggested design solution).	<p>part.</p> <p>Rear access gates open directly to communal open space area and no pedestrian paths are proposed to service this access route.</p> <p>The proposal has failed to demonstrate the functionally and CPTED principles of these rear access arrangements for unit type A, considering the location of proposed drainage swales, topography and distance of travel and lack of pedestrian paths to service these access points.</p> <p>Additionally, rear access to unit B11 and 10 has not been achieved.</p>	
	b) For the purpose of 3.6.6.4 a) above, the direct access from the rear to the front of the dwelling shall have a minimum width of 0.9 metres and shall not be obstructed by hot water systems, air conditioning units, gardens or anything that results in the obstruction of the access way.	Location of proposed hot water systems and air conditioning units have not been provided to confirm unobstructed access can be achieved.	Unsatisfactory
<b>3.6.6.5 Car Parking Requirements for Multi Dwelling Housing - Zone R2</b>	a) Each multi dwelling housing unit shall be provided with a minimum of one single garage.	<p>Single garages are proposed to service proposed dwellings and barn/stable conversion.</p> <p>One car space located within the communal parking area along the sites northern boundary is proposed to be dedicated for the heritage dwelling.</p> <p>One single garage is required to be provided for each dwelling. It has not been demonstrated how the dedication of this car space within the common parking area will be managed/ reserved.</p>	Unsatisfactory
	b) One external additional visitor car parking space shall be provided for every two units (or part thereof), unless all dwellings within the development have direct frontage to	37 visitor car spaces including one accessible and shared space proposed.	Unsatisfactory

	a public street.	75 multi dwellings proposed requires 38 (37.5) visitor car spaces.	
	c) No visitor car parking space shall be located forward of the primary or secondary street boundary.	Visitor car spaces are located behind the primary street boundary.	Satisfactory
	d) No visitor car parking space shall be in a stacked configuration.	No stacked visitor car spaces proposed.	Satisfactory
<b>3.6.6.6 Private and Communal Open Space for Multi Dwelling Housing - Zone R2</b>	<p>a) Each multi dwelling housing unit shall be provided with an area or areas of private open space that:</p> <p>i) are not located within the primary street setback;</p> <p>ii) have a minimum area of 60 sqm,</p> <p>iii) have a minimum width of three metres;</p> <p>iv) include a minimum levelled area of (5x5) sqm;</p> <p>v) have an internal living room directly accessible to the outdoor private open space areas; and</p> <p>vi) satisfy solar access requirements contained in section 3.4.4.</p>	<p>POS areas are located to the rear of each dwelling. Despite the proposed POS area for the heritage dwelling located behind the primary street setback, the proposed POS area is only protected by a part 0.9m high timber picket fence and part 1.8m high lapped and capped fence. Proposed POS area will be exposed to the adjoining communal space and it has not been demonstrated how privacy to this area will be achieved.</p> <p>Each dwelling contains an area of at least 60sqm.</p> <p>Achieves a minimum width of 3m.</p> <p>Each dwelling contains a levelled area of 5x5m in the form of deck or grassed areas.</p> <p>POS accessed from internal living room.</p> <p>Six of the 75 dwellings (UC05, C06, C07, C08, C09 and D4) will not receive three hours of continuous direct solar access on 21 June, between 9.00am and 3.00pm. All dwellings are required to receive solar access in accordance with Part 3.4.4 of Volume 1 of</p>	Unsatisfactory





	<p>b) Multi dwelling housing shall satisfy the following architectural requirements:</p> <p>i) a distinctive architectural outcome that unifies the range of building elements and diversity within the development and which also harmonises with surrounding development;</p> <p>ii) incorporation of variations in roof heights and wall planes to avoid long unbroken ridge lines;</p> <p>iii) incorporation of facade shifts and articulation, varied materials and colours in order to avoid duplication of the same building elements; and</p> <p>iv) provision of windows and active spaces in the building ends, to provide additional security and visual interest.</p>	<p>The overall built form fails to satisfactorily respond to the heritage significance of the dwelling, its siting, context and its landscaped setting.</p> <p>60% of the dwellings are identified as Unit type 2 and fail to provide individuality and visual interest. It is considered the proposal fails to provide a positive contribution to the streetscape.</p>	Unsatisfactory
	<p>d) Unless Council can be satisfied that an existing dwelling located on the site makes a positive contribution to the character of the streetscape, that dwelling shall be demolished.</p>	<p>Existing dwelling on site is identified as a local heritage item and is proposed to be retained.</p>	Satisfactory
	<p>e) Where a development involves the construction of additional dwellings to create multi dwelling housing, the existing dwelling (where it is proposed to be retained) shall be renovated to match the colour, material, texture and architectural style of the proposed buildings so as to create a harmonious development.</p>	<p>Existing dwelling house on site is identified as a local heritage item and is proposed to be retained.</p> <p>Submitted heritage impact assessment has not provided an assessment on how the impact of the proposed built form will impact the heritage item.</p>	Unsatisfactory
<p><b>3.6.6.8 Landscaping and Deep Soil Planting for Multi Dwelling Housing - Zone R2</b></p>	<p>a) Multi dwelling housing shall satisfy the following requirements relating to landscaping:</p> <p>i) a detailed landscape design plan shall be submitted by a suitably qualified person with the development application;</p>	<p>Landscape plan prepared by Taylor Brammer has been submitted with the development application.</p> <p>The submitted landscape plan fails to detail the full extent of works proposed and does not correlate to levels as denoted on revised architectural plans.</p>	Unsatisfactory

	<p>ii) no more than 30% of the area forward of any building line shall be surfaced with impervious materials; and</p> <p>iii) a minimum of 20% of the total site area shall be available for deep soil planting.</p>	<p>The proposal has not demonstrated how compliance with this part has been achieved.</p> <p>The proposed landscape plans denote areas allocated for deep soil planting. Areas nominated as deep soil planting are located within areas allocated for footpaths, drainage swales and are less than 1.5m in width and is unsatisfactory.</p>	
<b>3.6.6.9 Multi Dwelling Housing and Waste Management - Zone R2</b>	<p>a) Multi dwelling housing development shall make provision for individual waste storage for each dwelling, allocated behind the primary and secondary building lines and out of public view, for the following:</p> <p>i) a 140 litre bin; and ii) two 240 litre bins.</p>	<p>Each dwelling is entitled to a three bin system and the proposal requires:</p> <p>75 x 140L Garbage 75 x 240L Recyclables 75 x 240L Organics</p> <p>Communal waste storage areas are proposed behind the primary building line and to be serviced via a private waste contractor service.</p> <p>The proposed number of bins to service the number of dwellings does not comply with Council's requirements. Insufficient information relating to the specific details of these waste storage area has been submitted.</p>	Unsatisfactory. See discussion below
<b>3.6.6.10 Site Services for Multi Dwelling Housing - Zone R2</b>	<p>a) The location, design and construction of utility services shall satisfy the requirements of the relevant servicing authority and Council.</p> <p>b) Adequate provision shall be made available for all essential services (i.e. water, sewerage, electricity, gas, telephone, internet and stormwater drainage).</p> <p>c) All site services shall be placed underground.</p>	Insufficient evidence demonstrating the site is capable of being serviced by essential services has been provided.	Unsatisfactory
<b>3.8.1 General Requirements for</b>	a) Subdivision shall have appropriate regard to orientation, slope, aspect and solar access.	Subdivision is not proposed in this application. The applicant has advised strata	Not applicable

<b>Subdivision.</b>		subdivision will be proposed at a later date.	
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## 2.8. Developer Contributions

Section 7.11 development contributions are applicable to the proposed development. Should the application be approved, a condition of development consent can be applied.

## 3. Planning Assessment

### 3.1. Impacts on the natural and built environment

Section 4.15(1)(b) of the EP&A Act requires the consent authority to assess the development's potential impacts on the natural and built environment.

The key matters for consideration when considering the development's potential impact on the natural and built environment are as follows:

- Heritage
- Character and streetscape
- Stormwater
- Waste
- Construction
- Built form
- Access
- Traffic
- Tree removal

#### Heritage

The development application was peer reviewed by an external heritage consultant, and referred to Council's heritage planner for review and comment. The response received discussed the following:

- Legislative context
- Heritage assessment process
- Assessment of significance
- Analysis of the site
- Impacts of the proposed development on heritage significance.

#### Legislative context

The subject site is identified under Schedule 5 of the CLEP 2015 as a local heritage item No. I45, Hillcrest.

#### Clause 5.10 Heritage conservation of the CLEP 2015

The objectives of Clause 5.10 of the CLEP 2015 are as follows:

- (a) To conserve the environmental heritage of Campbelltown;
- (b) To conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views;

- (c) To conserve archaeological sites; and
- (d) To conserve Aboriginal objects and Aboriginal places of heritage significance.

The proposal fails to uphold the second objective of this clause which requires development to conserve the heritage significance of heritage items including associated fabric, settings and views.

Clause 5.10 (6) of the CLEP 2015 states the consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.

Based on the heritage impact statement submitted and site inspection, a Conservation Management Plan (CMP) was required. A CMP was not submitted, instead a revised heritage impact statement was provided. It is considered that this is insufficient and a CMP is required.

### **Zoning**

The subject site is zoned R2 Low Density Residential under the CLEP 2015 and multi dwellings are currently a permissible land use within the R2 zone. Despite zoning and associated controls prescribed under the CLEP 2015, the subject site contains a local heritage item that requires careful consideration to the heritage provisions listed under Clause 5.10.

Any development on a heritage site ultimately requires a balancing exercise and the density of development possible, and shall be a result of ensuring heritage values being protected. Despite the proposed land use being a permissible form of development within the land use zone, the proposal as submitted, has adverse impacts on the heritage values of the place and is inconsistent with the first objective of the R2 zone.

### **Heritage Assessment Process**

The external heritage consultant and Council's heritage planner conclude the accepted process when assessing heritage sites (as documented in the Burra Charter), should be carried out (at a minimum) in the following manner:

- Prepare a detailed history of the place
- Undertake physical analysis of the place
- Compare it to other similar places to understand where it fits into an understanding of heritage value
- Prepare a detailed assessment of significance.

Development (if any) is to be subservient to the heritage values of the item and not overwhelm or obscure those values. The proposal has not adopted the above process resulting in a proposed development that completely detracts from the significance of the heritage item that is not subservient to the heritage values of the site.

Heritage sites require a clear and accurate assessment of heritage values. Assessments are to clearly establish the setting and/or curtilage that is necessary to protect and enhance heritage values of the site. The submitted assessment fails to provide a heritage analysis that is sufficient to understand the place, not just the house, and then establish an approach to potential development.

The proposal does not reflect an appropriate or well considered understanding of the significance of the heritage item and the process required to assess the item's significance.

The assessment also fails to identify and retain a significant curtilage, does not provide an assessment of the works proposed to the barn/stables, and inadequately considers the extent to which the carrying out of the proposed development would affect the heritage significance of the site.

### **Assessment of Significance**

Insufficient information has been submitted by the applicant to understand the full extent of the heritage significance of the site.

Council's heritage consultant provided commentary on the significance of the site based on the applicant's submitted documentation and a site inspection carried out in April 2019. The following is a summary of those comments:

- The site contains a number of items which are legible and add significance to the heritage values of the site/place and these include the house, barn/stable, driveway, remnant garden setting and plantings, and remnant rural setting.
- The current condition of the site does not affect or impede the heritage significance.
- Although reduced in size, the land holding retains much of the early site layout and arrangement along its western edge.
- The site adjoins the local heritage item known as Glenroy Cottage No. 144 under schedule 5 of the CLEP 2015. The western boundary between the properties provides for a visual relationship between the two houses and properties. Critical consideration the potential impact of the proposed development, on the heritage values of the adjacent heritage item has not been explored. Part of the combined and more significant heritage value of the site is the open rural character and views over the landscape that remains.
- From the adjoining site, the subject site provides a continuity of landscape form that is overviewed and retains the open character of the landscape that has been experienced from Badgally Road since the surrounding properties were developed. This is a rare attribute, that is critical to the heritage values of (both) the properties.
- The layout of the site, the house siting, the driveway arrangement and the garden layout (before it was overgrown) are intentional and designed to capture the views and aspect from the site. These aspects form key parts of the heritage significance of the property.
- The design of the driveway is intentional, which allows for a visitor to enter the property from Badgally Road, cross a small depression that is filled and rises evenly through a tree lined drive to the top of the rise. The use of the entry drive and carriage loop to create an approach to the house and show-off views to the township are clearly evident and remains on site. The driveway form, the views and the experience of arrival and departure are key attributes of the significance of the property.

- The fenced garden area is clearly of high significance. The retention of a rural garden setting is rare in Campbelltown. This is one of the remnant rural properties that retains a defined and partially extant garden setting. Most have disappeared or the context of the buildings has been altered so that their understanding of garden, rural setting and contextual setting have been obscured.
- The site is also rare. It is one of the only rural houses from the mid-nineteenth century on the fringes of Campbelltown to remain with a setting. There are a number of earlier colonial houses remaining, several with discernible gardens. There are a number of later rural properties (1880s-early 1900's) some of which retain garden settings, but most have lost their garden forms and have later plantings, and layouts or gardens have been removed.
- It is probable that Hillcrest has one of the most intact garden forms of an early to mid-nineteenth century house in the Campbelltown area.
- Any impact on the setting (from development) would have a major impact on the heritage values of the place and its setting in relation to the adjoining property and Badgally Road.

### **Impacts of the proposed development on the heritage significance**

Council's heritage consultant and supported by Council's heritage planner noted that without a thorough understanding of the form, detail and rarity of the landscape setting in combination with careful mapping of heritage values, vistas, views, aspect, outlook and relationship of the place to the adjoining property and the township of Campbelltown, it is difficult to determine where (and if) development may take place at all on the site.

The application does not demonstrate that the proposal can be developed without having a significant and detrimental impact on its heritage values.

Further the applicant's Heritage Impact Statement fails to define an appropriate curtilage. The proposal reflects a substantially reduced heritage curtilage to the dwelling alone.

The High Court of Australia defined curtilage as:

Any building, whether it is a habitation or has some other use, may stand within a larger area of land which subserves the purposes of the building. The land surrounds the building because it actually or supposedly contributes to the enjoyment of the building or fulfilment of its purpose.

Royal Sydney Golf Club v Federal Commissioner of Taxation (cth) (1955) 91 CLR 610 at 626.

Heritage curtilage is defined in the Heritage Office's Heritage curtilages as the area of land (including land covered by water) surrounding an item or area of heritage significance which is essential for retaining and interpreting its heritage significance.

The proposed development would have a detrimental impact on the heritage significance of the site as a whole. The proposal, in its current setting and location, would result (in fact) in a subdivision of the land sited between the proposed development and dwelling, despite subdivision not being proposed under this application.

A cursory glance at the proposed site plan indicates a landlocked (or development locked) heritage item, which is subservient to the proposal. The spaciousness and openness of the grounds and the relationships of the parts, which contribute to an understanding of the significance have been truncated to maximize the size of the development.

Council's heritage consultants consider the proposed development would abolish the historic spatial relationship to the surrounding defined and partially extant garden setting and intentional driveway connection. The development would obscure the views that are available from the top of the entry drive to the township of Campbelltown.

It is recommended to the Campbelltown Local Planning Panel that the subject development application is not supported, fundamentally on the significant and adverse impacts to the heritage item (the site). The proposal constitutes a gross overdevelopment that is unsympathetic to the context and character of the heritage item.

The proposal demonstrates that the heritage values of the site would be destroyed in some respects and diminished in others. The proposal fails to satisfy the heritage provisions of the Clause 5.10 of the CLEP 2015 and requirements listed in Volume 1, Part 2.11.2 of Council's DCP and puts at risk the retention and protection of important items of heritage in the Campbelltown area.

### **Character and Streetscape**

The development application fails to consider the compatibility of the proposed built form to the heritage significance of the site, its context and with the character of the surrounding urban environment.

In *Project Venture Developments v Pittwater Council* [2005] NSWLEC 191 the Planning Principle of compatibility in the urban environment is discussed. Factors of consideration discussed notes:

The most important contributor to urban character is the relationship of built form to surrounding space, a relationship that is created by building height, setbacks and landscaping.

Surrounding development to the subject site comprises of local heritage item Glenroy Cottage to the northwest, which sits on a large undeveloped landholding and is zoned Part RE1 Public Recreation and Part SP2 Road under the provisions of the CLEP 2015.

Glenroy Park which sits to the northeast of the site, is located within the Claymore Urban Renewal Precinct and is zoned R2 under the provisions of the CLEP 2015. Future development at Glenroy Park will comprise of low density residential development.

Development to the south of the site comprises of a portion of the Hume Motorway (M5) with development located to the west of the site comprising of Thomas Burke Reserve which is zoned RE1 Public Recreation under the provisions of the CLEP 2015.

The proposal has failed to consider the relationship to the context of the existing surrounding allotments and the envisaged future desired character of the area.

The proposal presents as a medium density multi dwelling housing development that includes attached row, terrace style housing, is uncharacteristic of the future desired



character of the area and is contrary to the first objective of the R2 Low Density Residential zone.

In terms of streetscape, the proposal includes a series of dwellings which directly front Badgally Road. Existing residential development along Badgally road is orientated away from Badgally Road and the proposal would be the only residential allotment directly fronting this Road. Despite the proposal complying with the minimum required front setback of 5.5m of Council's DCP 2015, the orientation of these dwellings and minimal front setback proposed is uncharacteristic of the streetscape reflected along Badgally Road.

### **Stormwater and Water Quality**

The revised documentation was reviewed by Council's engineers who advised a number of items have not been addressed. A summary of the concerns is provided below:

- Insufficient DRAINS modeling has been provided
- DRAINS modeling submitted is inconsistent with Council's calculations and measurements
- Incorrect pipe levels have been adopted, despite Council's previous advice to the applicant.
- Insufficient storm water measures have been proposed, that would result with overland flow draining into adjoining properties. Development shall require all flows to be captured and properly managed on site.
- Inconsistency across documentation.
- Unsafe flow paths.
- Unacceptable locations of water quality devices in terms of serviceability, management and access.
- Insufficient information relating to the plan of operation and maintenance.

### **Access, Traffic and Parking**

The revised documentation was reviewed by Council's engineers who advised a number of items have not been addressed. A summary of their concerns is provided below:

- Traffic and Parking Assessment report, Revision B, dated July 2019 contains outdated (2011) forecast traffic flows for Badgally Road. Council's forecast traffic flows for Badgally Road travelling south bound have doubled in AM peak and tripled in PM peak times. Updated traffic figures must be utilised
- Concerns that residents of the proposal will not be able to exit the site safely in peak times
- Inconsistency across documentation

- The proposed internal road network is too narrow for the scale of the development. The proposed width of access road does not comply with the requirements of AS 2890.1 (as amended) with regard to the road category and the proposed number of car spaces
- Insufficient information has been provided for the proposed deceleration lane within Badgally Road
- Swept path diagrams submitted show conflicts and do not detail requirements of AS 2890.1 (as amended). Required details include chassis/body line, wheel line and clearance line of the largest vehicle and vehicle type, speed and legend
- Insufficient road widths and design proposed to effectively manage service vehicles such as waste collection
- Inadequate assessment provided to elevate Council's concerns of queuing during AM peak for vehicles existing the site. The revised assessment is silent on the impacts of the future road widening along Badgally Road, which is certain and imminent.
- Insufficient information relating to the existing septic system has been submitted.
- Driveway gradients as required by AS 2890.1 (as amended) cannot be achieved to some dwellings due to the proposed kerb type, road and garage levels.

### **Waste**

The development application was referred to Council's Waste Services team for review. The response identified the following concerns:

- Operational Waste Management Plan, Rev B, dated December 2018, incorrectly calculates the minimum required waste area based on dimensions provided within the report and the number of bins required to service the development in accordance with Volume 1, Part 3.6.6.9 Multi Dwelling Housing and Waste Management - Zone R2 of Council's DCP 2015
- Inconsistency across documentation. Number of bins as calculated in waste management report equates to 30 bins whereas, plans show 23 bins
- Swept paths provided at Appendix B of the Traffic and Parking Impact Assessment do not sufficiently demonstrate safe and adequate access for heavy rigid collection vehicles (10.4m length 5.5m wheelbase, 23 tonnes GVM)
- Insufficient information and details have been provided on the plans to assess the suitability of the proposed communal bin storage areas, in terms of construction and ability to accommodate the required number of bins
- Impractical location for communal waste storage areas in terms of site gradients and travel distances to dwellings.

The use of communal bin storage areas results in lower levels of amenity and resource recovery and this response is not supported.

### **Landscaping and Tree removal**

The application proposes the removal of seventy-eight trees, the retention of nine trees and contains a small strip of vegetation that contains remnant Cumberland Shale Hills Woodland Trees that forms a component of the critically endangered Cumberland Plain Woodland (CPW).

The development application was referred to Council's Open Space Planning and Design officer and Council's senior environmental officer for review and comment. The response identified the following concerns:

- The proposal fails to appropriately consider the value of the historic cultural landscape of the site. The existing tree-lined entry driveway, layers of existing trees, shrubs and groundcovers, the existing geometry and topography, view corridors, landscape character and setting, scale and spatial relationships are important components of the cultural landscape that have not been satisfactorily addressed.
- The proposal is unsympathetic towards the heritage value of the site and fails to consider the significance of the cultural landscape of the site.
- The Statement of Heritage Impact report dated December 2018 recommends a landscape plan be implemented that identifies management options for the significant vegetation. The proposal fails to identify the 'significant vegetation' or provide the suitable management options required.
- The significance of the site's cultural landscape is further supported by the Arboricultural Impact Appraisal and method statement prepared by Naturally Trees, Rev A, dated July 2019 that rates 30 of the 87 trees on site as having high significance and do not contain defects.
- The development proposes to retain only 30 percent of the trees identified as having high significance and is contrary to Volume 1, Part 11 of Council's DCP 2015 that requires mature trees to be retained.
- Flora and Fauna Assessment dated February 2019 identifies a small strip of vegetation on site contains remnant Cumberland Shale Hills Woodland Trees, and these trees should be prioritised for retention.
- Details relating to trees identified to be removed and retaining wall are inconsistent across documentation.

### **3.2. Social, economic and environmental impacts**

Section 4.15(1)(b) of the EP&A Act requires the consent authority to assess the likely impacts of the development, including social and economic impacts in the locality.

The key matters for consideration when considering the development's potential impact with regard to the social and economic impacts are as follows:

#### **Noise**

The development application was referred to Council's environmental health officer to review and comment. The response identified the following concerns:

- The submitted Traffic Noise Intrusion Assessment dated July 2019 has not adequately demonstrated that appropriate measures will be taken to ensure that the LAeq levels required under Clause 102 of the ISEPP 2007 will not be exceeded for all proposed dwellings and also the heritage dwellings.
- The assessment identified dwellings closest to the motorway will exceed trigger levels and require the use of mechanical ventilation to achieve compliance. The assessment notes mechanical ventilation requirements will be confirmed once the development is complete, with further testing to be conducted to determine this. Mechanical ventilations requirements in order to satisfy compliant trigger levels must be investigated and designed and those requirements shall be submitted for consideration.
- Inconsistency across documentation. Proposed fencing as nominated on plans is inconsistent with the recommendations made in Traffic Noise Intrusion Assessment report.
- The assessment fails to assess noise implications from ongoing traffic noise sources from Badgally Road.
- Proposed testing conducted is insufficient and does not meet the standard requirements for Testing and Compliance Reporting as outlined in Appendix D in the NSW Government Department of Planning - Development near Rail Corridors and Busy Roads – Interim Guidelines (December 2008).

In reviewing the proposal against surrounding recent residential redevelopments, namely the Claymore redevelopment (north of the site), the recommendations of the Traffic Noise Intrusion Assessment conflict with the recommendations prescribed by the Acoustic Assessment Report prepared for Stage 1 & 2 subdivision of the Claymore Urban Renewal project (1141/2014/DA-SW) which required a solid boundary fence be erected for the properties which proposed rear yards backing onto Badgally Road. Additionally, noise attenuation measures considered the provision of a seven metre landscape buffer between the site boundary and Badgally Road. Acoustic measures proposed under this application are insufficient given the proposed siting and sites proximity to the motorway and Badgally Road.

The assessment heavily relies on the use of mechanical ventilation systems to achieve compliance. Until details of the mechanical ventilation systems are submitted, the proposal has not adequately demonstrated that the development contains appropriate measures that ensures the LAeq levels contained within Clause 102 of the Infrastructure SEPP 2007 are not exceeded.

### **3.3. Site Suitability**

Section 4.15(1)(c) of the EP&A Act requires Council to assess the suitability of the site for the proposed development.

The site is not considered suitable for the proposed development due to its adverse impacts to the natural and built environment and the social and economic impacts on the locality as raised throughout this report.

Fundamentally, the proposal has failed to adequately understand and respect the sites heritage significance, is inconsistent with the zone objectives and proposes a built form that adversely impacts upon the heritage values of the place.

Further, the application has failed to adequately address the surrounding environment, stormwater and water quality requirements, impacts of traffic, parking and access, on-site waste management requirements, vegetation removal, and impacts from adjoining noise sources.

### 3.4. Public Interest

The public interest is a comprehensive requirement that requires consent authorities to consider the long-term impacts of development and the suitability of the proposal in a larger context. The public interest is serviced through the orderly and economic use of land, in a manner that is sensitive to the surrounding environment and having regard to the reasonable amenity expectation of surrounding land users.

In the circumstances of this case, the proposed development is considered to be not in the public interest. The application has failed to consider critical aspects of the site specifically the sites heritage significance, the amenity of the future occupants of the development and the impacts of the proposal.

Further, the application includes a number of non-compliances to the CLEP 2015 and SCDCP 2015 and the proposal would set an undesirable precedent for similar inappropriate and non-compliant residential development within the Campbelltown Local Government Area.

Refusal of the proposed development is considered to be in the public interest.

## 4. Public Participation

Section 4.15(1)(d) of the EP&A Act requires Council to consider submissions. The development application was publicly exhibited and notified to adjoining and nearby properties on 5 February 2019 for a period of 14 days. One submission was received.

A summary of the concerns raised in the submission is provided below:

Issue	Response	Action
<p><b>Overdevelopment of the property.</b></p> <ul style="list-style-type: none"> <li>- The proposed built form is out of context with the visual and historical context of the site.</li> </ul>	<p>It is agreed the proposal is out of character and context to the site. Section 5.7 of this report provides commentary on the impacts on the streetscape and character.</p>	<p>Recommendation to the panel that the development application is not supported.</p>
<p><b>Impact on local heritage item.</b></p> <ul style="list-style-type: none"> <li>- The removal of trees and vegetation will disrupt heritage values of 'Hillcrest' and 'Glenroy House'.</li> <li>- Loss of green spaces and open space will destroy the semi – rural visual character</li> </ul>	<p>It is agreed the proposal will adversely impact on the local heritage item. Section 5.7 of this report provides commentary from Council's external heritage consultant and Council's heritage planner.</p>	<p>Recommendation to the panel that the development application is not supported.</p>

<p>of this historical section of Campbelltown;</p> <ul style="list-style-type: none"> <li>- The proposal is not in keeping with the wider context of the 'Claymore' area and with the development occurring within the Claymore renewal estate.</li> </ul>		
<p><b>Traffic and parking impacts of the future child care centre</b></p> <ul style="list-style-type: none"> <li>- 50-place childcare center will cause chaos for the one road in and out.</li> <li>- Drop off and pick up locations not identified.</li> <li>- Additional car parking to accommodate child care centre is required.</li> </ul>	Development application no longer proposes a centre based child care centre.	Nil
<p><b>Insufficient curtilage proposed to local heritage item</b></p> <ul style="list-style-type: none"> <li>- Curtilage proposed is insufficient</li> <li>- View loss will result from the reduced curtilage</li> </ul>	It is agreed the proposal has failed to adequately assess the sites heritage significance and define an appropriate curtilage. Section 5.7 of this report provides commentary from Council's external heritage consultant and Council's heritage planner.	Recommendation to the panel that the development application is not supported.
<p><b>Insufficient assessment/ investigation of Potential of Aboriginal Heritage item located on site.</b></p> <ul style="list-style-type: none"> <li>- Further information is required to be submitted on the original heritage item located on site.</li> </ul>	It is agreed further assessment of the sites heritage significance is required to be undertaken. Section 5.7 of this report provides commentary from Council's external heritage consultant and Council's heritage planner.	Recommendation to the panel that the development application is not supported.
<p><b>Substantial tree removal off site</b></p> <ul style="list-style-type: none"> <li>- Trees should be retained.</li> <li>- Provision of trees should either be retained or planted along the frontage of Badgally Road and the north western boundary along Glenroy House to provide a 'green barrier' and attenuation measures to and from the development.</li> </ul>	It is agreed the number of healthy mature trees proposed to be removed is disproportionate to the number of trees proposed to be retained. Section 5.7 of this report provides commentary from Council's Open Space Planning and Design officer and Council's Senior Environmental officer.	Recommendation to the panel that the development application is not supported.
<p><b>Insufficient traffic assessment</b></p> <ul style="list-style-type: none"> <li>- Submitted report does not consider the traffic from Shetland Road and is a considerable volume at peak times.</li> </ul>	It is agreed the submitted traffic assessment inadequately assesses the proposal and updated traffic data is required to be utilised. Section 5.7 of this report provides an assessment of the impacts from a traffic and parking perspective	Recommendation to the panel that the development application is not supported.

	and commentary from Council's engineer.	
<b>Acoustic impacts from Motorway on proposed development</b> - Noise measures from motorway to be reviewed to ensure amenity on development is protected.	It is agreed the submitted acoustic report fails to adequately attenuate noise impacts from motorway and Badgally road. Section 5.7 of this report provides an assessment of the impacts from an acoustic perspective.	Recommendation to the panel that the development application is not supported.

## 5. Conclusion

This application has been assessed against the provisions of Section 4.15 of the EP&A Act. The proposed development is permissible with consent under the provisions of the Campbelltown Local Environmental Plan 2015.

The site is identified as a local heritage item under Schedule 5 of the Campbelltown Local Environmental Plan 2015 and the proposal has failed to adequately identify the sites heritage significance. The proposal does not satisfy the heritage provisions of the Clause 5.10 of the CLEP 2015 and requirements listed in Volume 1, Part 2.11.2 of Council's DCP as discussed throughout this report.

Notwithstanding, the insufficient heritage assessment, the proposed built form fails to adequately address a number of critical aspects such as stormwater, built form, access, parking and traffic, landscaping and acoustic. It is considered the proposal represents an overdevelopment of the site and the site is unsuitable for the proposed development in its current form.

Overall, having regard to the matters of consideration under Section 4.15 of the EP&A Act and relevant matters discussed within this report and due to the significant and detrimental impact the proposed development would have on the Hillcrest heritage item it is recommended that the development for the retention of Hillcrest dwelling, minor demolition and works to the dwelling, demolition of remaining buildings and structures on site including tree removal, relocation and rebuilding of the existing barn/stables and conversion to a dwelling and the construction of a multi dwelling housing development involving internal road construction and associated site works at 50 Badgally Road, Claymore (Lot 2 DP 1017017), be refused subject to the recommended reasons for refusal detailed in attachment 1.

## **Attachments**

1. Recommended reasons for refusal (contained within this report)
2. Acoustic Report (contained within this report)
3. Arborist Report (contained within this report)
4. Architectural Plans (contained within this report)
5. RMS Comments (contained within this report)
6. Statement of Heritage Impact (contained within this report)
7. Supplementary Heritage Report (contained within this report)
8. Stormwater Site Plan (contained within this report)
9. Traffic Report (contained within this report)
10. Water Management Plan (contained within this report)
11. Landscape Plans (for confidentiality reasons) (distributed under separate cover)
12. Architectural Plans including Floor Plans (for confidentiality reasons) (distributed under separate cover)

## **Reporting Officer**

Executive Manager Urban Centres



**ATTACHMENT 1**  
**4457/2018/DA-M**  
**Recommended Reasons for Refusal**

Development application 4457/2018/DA-M for the retention of dwelling, minor demolition and works to the dwelling, demolition of remaining buildings and structures on site including tree removal, relocation and rebuilding of the existing barn/stables and the construction of a multi dwelling housing development involving internal road construction and associated site works, Lot 2 DP 1017017, No. 50 Badgally Road, Claymore is refused for the following reasons identified in the assessment of the application under Section 4.15 of the *Environmental Planning and Assessment Act 1979*:

1. The application does not comply with the first objective of the R2 zone of the Campbelltown Local Environmental Plan 2015. The development presents a built form that is characteristic of a medium density residential development through the provision of continuous row terrace style housing and does not reflect a low density residential environment.
2. The application does not comply with the fourth objective of the R2 zone of the Campbelltown Local Environmental Plan 2015. The development does not achieve minimum solar access requirements as required under Volume 1, Part 3 of the Campbelltown (Sustainable City) DCP 2015.
3. The application does not comply with the fifth objective of the R2 zone of the Campbelltown Local Environmental Plan 2015. The development does not enable a diverse and sustainable means of access to the site and significantly compromises pedestrian, cycle and vehicular safety and the surrounding traffic environment.
4. The application does not comply with either the objectives or controls of Clause 5.10 of the Campbelltown Local Environmental Plan 2015. The development fails to adequately assess the heritage significance of the site, provide a satisfactory heritage assessment which assesses the extent of impact caused by the proposed works on the site's heritage significance and fails to submit a Conservation Management Plan.
5. The application does not comply with either the objectives or controls of Clause 7.1 of the Campbelltown Local Environmental Plan 2015. The development has failed to demonstrate the proposal will not disrupt or have any detrimental effect on, drainage patterns and soil stability in the locality of the development.
6. The application does not comply with either the objectives or controls of Clause 7.10 of the Campbelltown Local Environmental Plan 2015. The development has failed to demonstrate the site is capable of being serviced by essential services.
7. The application was not accompanied by satisfactory information to allow Council to properly consider the matters prescribed by Clause 7(1) of SEPP 55. In particular, the potential for contamination from past storage on the site and site buildings and was not addressed to Council's satisfaction.
8. The application was not accompanied by satisfactory information to allow Council to properly consider the matters prescribed by Clause 102 of SEPP (Infrastructure) 2007. The development has not satisfactorily demonstrated that appropriate measures will be taken to ensure that the LAeq levels, prescribed under Clause 102(3) will not be exceeded.
9. The application does not comply with the objectives and controls of the Campbelltown (Sustainable City) Development Control Plan 2015 including:
  - It has not been demonstrated how district views and existing significant view corridors as viewed to and from the heritage dwelling will be protected.
  - It has not been demonstrated that a landscaping strategy which considers the historic cultural landscape, heritage values of the site and retains and enhances the existing native flora and fauna characteristics of the site.

- It has not been demonstrated that compliance with cut and fill requirements in accordance with Part 2.8 of the DCP has been achieved. A maximum 1 metre of cut and fill for dwellings within a residential zone has not been achieved.
  - It has not been demonstrated that compliance with water cycle management and stormwater drainage requirements in accordance with Part 2.10 of the DCP has been achieved.
  - It has not been demonstrated that compliance with heritage requirements in accordance with Part 2.11 of the DCP has been achieved.
  - It has not been demonstrated that compliance with retaining walls requirements in accordance with Part 2.12 of the DCP has been achieved.
  - It has not been demonstrated that compliance with on going waste management requirements in accordance with Part 2.15.3 and Part 3.6.6.9 of the DCP has been achieved.
  - Insufficient information relating to existing onsite septic system has been provided, to determine compliance with onsite waste water sewage management requirements under Part 2.16.3 of the DCP.
  - It has not been demonstrated that the proposed built form is consistent with the streetscape and desired future character of the residential neighbourhood.
  - Cross sections for Road A show excessive cross fall and does not comply with Council's requirements and Australian Standards 2890.1.
  - Access road widths have not demonstrated compliance with the requirements given in Australian Standards 2890.1 with regard to the road category and the proposed number of car spaces.
  - Driveway gradients have not demonstrated compliance with Council's requirements and Australian Standards 2890.1 with regard to kerb type, road and garage levels.
  - It has not been demonstrated that compliance with acoustic privacy requirements in accordance with Part 3.4.3.1 of the DCP has been achieved.
  - It has not been demonstrated that compliance with visual privacy requirements in accordance with Part 3.4.3.2 of the DCP has been achieved.
  - It has not been demonstrated that compliance with solar access requirements in accordance with Part 3.4.4 of the DCP has been achieved.
  - It has not been demonstrated that compliance with general requirements for multi dwelling housing in R2 Zones, subject to the satisfaction of other requirements within the plan in accordance with Part 3.6.6.1 of the DCP has been achieved.
  - Insufficient information relating to retaining walls has been provided to determine compliance with minimum side setback requirements for multi dwelling housing within an R2 zone in accordance with Part 3.6.6.2 of the DCP has been achieved.
  - Direct rear access to unit B11 and B10 has not been achieved in accordance with Part 3.6.6.4 of the DCP.
  - A minimum single garage for each multi dwelling housing unit has not been provided for the existing dwelling.
  - A minimum 38 visitor car spaces has not been achieved.
  - It has not been demonstrated that compliance with private and communal open space requirements for multi dwelling housing in R2 Zones in accordance with Part 3.6.6.6 of the DCP has been achieved.
  - It has not been demonstrated that the proposal satisfies the presentation to public streets requirements for multi dwelling housing in R2 zones in accordance with Part 3.6.6.7 of the DCP.
10. The site is not suitable for the proposed development having regard to the site's heritage significance, failure to adequately assess the site's heritage significance and adequately address a number of critical aspects such as stormwater, built form, access, parking and traffic, landscaping and acoustic impacts.
11. The development would have an adverse impact upon the site's heritage significance, the amenity of the future occupants of the development and the surrounding traffic environment.
12. The proposed development would set an undesirable precedent for similar inappropriate development and is therefore not in the public interest.

**END OF CONDITIONS**



50 Junction Street, Nowra, NSW 2541

P: 02 4421 4583  
M: 0414 315 775

matthew@harwoodacoustics.com.au  
www.harwoodacoustics.com.au

ABN: 71634 997 937

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## Traffic Noise Intrusion Assessment

Proposed Residential Development at:-

50 Badgally Road,  
Claymore, NSW 2599

*Prepared for:-*

120 Smith Pty Ltd  
C/- Design Workshop Australia  
81 Princes Highway  
Fairy Meadow NSW 2519

Attention: Mr Robert Gizzi

Reference: 1809005T-R

*Prepared by:-*

Matthew Harwood MAAS  
8<sup>th</sup> July 2019



Environmental  
Acoustics

Occupational  
Acoustics

Architectural  
Acoustics

Transportation  
Acoustics



## Document Control Page

Revision	Author	Released By	Date
Draft	MH	MH	06/12/2018
Final	MH	MH	07/12/2018
Rev A	MH	MH	24/06/2019
Rev B	MH	MH	08/07/2019

Harwood Acoustics was requested by Design Workshop Australia on behalf of 120 Smith Pty Ltd to carry out a traffic noise intrusion assessment for a proposed residential development to be constructed at 50 Badgally Road, Claymore.

Accordingly, Harwood Acoustics has prepared this report for the exclusive use of the Client identified on the title page. The report is prepared in accordance with the brief and scope of works agreed between the Client and Harwood Acoustics and may not be suitable for use beyond that scope.

Harwood Acoustics undertakes no duty nor accepts any responsibility to any third party who may rely upon this report.

The concepts and information within this report are the property of Harwood Acoustics and the content herein should not be copied or reproduced, in whole or in part, without prior written consent.

Advice and recommendations provided in this report are in relation to acoustical issues only. No claims of expertise are made, and no liability is accepted, in relation to issues falling outside the field of acoustical consulting. These may include, but are not limited to, structural and waterproofing considerations, fire rating or thermal rating. Relevant authorities and / or experts should be consulted regarding areas other than acoustics.

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## 1. INTRODUCTION AND SUMMARY

Harwood Acoustics was commissioned by Design Workshop Australia on behalf of Mr Tony Maiolo, Director of 120 Smith Pty Ltd to carry out a Traffic Noise Intrusion Assessment for a proposed residential development to be constructed at 50 Badgally Road, Claymore, NSW (the Site).

The Site is located on the eastern side of Badgally Road and the northern side of the Hume Motorway as shown in Figure 1.

It is proposed to construct 75 residential units on the Site which will be serviced by an internal road network. The nearest proposed future units will be at a distance of approximately 50 metres from the Hume Motorway and the furthest at a distance of 140 metres.

There is provision for Badgally Road to be widened in the future and the nearest proposed units from the future location of Badgally Road will be at a distance of approximately 6.5 metres.

A proposed masterplan is shown in Figure 2 and full details can be seen in Design Workshop Australia's architectural drawings for project number PN1695 dated July 2019.

Given the proximity of the Site to the Hume Motorway and Badgally Road, it is a requirement of Campbelltown City Council that an assessment of the traffic noise levels affecting future residences within the development is to be undertaken.

The assessment is to be undertaken in accordance with 'Development Near Rail Corridors and Busy Roads – Interim Guidelines 2008'.

The Guidelines refer to Clause 102 of the State Environment Planning Policy (Infrastructure) 2007 (SEPP) which sets internal noise level criteria from road traffic noise emission. These are 35 dBA ( $L_{eq}$ ) inside bedrooms between 10 pm and 7 am and 40 dBA ( $L_{eq}$ ) inside all habitable spaces at any time.

Noise surveys have been conducted at the Site during October and November 2018. A combination of attended and unattended noise measurements has been used to establish typical current Traffic noise levels across the Site.

Traffic noise levels range from 59 to 63 dBA  $L_{eq, 15 \text{ hour}}$  during the day and from 55 and 59 dBA  $L_{eq, 9 \text{ hour}}$  during the night, at the closest and furthest future dwellings to the Motorway respectively.

Traffic Noise levels for Badgally Road have been obtained from a previously undertaken acoustical assessment for Stages 1 and 2 of the Claymore Renewal proposal, prepared by Renzo Tonin and Associates for UrbanGrowth NSW, reference 'TF702-01F02 (r4) stg 1 and 2 DA', dated 20 May 2014 (RTA Report). Traffic noise levels in the RTA Report are predicted to the year 2026 and include the proposed future widening of Badgally Road. The RTA Report traffic noise levels have been extrapolated to the proposed units fronting the future Badgally Road location. The highest levels used to establish building design requirements are 68 dBA and 70 dBA ( $L_{eq, 15 \text{ hour}}$ ) at the lower ground and upper floor facades respectively.

An assessment of the potential noise intrusion into the proposed units from road traffic has been undertaken based on Design Workshop Australia's architectural drawings.

Recommendations are made in Section 5 of this Report relating to the acoustical treatment required for various units. Recommendations include thicker than standard glazing and plasterboard ceilings as well as advice on construction methods and materials for the external walls.

Providing these recommendations are implemented and adhered to, the acceptable internal noise limits set by Clause 102 of SEPP (Infrastructure) 2007 can be met for this development.

## 2. SITE AND BUILDING DESCRIPTION

The proposed site is located on the eastern side of Badgally Road and the northern side of the Hume Motorway as shown in Figure 1.

It is proposed to construct 75 residential units on the Site which will be serviced by an internal road network. The nearest proposed future units will be at a distance of approximately 50 metres from the Hume Motorway and the furthest at a distance of 140 metres. A proposed masterplan is shown in Figure 2 and full details can be seen in Design Workshop Australia's architectural drawings for project number PN1695 dated July 2019.

There will be a variety of unit types and, at that his stage, the architect proposes the following construction materials:-

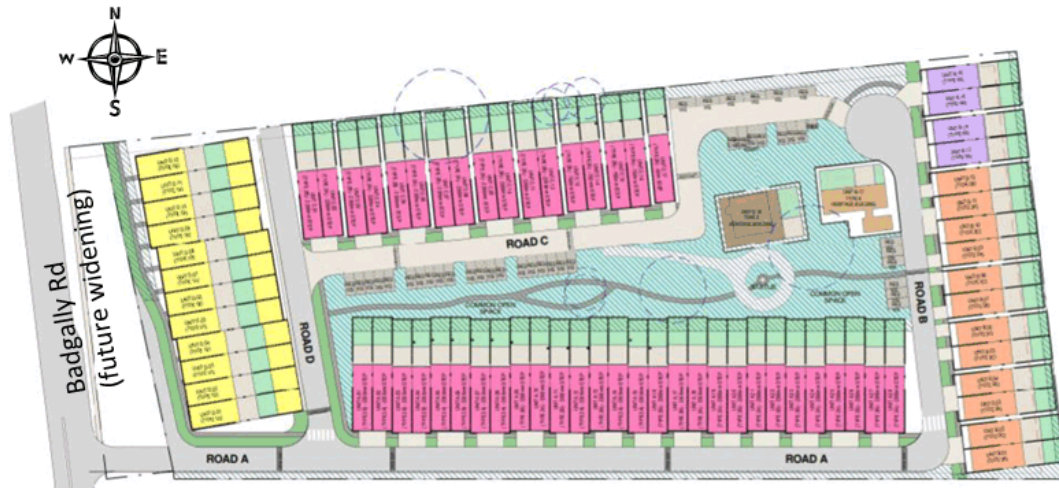
- Brick veneer construction for the majority of ground floor external walls;
- Cement composite cladding (or equivalent) for upper ground and first floor walls;
- Metal deck construction for roofs and set plasterboard construction for ceilings;
- Aluminium framed glazed windows and sliding doors.



**Figure 1. Location Plan – 50 Badgally Road, Claymore, NSW**

(source: NSW Government Spatial Information Exchange ©2017)





Hume Motorway

**Figure 2. Urban Masterplan**

(source: Design Workshop Australia's architectural drawing DA-10 for PN1695)

### 3. NOISE CRITERIA

#### 3.1 Campbelltown City Council

Campbelltown City Council requires an Acoustic Assessment to be undertaken in accordance with the NSW Department of Planning's "Development Near Rail Corridors and Busy Roads – Interim Guidelines" in 2008.

The Guidelines refer to Clause 102 of the State Environment Planning Policy (Infrastructure) 2007.

#### 3.2 Clause 102 - State Environment Planning Policy (Infrastructure) 2007

Clause 102 of the State Environment Planning policy states:-

*"102 Impact of road noise or vibration on non-rail development*

*(1) This clause applies to development for any of the following purposes that is on land in or adjacent to the road corridor for a freeway, a tollway or a transitway or any other road with annual average daily traffic volume of more than 20,000 [formally 40,000] vehicles (based on the traffic volume data published on the website of the RTA) and that the consent authority considers is likely to be adversely affected by rail noise or vibration:*

- (a) a building for residential use,*
- (b) a place of public worship,*
- (c) a hospital,*
- (d) an educational establishment or child care centre.*

*(2) Before determining a development application for development to which this clause applies, the consent authority must take into consideration any guidelines that are issued by the Director-General for the purposes of this clause and published in the Gazette.*

(3) If the development is for the purposes of a building for residential use, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following  $L_{Aeq}$  levels are not exceeded:

- (a) in any bedroom in the building-35 dB(A) at any time between 10.00 pm and 7.00 am,
- (b) anywhere else in the building (other than a garage, kitchen, bathroom or hallway)-40 dB(A) at any time.”

The NSW Department of Planning published the “Development Near Rail Corridors and Busy Roads – Interim Guidelines” in 2008 (the Guidelines). The Guidelines refer to the internal noise limits set by Clause 102 and in addition, states:-

*“If internal noise levels with windows or doors open exceed the criteria by more than 10 dB, the design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia”.*

An assessment of whether or not the ‘trigger’ levels for the need for natural ventilation are exceeded, is undertaken in Section 5.3 of this report.

#### 4. MEASURED TRAFFIC NOISE LEVELS

The author visited the Site to undertake traffic noise surveys throughout the months of October and November 2018.

Noise surveys included long-term unattended monitoring as well as attended noise surveys at several locations across the development Site as shown in Figure 1. A noise logger was placed on the Site from Friday 19 to Thursday 25 October 2018 and attended measurements were conducted on several occasions at varying distances from the Hume Motorway.

Noise measurements have been used to establish the day time and night time traffic noise levels at various locations across the site.

Table 1 below shows traffic noise levels at the nearest and furthest proposed lots.

Unattended noise survey results are shown in graphical format in Appendix B and the details of the instrumentation used during the noise surveys are given in the attached Appendix A.

**Table 1**  $L_{eq}$  Traffic Noise Levels – Locations Across the Site from Hume Motorway

Traffic Noise Levels	dBA	Sound Pressure Levels (dB) at Octave Band Centre Frequencies (Hz)							
		63	125	250	500	1k	2k	4k	8k
<i>Nearest future dwellings (circa 50 metres)</i>									
Day time $L_{eq}$ , 15 hr	<b>63</b>	73	65	60	62	59	53	46	37
Night time $L_{eq}$ , 9 hr	<b>59</b>	69	61	56	58	55	49	42	33
<i>Furthest future dwellings (circa 150 metres)</i>									
Day time $L_{eq}$ , 15 hr	<b>59</b>	69	61	56	68	55	50	42	33
Night time $L_{eq}$ , 9 hr	<b>55</b>	65	57	52	64	51	46	38	29

Spectra are based on measured traffic noise levels closest to the Hume Motorway during peak hour and include heavy vehicles as worst-case scenario.

Traffic measurements at the time of the noise surveys included noise emission from traffic on Badgally Road. However, it is understood that Badgally Road is to be widened in the future and the nearest lane will be at a distance of approximately 6.5 metres from the closest façade of the closest future units.

A 'DA Acoustic Assessment' was prepared in May 2014 by Renzo Tonin and Associates Pty Ltd for Stages 1 and 2 of the Claymore Renewal project, ref 'TF702-01F02 (r4) stg 1 and 2 DA' dated 20/05/2014 (RTA Report).

The RTA Report, among other things, predicts future traffic noise levels from Badgally Road to the year 2026. The traffic noise levels in the RTA Report have been used to extrapolate predicted future traffic noise levels at the nearest facades of proposed future units to Badgally Road. These are shown in Table

**Table 2** **L<sub>eq</sub> Traffic Noise Levels – Nearest Units to Badgally Road**

Traffic Noise Levels	dBA	Sound Pressure Levels (dB) at Octave Band Centre Frequencies (Hz)							
		63	125	250	500	1k	2k	4k	8k
<i>Nearest future dwellings (circa 50 metres)</i>									
Day time L <sub>eq, 15 hr</sub> (lower ground level)	<b>68</b>	78	70	65	67	64	58	51	42

#### Discussion

Based on the traffic volumes, the determining period for assessment is the daytime period. The acoustic design required for the daytime period will also satisfy the night time requirements.

The level in Table 2 does not include any attenuation from boundary fences between the future units and Badgally Road at this stage. Consideration is given to fence attenuation for lower ground floor facades in calculations in Section 5.2 of this report and is discussed further in Section 5.3.

The traffic noise level shown in Table 2 is higher than that provided in the RTA Report as a result of the different distances. The RTA Report noise levels from Badgally Road were predicted at a distance of 20 metres from the nearest lane, whereas the closest future units in this proposal will be at a distance of approximately 6.5 metres. An increase of 2 dB to the upper floor façade is also considered in Section 5.2.

The required traffic noise reduction is therefore as follows:

#### *Nearest future dwellings to Highway*

- (63 – 40 =) 23 dB for all Living areas; and
- (59 – 35 =) 24 dB for all sleeping areas

#### *Furthest future dwellings to Highway*

- (59 – 40 =) 19 dB for all Living areas; and
- (55 – 35 =) 20 dB for all sleeping areas.

*Nearest future dwellings to Badgally Road*

- (70 – 40 =) 30 dB for all Sleeping and Living areas on the upper ground level, and
- (68 – 40 =) 28 dB for all Sleeping and Living areas on the lower ground level.

**5. NOISE MODELLING AND RECOMMENDED ACOUSTICAL TREATMENT****5.1 Noise Modelling Methodology**

The proposed residential units have been modelled based on Design Workshop Australia's architectural drawings for project number PN1695 dated July 2019.

The internal noise levels were calculated using the formula: -

$$L_{p2} = L_{p1} - R_w + 10 \log_{10} (S/A) - K + 6 \text{ dB}$$

Where:

- $L_{p1}$  is the external traffic noise level,
- $R_w$  is the weighted sound reduction index of the partition,
- $S$  is the area of the partition (e.g. wall, roof, window or glazed door),
- $A$  is the acoustic absorption of the room,
- $K$  is an angle of view correction.

**5.2 Building Construction Recommendations**

The levels of traffic noise intrusion have been calculated based on reductions achieved after transmission through the roof, floor, walls, glazed doors and windows.

The internal noise levels required by Clause 102 of the SEPP (Infrastructure) 2007 can be met using the following construction methods and materials.

The development has been divided into three zones by the author (Zones 1, 2 and 3) in order to differentiate between units at varying distances from the Hume Motorway, as shown in Appendix C. These Zones are referenced in the following sections where applicable.

**Walls**

- All external ground floor walls of brick veneer (or other masonry) construction will be acceptable;
- Non-masonry external wall elements should be constructed as follows:-
  - Cement composite cladding such as Hardies 'Linea', 'Stria splayed' or CSR 'Cemintel' (or alternative cladding with equivalent minimum surface density),
  - Internal plasterboard wall lining should comprise 13 mm (minimum) thick sound rated or impact rated plasterboard (or 16 mm thick fire rated plasterboard) for all non masonry walls with the exception of the following:-
    - For Bedroom 1 in Units D01 and D12 (see Appendix C) internal plasterboard wall lining should comprise **two layers** of minimum 13 mm thick sound rated or impact rated plasterboard (or 16 mm thick fire rated plasterboard),
  - all wall cavities to be lined with 50 mm (minimum) thick Glasswool insulation (min 10 kg/m<sup>3</sup> density).

**Roof and Ceiling**

Typical roof and ceilings may consist of:

- Metal deck or concrete/ceramic tile;
- Heavy duty vapour barrier laid below the roof above the glasswool blanket;
- Ceilings under all roofs should comprise one layer of 13 mm (minimum) thick standard plasterboard (or one layer of 10 mm (minimum) thick sound rated plasterboard) with the exception of the following:-
  - All upper floor ceilings in all units in Zone 3 should comprise **two** layers of 13 mm (minimum) thick standard plasterboard (or one layer of minimum 10 mm thick sound rated plasterboard), and
  - Bedroom 1 in all Type 2B units within Zone 1 should comprise **two** layers of 13 mm (minimum) thick standard plasterboard (or one layer of minimum 10 mm thick sound rated plasterboard).
- 50 mm (minimum) Glasswool or polyester insulation should be laid between the ceiling joists, (min. density 10kg/m<sup>3</sup>)

**Glazing**

- Windows and glazed doors may be fixed, awning, double hung or sliding style in aluminium or timber frames;
- Table 2 below specifies minimum sound reduction index ( $R_w$ ) ratings required for various windows and glazed doors.
- An example glazing specification is given in Table 3, however an alternative glazing may be used provided that the minimum  $R_w$  rating is achieved. Suppliers of any glazing should provide certified laboratory test results to support the claim of any acoustically rated window systems.

**Table 3 Recommended Window Schedule**

Room Description	Min R <sub>w</sub>	Example Glazing Specification
<b>Zone 1</b>		
<b>Type 1 Units (all types)</b>		
All glazing	32	6.38 mm laminated glass
<b>Type 2 Units (all types)</b>		
Bedroom 1	35	10.5 mm 'Hush' laminated glass
All other glazing	32	6.38 mm laminated glass
<b>Type 3 Units (all types)</b>		
Living Dining Bedroom 1	35	10.5 mm 'Hush' laminated glass
All other glazing	32	6.38 mm laminated glass
<b>Zone 2</b>		
<b>All Type 1 Units (all types)</b>		
All bedrooms	32	6.38 mm laminated glass
Living Dining	30	6.38 mm laminated glass
<b>Type 2 Units</b>		
Bedroom 1 (type 2B Units)	32	6.38 mm laminated glass
All other glazing (all types)	30	6.38 mm laminated glass
<b>Type 3 Units (all types)</b>		
Living Dining Bedroom 1	32	6.38 mm laminated glass
All other glazing	30	6.38 mm laminated glass
<b>Type 4 Units (all types)</b>		
All glazing	30	6.38 mm laminated glass
<b>Zone 3</b>		
<b>All Units (ground (upper) floor)</b>		
Bedroom 1	38	12 mm laminated glass
Living	35	10.5 mm 'Hush' laminated glass
Bathroom	32	6.38 mm laminated glass
<b>All Units (lower ground floor)</b>		
Bedroom 2 & Entry	32	6.38 mm laminated glass

All glazing in Table 2 should be fitted with acoustic foam weather seals (e.g. Q-Lon from Schlegel or similar).

All other glazing not listed in Table 2 may be of standard thickness with a minimum rating of **R<sub>w</sub> 25**.

### **5.3 Boundary Fence Badgally Road**

It is proposed to erect a boundary fence to the west of the proposed Units in Zone 3 (see Appendix C) between the site and Badgally Road. The fence will be erected to a minimum height of 1.2 metres above the ground level of the Units fronting Badgally Road.

The proposed fence will provide a minimal reduction in traffic noise levels following the widening of Badgally Road at the lower ground floor of the closest units only and this is reflected in the recommendations for glazing performance provided in Table 3.

The fence should be constructed from any impervious material without holes or gaps (e.g. lapped timber, sheet steel or masonry)

There is no realistic screen height that will provide any appreciable noise attenuation from traffic at the ground floor (upper level) if Units fronting Badgally Road. However there is no requirement for this and the internal recommended noise levels set by Clause 102 of the SEPP (Infrastructure) can be met with façade treatment outlined in Section 5.2 above.

### **5.4 Entry Doors**

All entry doors should be of minimum 35 mm solid core timber construction.

### **5.5 Mechanical Ventilation Requirements**

The NSW Department of Planning's document Development near Rail Corridors and Busy Roads – Interim Guideline 2008 states:-

*“If internal noise levels with windows or doors open exceed the criteria by more than 10dB, the design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia.”*

The external noise level from on road traffic at the façade of the nearest proposed Units in Zone 1 is:-

- 63 dBA during the day and 59 dBA at night.

The external noise level from on road traffic at the façade of the nearest proposed Units in Zone 3 is:-

- 65 dBA during the day and 55 - 59 dBA at night.

A reduction of up to 10 dB from outside to inside is typically achieved with the windows/doors open. This results in an internal noise level of:-

- (65 – 10 =) 55 dBA during the day in Zone 3,
- (63 – 10 =) 53 dBA during the day in Zone 1, and
- (59 – 10 =) 49 dBA during the night in Zones 1 and part Zone 3.

As detailed in Section 3.2 of this Report, the internal assessment trigger level for the requirement for natural ventilation is 10 dB above the acceptable internal noise level when the windows or doors are partially open.

This results in trigger levels of (40 + 10 =) 50 dBA (day time) and (35 + 10 =) 45 dBA (night time).

The predicted levels of 55 dBA, 53 dBA and 49 dBA respectively at the closest future dwellings to the Motorway may exceed the trigger levels in certain rooms (typically those overlooking the Motorway). These rooms may need to be ventilated such that occupants may leave their windows closed if they so desire.

Any ventilation is to meet the requirements of the Building Code of Australia and final assessments will be undertaken prior to the issue of Construction Certificates.

### **5.6 Heritage Building**

It is proposed to restore or refurbish the Heritage building on the site to become a residential dwelling.

It is reported that it is not permissible to alter the external façade of the building in accordance with Heritage preservation requirements.

In the event that it is permissible, then the glazing in the heritage building should achieve the same acoustical performance requirements of windows for units in Zone 2 as detailed in Table 3 in Section 5.2 above.



## 6. CONCLUSION

A traffic noise intrusion assessment for a proposed residential development at 50 Badgally Road, Claymore, NSW has been undertaken.

Traffic noise levels have been measured and established at the development Site and used to calculate external noise levels across the Site. These external noise levels have then been used to calculate internal noise levels within each of the proposed future Units.

Recommendations are made in Section 5 of this report to reduce internal noise levels within various rooms.

Providing these recommendations are implemented, the internal noise level requirements set by Clause 102 of SEPP (Infrastructure) 2007 will be met for this development.



**Matthew Harwood**, MAAS

Principal Acoustical Consultant

Attachments:-

Appendix A – Noise Survey Instrumentation

<b>Noise Survey Instrumentation</b>	<b>Appendix A</b>
-------------------------------------	-------------------

The instrumentation used during the noise survey consisted of the following:-

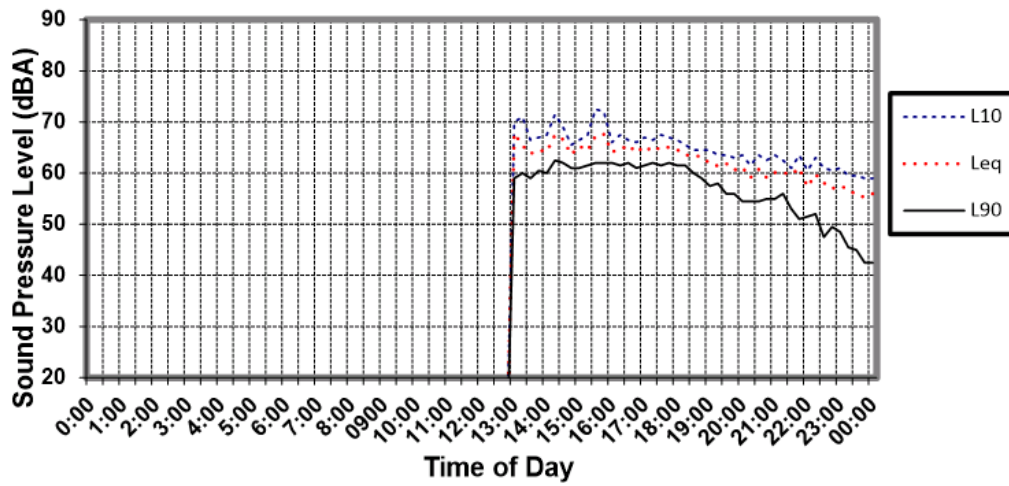
Description	Model No.	Serial No.
SvanTek Sound Level Meter	SVAN 957	15395
Bruel & Kjaer Sound Level Meter	2260	244 3406
Infobyte Noise Logger Model im4	104	104
Acoustical Calibrator	SV34A	58762

The sound level meters conform to Australian Standard AS IEC 61672.1-2004 : 'Electroacoustics - Sound level meters – Specifications' as a Class 1 precision sound level meter. The Infobyte noise logger conforms to Australian Standard AS 1259 as a Type 2 sound level meter.

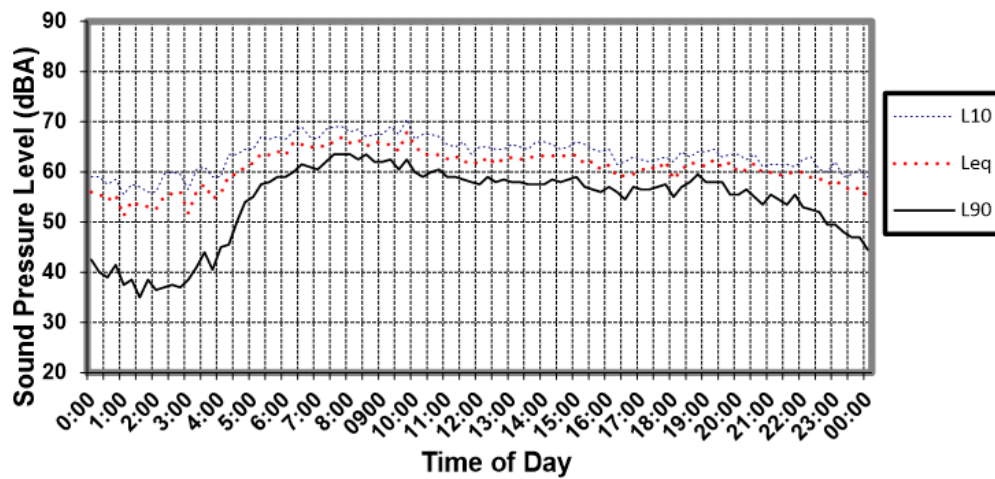
The calibration of the meters and logger was checked before and after the measurement period. No significant system drift occurred over the measurement period. The sound level meter and calibrator have been checked, adjusted and aligned to conform to the factory specifications and issued with conformance certificates as required by the regulations.

<b>Noise Survey Results</b>	<b>Appendix B</b>
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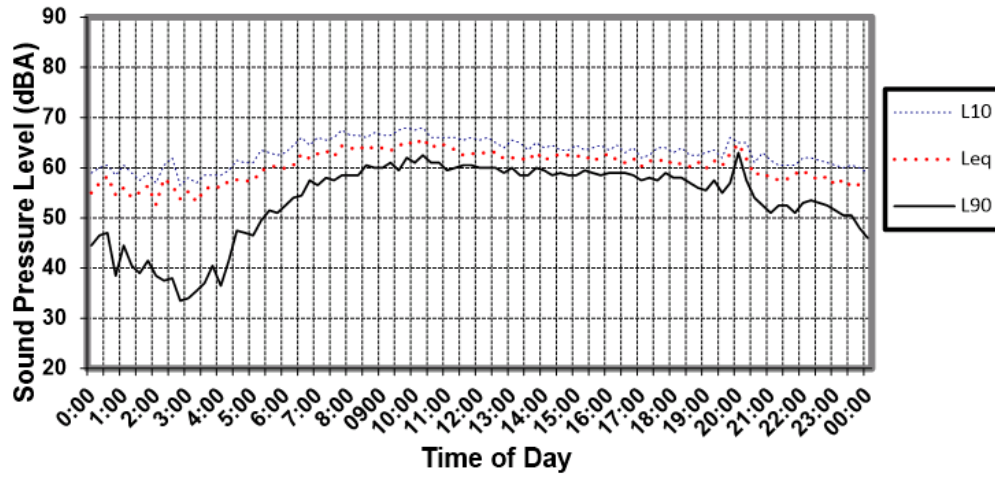
**Friday October 19<sup>th</sup> 2018**



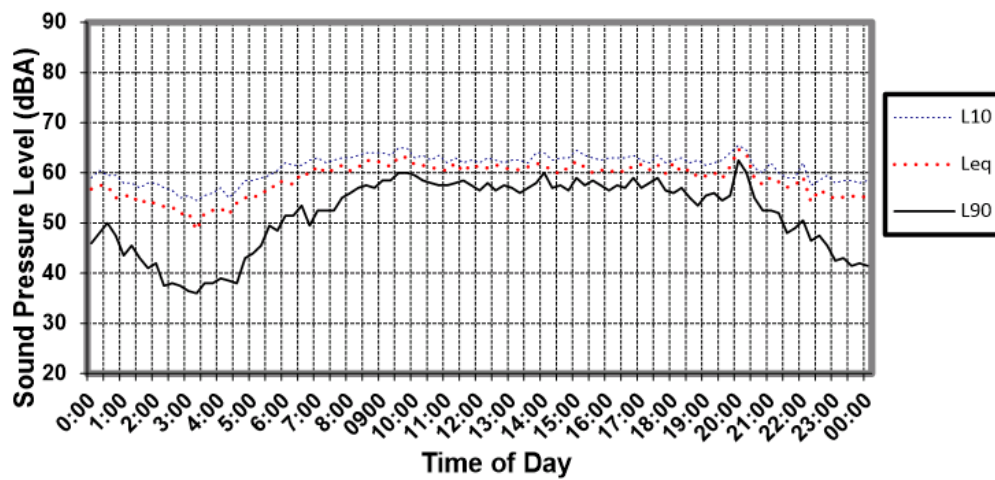
**Saturday October 20<sup>th</sup> 2018**



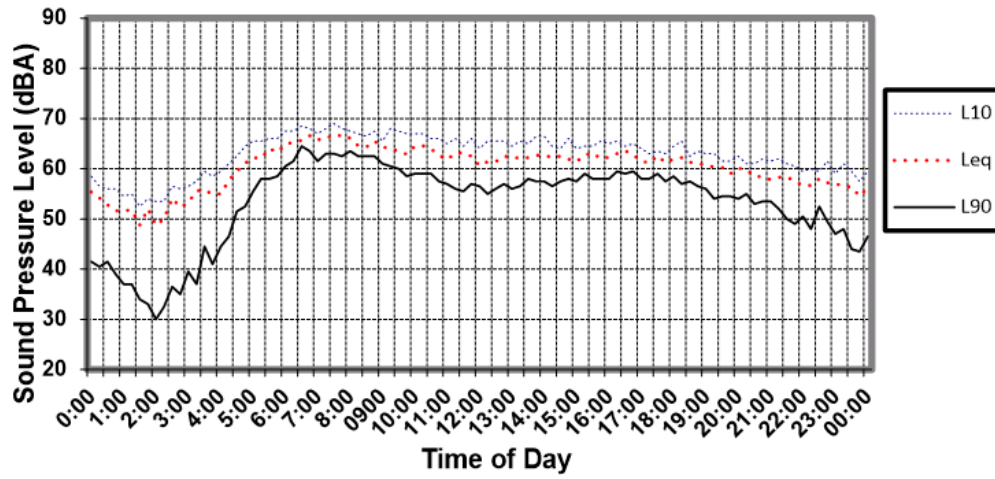
Sunday October 21<sup>st</sup> 2018



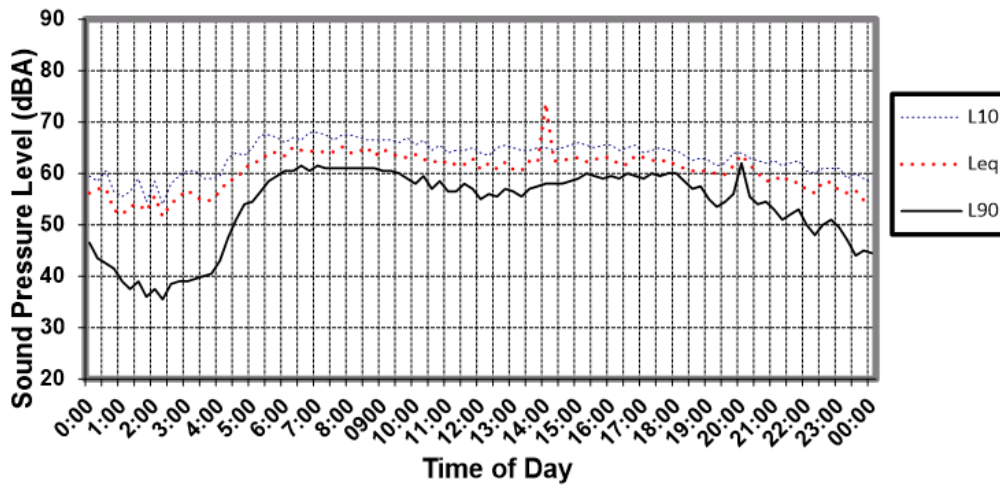
Monday October 22<sup>nd</sup> 2018



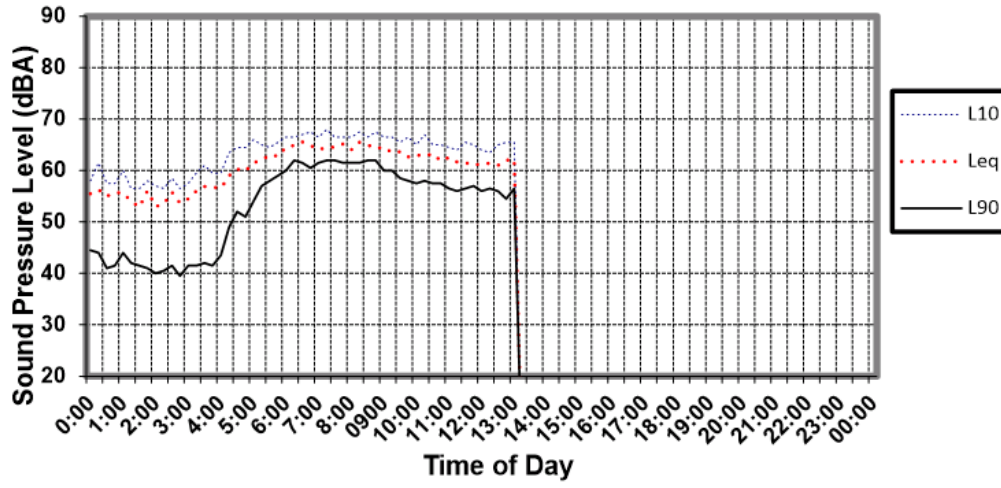
Tuesday October 23<sup>rd</sup> 2018



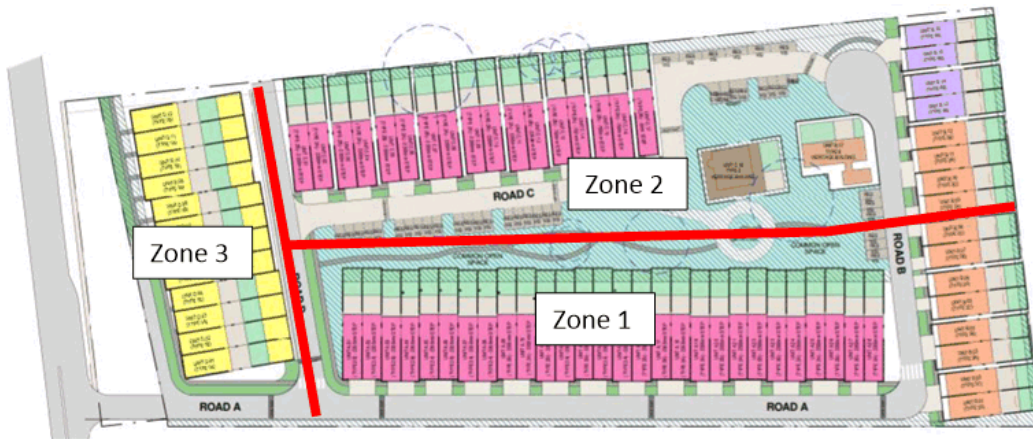
Wednesday October 24<sup>th</sup> 2018



Thursday October 25<sup>th</sup> 2018



<b>Development Zone Map</b>	<b>Appendix C</b>
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# Naturally Trees

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## **Arboricultural Impact Appraisal and Method Statement**

(Revision A)

50 Badgally Road  
Claymore, NSW

Prepared for  
Mr T Maiolo

---

1 July 2019

by Andrew Scales

Dip. Horticulture / Dip. Arboriculture AQF5

PO Box 5085, Elanora Heights NSW 2101

E: [info@naturallytrees.com.au](mailto:info@naturallytrees.com.au) M: 0417 250 420

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## Summary

The proposed development is to demolish the existing structures and create a new sub-division development. I have inspected all the trees that could be affected and list their details in Appendix 2. Based on this information, I provided guidance to project architect on the constraints these trees impose on the use of the site.

Twenty-one high category trees and fifty-four low category trees will be lost because of this proposal. However, the low category trees are generally weed species that should be removed irrespective of the proposal. The proposed changes may adversely affect a further nine high category trees if appropriate protective measures are not taken. However, if adequate precautions to protect the retained trees are specified and implemented through the arboricultural method statement included in this report, the development proposal is expected to have a high impact on the contribution of trees to local amenity or character.



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## 1. INTRODUCTION

- 1.1 **Instruction:** I am instructed by Design Workshop Australia to inspect the tree population at 50 Badgally Road, Claymore and to provide an arboricultural report to accompany a development application. This report investigates the impact of the proposed development on trees and provides the following guidelines for appropriate tree management and protective measures:
- a schedule of the relevant trees to include basic data and a condition assessment;
  - an appraisal of the impact of the proposal on trees and any resulting impact that has on local character and amenity;
  - a preliminary arboricultural method statement setting out appropriate protective measures and management for trees to be retained
- 1.2 **Purpose of this report:** This report provides an analysis of the impact of the development proposal on trees with additional guidance on appropriate management and protective measures. Its primary purpose is for the council to review the tree information in support of the planning submission and use as the basis for issuing a planning consent or engaging in further discussions towards that end. Within this planning process, it will be available for inspection by people other than tree experts, so the information is presented to be helpful to those without a detailed knowledge of the subject.
- 1.3 **Qualifications and experience:** I have based this report on my site observations and the provided information, and I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture and include a summary in Appendix 1.
- 1.4 **Documents and information provided:** Design Workshop Australia provided me with copies of the following documents:
- Survey Plan, Dwg No. 18464/5, by c. Robson & Associates Pty Ltd dated 5 September 2018;
  - Plans, Dwg No. DA10 to DA22 (Revision DD), by Design Workshop Australia dated 21 June 2019; and
  - Plans and Sections, Dwg No. DA15 to DA17 and DA33 to DA35 (Revision GG), by Design Workshop Australia dated June 2019.
- 1.5 **Scope of this report:** This report is only concerned with eighty-four trees located within the subject site. It takes no account of other trees, shrubs or groundcovers within the site unless stated otherwise. It includes a preliminary assessment based on the site visit and the documents provided, listed in 1.4 above.



## 2. THE LAYOUT DESIGN

- 2.1 **Tree AZ method of tree assessment:** The TreeAZ assessment method determines the worthiness of trees in the planning process. TreeAZ is based on a systematic method of assessing whether individual trees are important and how much weight they should be given in management considerations. Simplistically, trees assessed as potentially important are categorised as 'A' and those assessed as less important are categorised as 'Z'. Further explanation of TreeAZ can be found in Appendix 3.

In the context of new development, all the Z trees are discounted as a material constraint in layout design. All the A trees are potentially important and they dictate the design constraints. This relatively simple constraints information is suitable for use by the architect to optimise the retention of the best trees in the context of other material considerations.

### 2.2 Site visit and collection of data

- 2.2.1 **Site visit:** I carried out an unaccompanied site visit on 12 September 2018. All my observations were from ground level and I estimated all dimensions unless otherwise indicated. Aerial inspections, root or soil analysis, exploratory root trenching and internal diagnostic testing was not undertaken as part of this assessment. I did not have access to trees on other private properties and have confined observations of them to what was visible from within the property. The weather at the time of inspection was clear and dry with good visibility.

- 2.2.2 **Brief site description:** 50 Badgally Road is located in the residential suburb of Claymore (refer figure 1). The site is on the north-eastern side of the road and surrounded by similar rural development. The property consists of a single storey cottage that is currently occupied and set to the rear of the property. A variety of ornamental, coniferous and indigenous trees are scattered throughout the site and around the site boundaries.

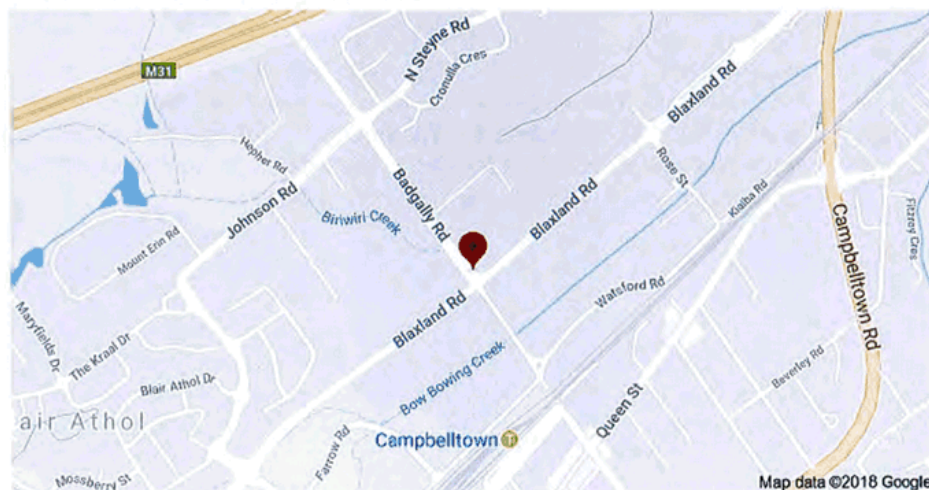


Figure 1: The location of the subject site (www.googlemaps.com).



- 2.2.3 **Collection of basic data:** I inspected each tree and have collected information on species, height, diameter, maturity and potential for contribution to amenity in a development context. I have recorded this information in the tree schedule included, with explanatory notes, in Appendix 2. Each tree was then allocated to one of four categories (**AA**, **A**, **Z** or **ZZ**), which reflected its suitability as a material constraint on development.
- 2.2.4 **Identification and location of the trees:** I have illustrated the locations of the significant trees on the Tree Management Plan (Plan TMP01) included as Appendix 8. This plan is for illustrative purposes only and it should not be used for directly scaling measurements.
- 2.2.5 **Advanced interpretation of data:** Australian Standard *Protection of trees on development sites* (AS4970-2009), recommends that the trunk diameter measurement for each tree is used to calculate the tree protection zone (TPZ), which can then be interpreted to identify the design constraints and, once a layout has been consented, the exclusion zone is to be protected by barriers.
- 2.3 **The use of the tree information in layout design:** Following my inspection of the trees, the information listed in Appendix 2 was used to provide constraints guidance based on the locations of all the A trees. All the Z trees were discounted because they were not considered worthy of being a material constraint. This guidance identified two zones of constraint based on the following considerations:
- The tree protection zone (TPZ) is an area where ground disturbance must be carefully controlled. The TPZ was established according to the recommendations set out in AS4970-2009 and is the radial offset distance of twelve (x12) times the trunk diameter. In principle, a maximum encroachment of 10% is acceptable within the TPZ and a high level of care is needed during any activities that are authorised within it if important trees are to be successfully retained.
  - The structural root zone (SRZ) is a radial distance from the centre of a tree's trunk, where it is likely that structural, woody roots would be encountered. The distance is calculated on trunk flare diameter at ground level. The SRZ may also be influenced by natural or built structures, such as rocks and footings. The SRZ only needs to be calculated when major encroachment (>10%) into a TPZ is proposed.



### 3. ARBORICULTURAL IMPACT APPRAISAL

- 3.1 **Summary of the impact on trees:** I have assessed the impact of the proposal on trees by the extent of disturbance in TPZs and the encroachment of structures into the SRZ (as set out briefly in 2.3 above and more extensively in Appendix 2). All the trees that may be affected by the development proposal are listed in Table 1

**Table 1: Summary of existing trees and trees that may be affected by development**

Impact	Reason	Important trees		Unimportant trees	
		AA	A	Z	ZZ
Retained trees that may be affected through disturbance to TPZs	Removal of existing surfacing/structures/landscaping and/or installation of new surfacing/structures/landscaping	69	17, 21, 25, 26, 27, 41, 42, 45		
Trees to be removed	Construction and/or level variations within TPZ	44, 47	2, 3, 16, 46, 59, 60, 61, 62, 63, 64, 65, 66, 68, 81, 82, 83, 84, 85, 87	1, 4, 5, 6, 9, 19, 20, 22, 23, 24, 32, 37, 39, 40, 48, 50, 51, 55, 58, 70, 71, 73, 74, 75, 76, 77, 78, 79	7, 8, 10, 11, 12, 13, 14, 15, 18, 28, 29, 30, 31, 33, 34, 36, 38, 49, 52, 53, 54, 56, 57, 67, 72, 80

#### 3.2 Detailed impact appraisal

- 3.2.1 **Category AA and A trees to be lost:** The proposed development will necessitate the removal of twenty-one high category trees (Trees 2, 3, 16, 44, 46, 47, 59, 60, 61, 62, 63, 64, 65, 66, 68, 81, 82, 83, 84, 85 and 87). These trees are considered moderate to high significance and display good health and condition. In order to compensate for loss of amenity, consideration should be given to replacement planting within the site.

- 3.2.2 **Category AA and A trees that could potentially be adversely affected through TPZ disturbance:** Nine category A and AA trees (Trees 17, 21, 25, 26, 27, 41, 42, 45 and 69) could potentially be adversely affected through disturbance to their TPZs as follows:

- Trees 17, 21, 25, 26, 27, 41, 42, 45 and 69: These are important trees with a high potential to contribute to amenity so any adverse impacts on them should be minimised. The proposed works will come within close proximity to these trees and will cause harm if not carried out with care.

Tree sensitive construction measures must be implemented if works are to proceed within the TPZ as prescribed by the Australian Standard AS4970-2009 *Protection of trees on development sites*. Similarly,

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excavation works required to be undertaken within the TPZ shall be performed by hand under the supervision of the project arborist.

If it is intended to retain these trees, appropriate protective measures shall be properly specified and controlled through the detailed arboricultural method statement in Section 4.

- 3.2.3 **Low category trees to be removed:** The proposed development will necessitate the removal of fifty-four trees of low and very low retention value. None of these trees are considered significant or worthy of special measures to ensure their preservation.

### 3.3 Proposals to mitigate any impact

- 3.3.1 **Protection of retained trees:** The successful retention of trees within the site will depend on the quality of the protection and the administrative procedures to ensure protective measures remain in place throughout the development. An effective way of doing this is through an arboricultural method statement that can be specifically referred to in the planning condition. An arboricultural method statement for this site is set out in detail in Section 4.

- 3.3.2 **New planting:** In the context of the loss of trees, a comprehensive new landscaping scheme is recommended including semi-mature indigenous trees to be planted within available areas in prominent locations. The suggested selection of species, size and location are provisional and would not be considered final until all relevant parties had been fully consulted. The new trees should have the potential to reach a significant height without excessive inconvenience and be sustainable into the long term, significantly improving the potential of the site to contribute to local amenity and character.

- 3.3.3 **Summary of the impact on local amenity:** Twenty-one high category trees and fifty-four low category trees will be lost because of this proposal. However, the low category trees are generally weed species that should be removed irrespective of the proposal. The proposed changes may adversely affect a further nine high category trees if appropriate protective measures are not taken. However, if adequate precautions to protect the retained trees are specified and implemented through the arboricultural method statement included in this report, the development proposal is expected to have a high impact on the contribution of trees to local amenity or character.



## 4. ARBORICULTURAL METHOD STATEMENT

### 4.1 Introduction

4.1.1 **Terms of reference:** The impact appraisal in Section 3 identified the potential impacts on trees caused by proposed development. Section 4 is an arboricultural method statement setting out management and protection details that must be implemented to secure successful tree retention. It has evolved from Australian Standard AS4970-2009 *Protection of trees on development sites*.

4.1.2 **Plan TMP01:** Plan TMP01 in Appendix 8 is illustrative and based entirely on provided information. This plan should only be used for dealing with the tree issues and all scaled measurements must be checked against the original submission documents. The precise location of all protective measures must be confirmed at the pre-commencement meeting before any demolition or construction activity starts. Its base is the existing land survey, which has the proposed layout superimposed so the two can be easily compared. It shows the existing trees numbered, with high categories (A) highlighted in green triangles and low categories (Z) highlighted in blue rectangles. It also shows the locations of the proposed protective measures.

### 4.2 Tree protection with fencing and ground protection

4.2.1 **Protection fencing:** Tree protection fencing must comply with AS4970 (section 4.3) recommendations. An illustrative guide is included as Appendix 4. The approximate location of the barriers and the TPZs is illustrated on plan TMP01. The precise location of the fencing must be agreed with the project Arborist before any development activity starts.

4.2.2 **Ground protection:** Any TPZs outside the protective fencing must be covered in ground protection based on AS4970 recommendations until there is no risk of damage from the demolition and construction activity. An illustrative specification for this ground protection is included as Appendix 5. On this site, it must be installed near Trees 17, 21, 25, 26, 27, 41, 42, 45 and 69 as illustrated on plan TMP01 before any demolition and construction starts.

4.3 **Precautions when working in TPZs:** Any work in TPZs must be done with care as set out in Appendix 6. On this site, special precautions must be taken near Trees 17, 21, 25, 26, 27, 41, 42, 45 and 69 as illustrated on plan TMP01 and summarised below:

- **Removal of existing surfacing/structures and replacement with new surfacing/structures:** Trees 17, 21, 25, 26, 27, 41, 42, 45 and 69 may be adversely affected by the demolition and construction works. Any adverse impact must be minimised by following the guidance set out in Appendix 6.





- **Installation of new soft landscaping:** All landscaping activity within TPZs has the potential to cause severe damage and any adverse impact must be minimised by following the guidance set out in Section 7 of Appendix 6.
- **Installation of new services or upgrading of existing services:** It is often difficult to clearly establish the detail of services until the construction is in progress. Where possible, it is proposed to use the existing services into the site and keep all new services outside TPZs. However, where existing services within TPZs require upgrading or new services have to be installed in TPZs, great care must be taken to minimise any disturbance. Trenchless installation should be the preferred option but if that is not feasible, any excavation must be carried out by hand according to the guidelines set out in Section 6 of Appendix 6. If services do need to be installed within TPZs, consultation must be obtained from the project Arborist and/or council before any works are carried out.

#### 4.4 Other tree related works

- 4.4.1 **Site storage, cement mixing and washing points:** All site storage areas, cement mixing and washing points for equipment and vehicles must be outside TPZs unless otherwise agreed with the project Arborist and/or council. Where there is a risk of polluted water run off into TPZs, heavy-duty plastic sheeting and sandbags must be used to contain spillages and prevent contamination.
- 4.4.2 **Pruning:** Any pruning that is required to accommodate hoardings, scaffolding or to accommodate the unloading/loading of vehicles and has been approved by Council shall be carried out by a qualified Arborist (AQF3) and must be in accordance with AS4373 Australian Standards 'Pruning of Amenity Trees'.

#### 4.5 Programme of tree protection and supervision

- 4.5.1 **Overview:** Tree protection cannot be reliably implemented without arboricultural input. The nature and extent of that input varies according to the complexity of the issues and the resources available on site. For this site, a summary of the level of arboricultural input that is likely to be required is set out in Appendix 7. The project arborist must be instructed to work within this framework to oversee the implementation of the protective measures and management proposals set out in this arboricultural method statement.

The framework in Appendix 7 must form the basis for the discharge of planning conditions through site visits by the project arborist. These supervisory actions must be confirmed by formal letters circulated to all relevant parties. These permanent records of each site visit will accumulate to provide the proof of compliance and allow conditions to be discharged as the development progresses. The developer must instruct the project arborist to comply with the



supervision requirements set out in this document before any work begins on site.

- 4.5.2 **Phasing of arboricultural input:** Trees can only be properly budgeted for and factored into the developing work programmes if the overall project management takes full account of tree issues once consent is confirmed. The project arborist must be involved in the following phases of the project management:

1. **Administrative preparation before work starts on site:** It is normal for a development proposal to vary considerably from the expectations before consent as the detailed planning of implementation evolves. The early instruction of the project arborist ensures that tree issues are factored into the complexities of site management and can often help ease site pressures through creative approaches to tree protection. Pre-commencement discussions between the project arborist and the developer's team is an effective means of managing the tree issues with difficult constraints.

2. **Pre-commencement site meeting:** A pre-commencement meeting must be held on site before any of the demolition and construction work begins. This must be attended by the site manager and the project arborist. Any clarifications or modifications to the consented details must be recorded and circulated to all parties in writing. This meeting is where the details of the programme of tree protection will be agreed and finalised by all parties, which will then form the basis of any supervision arrangements between the project arborist and the developer.

3. **Site supervision:** Once the site is active, the project arborist must visit at an interval agreed at the pre-commencement site meeting. The supervision arrangement must be sufficiently flexible to allow the supervision of all sensitive works as they occur. The project arborist's initial role is to liaise with developer to ensure that appropriate protective measures are designed and in place before any works start on site. Once the site is working, that role will switch to monitoring compliance with arboricultural conditions and advising on any tree problems that arise or modifications that become necessary.

- 4.6 **Site management:** It is the developer's responsibility to ensure that the details of this arboricultural method statement and any agreed amendments are known and understood by all site personnel. Copies of the agreed documents must be kept on site at all times and the site manager must brief all personnel who could have an impact on trees on the specific tree protection requirements. This must be a part of the site induction procedures and written into appropriate site management documents.



## 5. HOW TO USE THIS REPORT

5.1 **Limitations:** It is common that the detail of logistical issues such as site storage and the build programme are not finalised until after consent is issued. As this report has been prepared in advance of consent, some of its content may need to be updated as more detailed information becomes available once the post-consent project management starts. Although this document will remain the primary reference in the event of any disputes, some of its content may be superseded by authorised post-consent amendments.

5.2 **Suggestions for the effective use of this report:** Section 4 of this report, including the relevant appendices, is designed as an enforcement reference. It is constructed so the council can directly reference the detail in a planning condition. Referencing the report by name and relating conditions to specific subsections is an effective means of reducing confusion and facilitating enforcement in the event of problems during implementation. More specifically, the following issues should be directly referenced in the conditions for this site:

1. Pre-commencement meeting	4.5
2. Protection fence	4.2.1 and Appendix 4
3. Ground protection	4.2.2 and Appendix 5
4. Removal of surfacing/structures	4.3 and Appendix 6 (Section 4)
5. Installation of surfacing/structures	4.3 and Appendices 6 (Section 5)
6. Services	4.3 and Appendix 6 (Section 6)
7. Landscaping	4.3 and Appendix 6 (Section 7)
8. Programming of tree protection	4.5 and Appendix 7
9. Arboricultural supervision	4.5 and Appendix 7

Each of the above matters shall be supervised by the project arborist and the relevant conditions can only be discharged once that supervision has been confirmed in writing to the relevant parties. The last column of the table in Appendix 7 is to be used so that the various supervision issues can be recorded as they are confirmed by supervision letters. It is intended to act as a summary quick-reference to help keep track of the progress of the supervision.



## 6. OTHER CONSIDERATIONS

- 6.1 **Trees subject to statutory controls:** The subject trees are legally protected under Campbelltown City Council's Tree Preservation Order, it will be necessary to consult the council before any pruning works other than certain exemptions can be carried out. The works specified above are necessary for reasonable management and should be acceptable to the council. However, tree owners should appreciate that the council may take an alternative point of view and have the option to refuse consent.

## 7. BIBLIOGRAPHY

### 7.1 List of references:

Australian Standard AS4373-2007 *Pruning of Amenity Trees*.  
Standards Australia.

Australian Standard AS4970-2009 *Protection of trees on development sites*.  
Standards Australia.

Barrell, J (2009) Draft for Practical Tree AZ version 9.02 A+NZ  
Barrel Tree Consultancy, Bridge House, Ringwood BH24 1EX

Brooker, M. Kleinig, D (1999) Field guide to eucalypts – South eastern Aust.  
Blooming Books, Hawthorn Vic.

Matheny, N.P. & Clark, J.R. (1998) Trees & Development: A Technical Guide to Preservation of Trees During Land Development  
International Society of Arboriculture, Savoy, Illinois.

Mattheck, Dr. Claus R., Breloer, Helge (1995) The Body Language of Trees - A Handbook for Failure Analysis;  
The Stationery Office, London. England.

Robinson, L (1994) Field Guide to the Native Plants of Sydney  
Kangaroo Press, Kenthurst NSW



## 8. DISCLAIMER

### 8.1 Limitations on use of this report:

*This report is to be utilized in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, and directly attached to that submission, report or presentation.*

#### ASSUMPTIONS

*Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible: however, Naturally Trees can neither guarantee nor be responsible for the accuracy of information provided by others.*

*Unless stated otherwise:*

- *Information contained in this report covers only those trees that were examined and reflects the condition of those trees at time of inspection: and*
- *The inspection was limited to visual examination of the subject trees without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.*

Yours sincerely

Andrew Scales  
Dip. Horticulture / Arboriculture  
Mobile: 0417 250 420



## APPENDIX 1

### Brief qualifications and experience of Andrew Scales

**1. Qualifications:**

Associate Diploma Horticulture	Northern Sydney Institute of TAFE	1995-1998
Certificate in Tree Surgery	Northern Sydney Institute of TAFE	1998
Associate Diploma Arboriculture	Northern Sydney Institute of TAFE	1999-2006

- 2. Practical experience:** Being involved in the arboricultural/horticultural industry for in excess of 10 years, I have developed skills and expertise recognized in the industry. Involvement in the construction industry and tertiary studies has provided me with a good knowledge of tree requirements within construction sites.

As director of Naturally Trees, in this year alone I have undertaken hundreds of arboricultural consultancy projects and have been engaged by a range of clients to undertake tree assessments. I have gained a wide range of practical tree knowledge through tree removal and pruning works.

**3. Continuing professional development:**

Visual Tree Assessment (Prof. Dr. Claus Mattheck)	Northern Sydney Institute of TAFE	2001
Wood Decay in Trees (F.W.M.R.Schwarze)	Northern Sydney Institute of TAFE	2004
Visual Tree Assessment (Prof. Dr. Claus Mattheck)	Carlton Hotel, Parramatta NSW	2004
Tree A-Z / Report Writing (Jeremy Barrell)	Northern Sydney Institute of TAFE	2006
Up by Roots – Healthy Soils and Trees in the Built Environment (James Urban)	The Sebel Parramatta NSW	2008
Tree Injection for Insect Control (Statement of Attainment)	Northern Sydney Institute of TAFE	2008
Quantified Tree Risk Assessment (QTRA) Registered Licensee #1655	South Western Sydney Institute	TAFE 2011
Practitioners Guide to Visual Tree Assessment	South Western Sydney Institute	TAFE 2011
Quantified Tree Risk Assessment (QTRA) Registered Licensee #1655	Richmond College NSW	TAFE 2014
VALID Approach to Likelihood of Failure (David Evans)	Centennial Park NSW	2017



## APPENDIX 2

### Tree schedule

NOTE: Colour annotation is AA & A trees with green background; Z & ZZ trees with blue background; trees to be removed in red text.

No.	Genus species	Height	Spread	DBH	TPZ	Foliage %	Age class	Defects/Comment	Location	Services	Significance	Tree AZ
1	<i>Quercus robur</i>	9	5	300	3.6	70%	S	Nil	Garden bed	Nil	L	Z1
2	<i>Quercus robur</i>	14	14	700	8.4	80%	M	Nil	Garden bed	Nil	M	A1
3	<i>Fraxinus augustifolia</i>	10	9	350	4.2	80%	M	Nil	Garden bed	Adjacent driveway	M	A1
4	<i>Schinus areira</i>	5	5	250	3.0	60%	M	Nil	Grass	Nil	L	Z1
5	<i>Fraxinus ornus</i>	5	5	150	2.0	80%	S	Nil	Grass	Nil	L	Z1
6	<i>Fraxinus ornus</i>	5	5	150	2.0	80%	S	Nil	Grass	Nil	L	Z1
7	<i>Schinus areira</i>	3	3	250	3.0	10%	O	Nil	Grass	Nil	L	ZZ4
8	<i>Eucalyptus tereticornis</i>	12	12	500	6.0	50%	O	Cavity, Decayed base	Grass	Nil	M	ZZ5
9	<i>Eucalyptus tereticornis</i>	18	16	700	8.4	80%	M	Cambium damage, Large scar, Termite infestation	Grass	Nil	H	Z9
10	<i>Fraxinus ornus</i>	7	5	250	3.0	0%	O	Nil	Grass	Adjacent driveway	L	ZZ3
11	<i>Quercus robur</i>	12	12	600	7.2	0%	O	Nil	Garden bed	Nil	M	ZZ4
12	<i>Schinus areira</i>	8	10	450	5.4	50%	O	Failed trunk base, Decayed	Garden bed	Nil	M	ZZ4
13	<i>Schinus areira</i>	8	10	450	5.4	50%	O	Failed trunk base, Decayed	Garden bed	Nil	M	ZZ4
14	<i>Olea europaea</i>	4	4	100	2.0	60%	S	Nil	Garden bed	Nil	L	ZZ3
15	<i>Olea europaea</i>	7	7	300	3.6	60%	O	Borer	Garden bed	Nil	L	ZZ4
16	<i>Eucalyptus tereticornis</i>	20	18	700	8.4	80%	M	Nil	Garden bed	Nil	H	A1
17	<i>Eucalyptus tereticornis</i>	24	20	1000	12.0	80%	M	Nil	Garden bed	Nil	H	AA1
18	<i>Schinus areira</i>	3	4	400	4.8	10%	O	Failed trunk base, Decayed	Garden bed	Nil	L	ZZ5
19	<i>Olea europaea</i>	6	6	250	3.0	80%	M	Nil	Garden bed	Nil	L	Z3
20	<i>Olea europaea</i>	6	6	250	3.0	80%	M	Nil	Garden bed	Nil	L	Z3
21	<i>Eucalyptus crebra</i>	14	12	500	6.0	70%	M	Nil	Garden bed	Nil	M	A1
22	<i>Araucaria cunninghamii</i>	12	3	250	3.0	70%	S	Nil	Garden bed	Nil	L	Z12



Report on trees at 50 Badgally Road, Claymore for Mr T Maiolo  
 Ref: Design Workshop\_NSW\_AIA and MS Rev A – 01/07/2019  
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No.	Genus species	Height	Spread	DBH	TPZ	Foliage %	Age class	Defects/Comment	Location	Services	Significance	Tree AZ
23	<i>Olea europaea</i>	6	6	250	3.0	80%	M	Nil	Garden bed	Nil	L	Z3
24	<i>Araucaria cunninghamii</i>	12	3	300	3.6	70%	S	Nil	Garden bed	Nil	L	Z12
25	<i>Eucalyptus crebra</i>	14	10	400	4.8	70%	M	Nil	Garden bed	Nil	M	A1
26	<i>Eucalyptus sideroxylon</i>	16	12	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
27	<i>Corymbia citriodora</i>	20	18	450	5.4	80%	M	Nil	Garden bed	Nil	H	A1
28	<i>Eucalyptus sideroxylon</i>	14	10	300	3.6	40%	O	Failures	Garden bed	Nil	M	ZZ4
29	<i>Eucalyptus crebra</i>	18	9	400	4.8	40%	O	Failures	Garden bed	Nil	M	ZZ4
30	<i>Eucalyptus crebra</i>	16	9	450	5.4	70%	M	Major failures	Garden bed	Nil	M	ZZ9
31	<i>Olea europaea</i>	6	5	100	2.0	80%	M	Nil	Garden bed	Nil	L	ZZ3
32	<i>Pinus patula</i>	16	10	450	5.4	70%	M	Nil	Garden bed	Nil	M	Z3
33	<i>Olea europaea</i>	6	5	150	2.0	80%	M	Co-dominant	Grass	Nil	L	ZZ3
34	<i>Olea europaea</i>	6	5	150	2.0	80%	M	Co-dominant	Grass	Nil	L	ZZ3
36	<i>Olea europaea</i>	9	9	300	3.6	80%	M	Co-dominant	Garden bed	Nil	M	ZZ3
37	<i>Schinus areira</i>	9	7	300	3.6	60%	O	Failures	Garden bed	Nil	M	Z5
38	<i>Olea europaea</i>	9	9	300	3.6	80%	M	Co-dominant	Garden bed	Nil	M	ZZ3
39	<i>Erythrina sykesii</i>	12	12	500	6.0	70%	M	Co-dominant	Garden bed	Nil	M	Z3
40	<i>Pinus radiata</i>	22	22	700	8.4	70%	M	Nil	Garden bed	Nil	H	Z3
41	<i>Ficus rubiginosa</i>	12	10	450	5.4	80%	M	Nil	Garden bed	Nil	M	A1
42	<i>Ficus rubiginosa</i>	12	10	450	5.4	80%	M	Nil	Garden bed	Nil	M	A1
44	<i>Araucaria cunninghamii</i>	24	22	800	9.6	80%	M	Nil	Garden bed	Nil	H	AA1
45	<i>Ficus rubiginosa</i>	12	12	700	8.4	70%	M	Co-dominant	Garden bed	Nil	M	A1
46	<i>Araucaria bidwillii</i>	20	12	600	7.2	90%	M	Nil	Garden bed	Nil	H	A1
47	<i>Araucaria bidwillii</i>	22	14	1100	13.2	90%	M	Nil	Garden bed	Nil	H	AA1
48	<i>Grevillea robusta</i>	12	9	450	5.4	70%	M	Nil	Garden bed	Nil	M	Z12
49	<i>Olea europaea</i>	6	5	100	2.0	80%	M	Nil	Garden bed	Nil	L	ZZ3
50	<i>Schinus areira</i>	8	9	400	4.8	70%	M	Nil	Garden bed	Nil	M	Z12
51	<i>Cupressus sp.</i>	8	4	250	3.0	50%	O	Dieback	Garden bed	Nil	L	Z4
52	<i>Olea europaea</i>	9	9	200	2.4	80%	M	Co-dominant	Garden bed	Nil	M	ZZ3
53	<i>Olea europaea</i>	9	9	200	2.4	80%	M	Co-dominant	Garden bed	Nil	M	ZZ3
54	<i>Olea europaea</i>	9	9	200	2.4	80%	M	Co-dominant	Garden bed	Nil	M	ZZ3
55	<i>Erythrina sykesii</i>	12	12	500	6.0	70%	M	Co-dominant	Garden bed	Nil	M	Z3
56	<i>Pinus radiata</i>	7	4	500	6.0	0%	O	Borer	Grass	Nil	L	ZZ4
57	<i>Pinus radiata</i>	16	14	500	6.0	0%	O	Nil	Grass	Nil	M	ZZ4

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Report on trees at 50 Badgally Road, Claymore for Mr T Maiolo  
 Ref: Design Workshop\_Claymore NSW\_AIA and MS Rev A – 01/07/2019  
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No.	Genus species	Height	Spread	DBH	TPZ	Foliage %	Age class	Defects/Comment	Location	Services	Significance	Tree AZ
58	<i>Pinus radiata</i>	18	14	600	7.2	70%	M	Nil	Grass	Nil	M	Z3
59	<i>Brachycton acerifolius</i>	12	9	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
60	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
61	<i>Corymbia citriodora</i>	14	7	250	3.0	80%	S	Nil	Garden bed	Nil	M	A1
62	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
63	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
64	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
65	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
66	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
67	<i>Schinus areira</i>	14	12	450	5.4	70%	M	Failures	Garden bed	Nil	M	ZZ9
68	<i>Fraxinus augustifolia</i>	16	16	450	5.4	80%	M	Nil	Garden bed	Nil	M	A1
69	<i>Araucaria bidwillii</i>	26	12	900	10.8	90%	M	Nil	Garden bed	Nil	H	AA1
70	<i>Syagrus romanzoffiana</i>	9	3	250	3.0	80%	M	Group of similar	Garden bed	Nil	L	Z3
71	<i>Dracaena draco</i>	3	3	250	3.0	80%	M	Nil	Garden bed	Nil	L	Z1
72	<i>Cupressus sp.</i>	10	3	300	3.6	50%	O	Dieback	Garden bed	Nil	L	ZZ4
73	<i>Cupressus sp.</i>	8	5	300	3.6	60%	M	Co-dominant	Garden bed	Nil	L	Z12
74	<i>Prunus sp.</i>	5	5	250	3.0	70%	O	Nil	Garden bed	Nil	L	Z1
75	<i>Jacaranda mimosifolia</i>	12	12	600	7.2	70%	M	Too close to building	Sealed surfaces	Adjacent building	M	Z9
76	<i>Schinus areira</i>	12	12	450	5.4	70%	M	Co-dominant	Garden bed	Nil	M	Z12
77	<i>Schinus areira</i>	12	12	450	5.4	70%	M	Co-dominant	Garden bed	Nil	M	Z12
78	<i>Olea europaea</i>	6	5	100	2.0	80%	M	Nil	Garden bed	Nil	L	ZZ3
79	<i>Ulmus parvifolia</i>	12	10	300	3.6	80%	M	Slender habit	Garden bed	Nil	M	Z12
80	<i>Schinus areira</i>	8	10	450	5.4	70%	O	Failed trunk base, Decayed	Grass	Nil	M	ZZ5
81	<i>Quercus robur</i>	14	14	700	8.4	70%	M	Nil	Garden bed	Nil	H	A1
82	<i>Corymbia citriodora</i>	12	7	200	2.4	80%	S	Nil	Garden bed	Nil	L	A1
83	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
84	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1
85	<i>Corymbia citriodora</i>	12	7	200	2.4	80%	S	Nil	Garden bed	Nil	L	A1
87	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Nil	M	A1



Report on trees at 50 Badgally Road, Claymore for Mr T Maiolo  
 Ref: Design Workshop\_NSW\_AIA and MS Rev A – 01/07/2019  
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### Explanatory Notes

- **Measurements/estimates:** All dimensions are estimates unless otherwise indicated. Measurements taken with a tape or clinometer are indicated with a '\*'. Less reliable estimated dimensions are indicated with a '?'.
  - **Species:** The species identification is based on visual observations and the botanical name. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicated with a '?' after the name in order to avoid delay in the production of the report. The botanical name is followed by the abbreviation sp if only the genus is known. The species listed for groups and hedges represent the main component and there may be other minor species not listed.
  - **Tree number:** relates to the reference number used on site diagram/report.
  - **Height:** Height is estimated to the nearest metre.
  - **Spread:** The average crown spread is visually estimated to the nearest metre from the outermost tips of the live lateral branches.
  - **DBH:** These figures relate to 1.4m above ground level and are recorded in millimetres. If appropriate, diameter is measured with a diameter tape. 'M' indicates trees or shrubs with multiple stems.
  - **Foliage Cover:** Percent of estimated live foliage cover for particular species range.
  - **Age class:**

Y	Young = recently planted
S	Semi-mature (<20% of life expectancy)
M	Mature (20-80% of life expectancy)
O	Over-mature (>80% of life expectancy)
  - **TPZ:** The Tree Protection Zone (TPZ) is the radial offset distance of twelve times the trunk diameter in meters.
  - **Tree AZ:** See reference for Tree AZ categories in Appendix 3.
  - **Significance:** A tree's significance/value in the landscape takes into account its prominence from a wide range of perspectives. This includes, but is not limited to neighbour hood perspective, local perspective and site perspective. The significance of the subject trees has been categorized into three groups, such as: High, Moderate or Low significance.



### APPENDIX 3

#### TreeAZ Categories (Version 9.02 A+NZ)

#### Z Category Z: Unimportant trees not worthy of being a material constraint

**Local policy exemptions:** Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species

Z1	Young or insignificant small trees, i.e. below the local size threshold for legal protection, etc
Z2	Too close to a building, i.e. exempt from legal protection because of proximity, etc
Z3	Species that cannot be protected for other reasons, i.e. scheduled noxious weeds, out of character in a setting of acknowledged importance, etc

**High risk of death or failure:** Trees that are likely to be removed within 10 years because of acute health issues or severe structural failure

Z4	Dead, dying, diseased or declining
Z5	Severe damage and/or structural defects where a high risk of failure cannot be satisfactorily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions, etc
Z6	Instability, i.e. poor anchorage, increased exposure, etc

**Excessive nuisance:** Trees that are likely to be removed within 10 years because of unacceptable impact on people

Z7	Excessive, severe and intolerable inconvenience to the extent that a locally recognised court or tribunal would be likely to authorise removal, i.e. dominance, debris, interference, etc
Z8	Excessive, severe and intolerable damage to property to the extent that a locally recognised court or tribunal would be likely to authorise removal, i.e. severe structural damage to surfacing and buildings, etc

**Good management:** Trees that are likely to be removed within 10 years through responsible management of the tree population

Z9	Severe damage and/or structural defects where a high risk of failure can be temporarily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, vulnerable to adverse weather conditions, etc
Z10	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings, poor architectural framework, etc
Z11	Removal would benefit better adjacent trees, i.e. relieve physical interference, suppression, etc
Z12	Unacceptably expensive to retain, i.e. severe defects requiring excessive levels of maintenance, etc

**NOTE:** Z trees with a high risk of death/failure (Z4, Z5 & Z6) or causing severe inconvenience (Z7 & Z8) at the time of assessment and need an urgent risk assessment can be designated as ZZ. ZZ trees are likely to be unsuitable for retention and at the bottom of the categorisation hierarchy. In contrast, although Z trees are not worthy of influencing new designs, urgent removal is not essential and they could be retained in the short term, if appropriate.

#### A Category A: Important trees suitable for retention for more than 10 years and worthy of being a material constraint

A1	No significant defects and could be retained with minimal remedial care
A2	Minor defects that could be addressed by remedial care and/or work to adjacent trees
A3	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years
A4	Trees that may be worthy of legal protection for ecological reasons (Advisory requiring specialist assessment)

**NOTE:** Category A1 trees that are already large and exceptional, or have the potential to become so with minimal maintenance, can be designated as AA at the discretion of the assessor. Although all A and AA trees are sufficiently important to be material constraints, AA trees are at the top of the categorisation hierarchy and should be given the most weight in any selection process.

TreeAZ is designed by Barrell Tree Consultancy ([www.treeaz.com/tree\\_az/](http://www.treeaz.com/tree_az/))

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## APPENDIX 4

### Tree protection fencing and signs - Illustrative specification

**Protective fencing:** Protective 1.8m high fencing should be installed at the location illustrated on the Tree Management Plan before any site works start. All uprights should be fixed in position for the duration of the development activity. The fixings must be able to withstand the pressures of everyday site work.

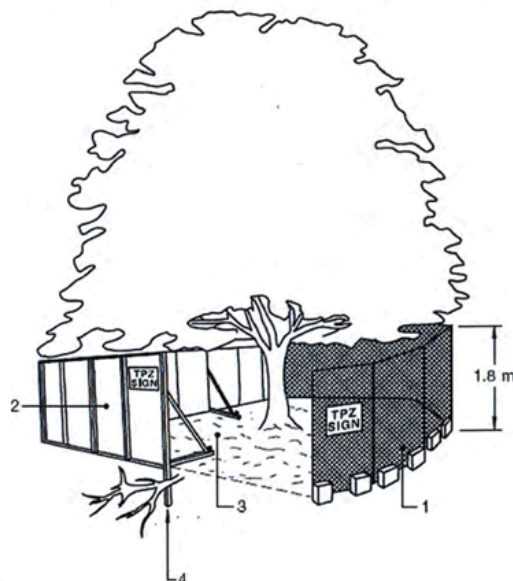
Inside the protective fencing, the following rules must be strictly observed:

- No vehicular access
- No storage of excavated debris, building materials or fuels
- No excessive cultivation for landscape planting
- No fires
- No mixing of cement
- No service installation or excavation

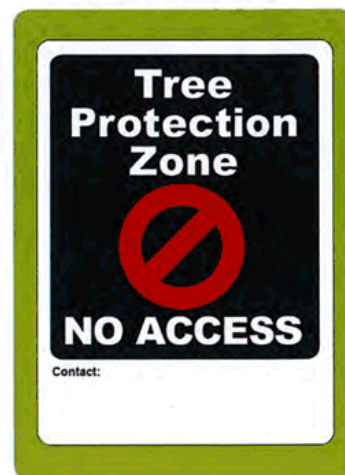
Once erected, protective fencing must not be removed or altered without consulting first with the project Arborist.

Shade cloth or similar should be attached to reduce the transport of dust, other particulate matter and liquids into the protected area and signage must be attached to outside of fencing.

**Signage:** All signs are to provide clear and readily accessible information to indicate that a TPZ has been established. Signage identifying the TPZ must be attached to outside of fencing and be visible from within the development site.



Signage example:



#### Legend

1. Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2. Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3. Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4. Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

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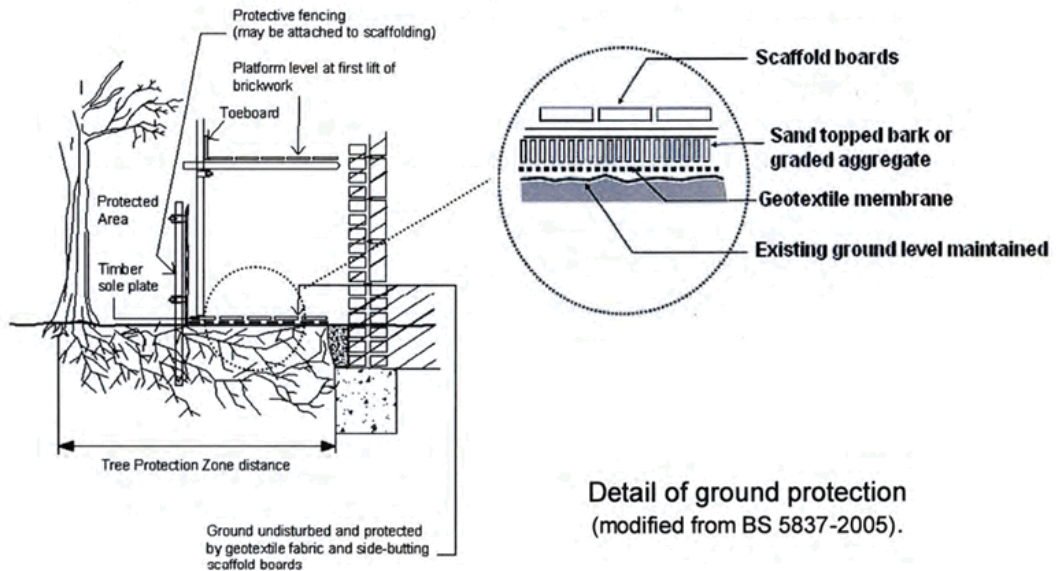
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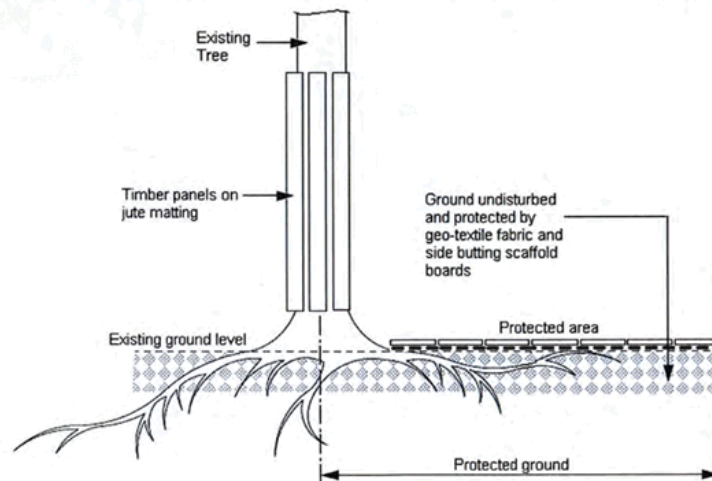
**APPENDIX 5**

**Root zone and trunk protection - Illustrative specification**

**Root zone protection:** Where necessary, access through the TPZ can be achieved by laying aggregate and timber boards (or similar) over the root zone to protect roots. The ground beneath the boarding should be left undisturbed and should be protected with a porous geo-textile fabric covered with sand or mulch.



**Trunk protection:** Where fencing cannot be installed, the vertical trunk of exposed trees shall be protected by the placement of 3.6m lengths of 50 x 100mm hardwood timbers, spaced vertically, at 150mm centres and secured by 2mm wire at 300mm wide spacing over suitable protective padding material e.g. Jute Matting. The trunk protection shall be maintained intact until the completion of all work on site.



Detail of trunk protection.



## APPENDIX 6

### General guidance for working in TPZ

#### 1 PURPOSE OF THIS GUIDANCE

This guidance sets out the general principles that must be followed when working within a TPZ. Where more detail is required, it will be supplemented by illustrative specifications in other appendices in this document (refer Appendix 4 and 5).

This guidance is based on the Australian Standards (2009) AS4970: *Protection of Trees on Construction Sites*.

Once the site works start, this guidance is specifically for the site personnel to help them understand what has been agreed and explain what is required to fully meet their obligations to protect trees. All personnel working in TPZs must be properly briefed about their responsibilities towards important trees based on this guidance.

This guidance should always be read in conjunction with the Tree Management Plan (TMP01) illustrating the areas where specific precautions are necessary. Each area where precautions are required is explained on the plan as identified on the legend. All protective measures should be installed according to the prevailing site conditions and agreed as satisfactory by the Project Arborist before any demolition or construction work starts.

#### 2 TREE PROTECTION

##### 2.1 Tree Protection Zone (TPZ)

The TPZ is a radial setback, extending outwards from the centre of the trunk, where disturbance must be minimised if important trees are to be successfully retained. The TPZ area is illustrated on the Tree Management Plan (TMP01) accompanying this guidance.

- The TPZ is a radial setback extending outwards from the centre of the trunk equal to the DBH x 12.
- This area shall be protected by tree protective fencing (refer Appendix 4).
- Any part of the TPZ outside of the tree protective fencing area must be isolated from the work operations by protective barriers and/or root zone protection for the duration of the work (refer Appendix 5).
- The Project Arborist shall approve the extent of the TPZ prior to commencement of works.
- The TPZ shall be mulched to a depth of 90mm with approved organic mulch e.g. leaf and wood chip where possible.
- Supplementary watering shall be provided in dry periods to reduce water or construction stress, particularly to those trees which may incur minor root disturbance.

The following activities shall be excluded within the TPZ:

- Excavation, compaction or disturbance of the existing soil.
- The movement or storage of materials, waste or fill.
- Soil level changes
- Disposal/runoff of waste materials and chemicals including paint, solvents, cement slurry, fuel, oil and other toxic liquids
- Movement or storage of plant, machinery, equipment or vehicles.
- Any activity likely to damage the trunk, crown or root system.

##### 2.2 Arboricultural supervision

Any work within TPZs requires a high level of care. Qualified arboricultural supervision is essential to minimise the risk of misunderstanding and misinterpretation. Site personnel must be properly briefed before any work starts. Ongoing work must be inspected regularly and, on completion, the work must be signed off by the Project Arborist to confirm compliance by the contractor.



### 2.3 Tree protection fencing, root zone and trunk protection

Prior to site establishment, tree protection fencing and root zone and trunk protection shall be installed to establish the TPZ for trees to be retained in accordance with site conditions. These protective barriers shall be maintained entire for the duration of the construction program (refer Appendix 4 and 5).

Tree protection fencing and trunk and root zone protection shall be removed following completion of construction. The mulch layer in the TPZ shall be retained and replenished where required to maintain a 75mm thickness

### 2.4 Pruning

All pruning work required (including root pruning) should be in accordance with Australian Standard No 4373-1996 - Pruning of Amenity Trees.

### 2.5 Tree Damage

In the event of damage to a tree or the TPZ, the Project Arborist shall be engaged to inspect and provide advice on remedial action. This should be implemented as soon as practicable and certified by the Project Arborist.

### 2.6 Post construction maintenance

In the event of any tree deteriorating in health after the construction period, the Project Arborist shall be engaged to provide advice on any remedial action. Remedial action shall be implemented as soon as practicable and certified by the Project Arborist.

## 3 EXCAVATION AND FILL IN TPZ

### 3.1 Excavation within TPZ

If excavation within the TPZ is required the following shall be applied to preserve tree root systems:

- Excavation within TPZ must be carried out under the instruction and supervision of the Project Arborist.
- A root mapping exercise is to be undertaken and certified by the Project Arborist. Root mapping shall be undertaken by either ground penetrating radar, air spade, water laser or by hand excavation using hand tools, taking care not to damage the bark and wood of any roots.
- The purpose of the root mapping shall be to locate woody structural roots greater than 40mm in diameter. Where possible, flexible clumps of smaller roots, including fibrous roots, should be retained if they can be displaced temporarily or permanently beyond the excavation without damage.
- If digging by hand, a fork shall be used to loosen the soil and help locate any substantial roots.
- Once roots have been located, the trowel shall be used to clear the soil away from them without damaging the bark.
- Exposed roots to be removed shall be cut cleanly with a sharp saw or secateurs.
- Roots temporarily exposed shall be protected from direct sunlight, drying out and extremes of temperature by appropriate covering.

### 3.2 Fill within TPZ

Placement of fill material within the Tree Protection Zone of trees to be retained should be avoided where possible. However, where fill cannot be avoided:

- All fill material to be placed within the TPZ should be approved by Project Arborist and consist of a course, gap-graded material to provide aeration and percolation to the root zone. Materials containing a high percentage of 'fines' is unacceptable for this purpose.
- The fill material should be consolidated with a non-vibrating roller to minimise compaction of the underlying soil.
- No fill material should be placed in direct contact with the trunk.



## 4 DEMOLITION OF SURFACING/STRUCTURES IN TPZ

### 4.1 Definitions of surfacing and structures

For the purposes of this guidance, the following broad definitions apply:

- **Surfacing:** Any hard surfacing used as a vehicular road, parking or pedestrian path including tarmac, solid stone, crushed stone, compacted aggregate, concrete and timber decking.
- **Structures:** Any man-made structure above or below ground including service pipes, walls, gate piers, buildings and foundations. Typically, this would include drainage structures, services, car-ports, bin stores and concrete slabs that support buildings.

### 4.2 Demolition and access

Roots frequently grow adjacent to and beneath existing surfacing/structures so great care is needed during access and demolition. Damage can occur through physical disturbance of roots and/or the compaction of soil around them from the weight of machinery or repeated pedestrian passage. This is not generally a problem whilst surfacing/structures are in place because they spread the load on the soil beneath and further protective measures are not normally necessary. However, once they are removed and the soil below is newly exposed, damage to roots becomes an issue and the following guidance must be implemented:

- No vehicular or repeated pedestrian access into TPZ permitted unless on existing hard surfacing or root zone protection.
- Regular vehicular and pedestrian access routes must be protected from compaction with temporary root zone protection as set out in Appendix 5.
- Where a TPZ is exposed by the work, it must be protected as set out in AS4970 until there is no risk of damage from the development activity.

### 4.3 Removal of surfacing/structures

Removing existing surfacing/structures is a high-risk activity for any adjacent roots and the following guidance must be observed:

- Appropriate tools for manually removing debris may include a pneumatic breaker, crow bar, sledgehammer, pick, mattock, shovel, spade, trowel, fork and wheelbarrow.
- Machines with a long reach may be used if they can work from outside the TPZ or from protected areas within the TPZ.
- Debris to be removed from the TPZ manually must be moved across existing hard surfacing or temporary root zone protection in a way that prevents compaction of soil. Alternatively, it can be lifted out by machines provided this does not disturb the TPZ.
- Great care must be taken throughout these operations not to damage roots.

## 5 INSTALLATION OF SURFACING/STRUCTURES IN TPZ

**5.1 Basic principles:** New surfacing/structures in a TPZ are potentially damaging to trees because they may disturb the soil and disrupt the existing exchange of water and gases in and out of it. Adverse impact on trees can be reduced by minimising the extent of these changes within the TPZ.

- **Surfacing:** Suitable surfacing should be relatively permeable to allow water and gas movement, load spreading to avoid localised compaction and require little or no excavation to limit direct damage. The actual specification of the surfacing is an engineering issue that needs to be considered in the context of the bearing capacity of the soil, the intended loading and the frequency of loading. The detail of product and specification are beyond the scope of this guidance and must be provided separately by the appropriate specialist.
- **Structures:** Where possible structures are to be constructed above ground level on piled supports and redirecting water to where it is needed. The detailed design and specification of such structures is an engineering issue that should be informed and guided by the Project Arborist. Conventional strip foundations in the TPZ for any significant structure may cause excessive root loss and are unlikely to be acceptable. However, disturbance can be significantly reduced by supporting the above ground part of the structures on small diameter piles/piers or





cast floor slabs set above ground level. The design should be sufficiently flexible to allow the piles to be moved if significant roots are encountered in the preferred locations.

## 5.2 Establishing the depth of roots

The precise location and depth of roots within the soil is unpredictable and will only be known when careful digging starts on site. Ideally, all new surfacing within a TPZ should be no-dig, i.e. requiring no excavation whatsoever, but this is rarely possible on undulating surfaces.

New surfacing normally requires an evenly graded sub-base layer, which can be made up to any high points with granular, permeable fills such as crushed stone or sharp sand. This sub-base must not be compacted as would happen in conventional surface installation. Some limited excavation is usually necessary to achieve this and need not be damaging to trees if carried out carefully and large roots are not cut.

Tree roots and grass roots rarely occupy the same soil volume at the top of the soil profile, so the removal of a turf layer up to 50mm is unlikely to be damaging to trees. It may be possible to dig to a greater depth depending on local conditions but this would need to be assessed by the Project Arborist.

## 6 SERVICES IN TPZ

For the purposes of this guidance, services are considered as structures. Excavation to upgrade existing services or to install new services within a TPZ may damage retained trees and should only be chosen as a last resort. In the event that excavation emerges as the preferred option, the decision should be reviewed by the Project Arborist before any work is carried out. If excavation is agreed, all digging should be done carefully and follow the guidance set out in 3.1 above.

## 7 SOFT LANDSCAPING IN TPZ

For the purposes of this guidance, soft landscaping includes the re-profiling of existing soil levels and covering the soil surface with new plants or an organic covering (mulch). It does not include the installation of solid structures or compacted surfacing.

Soft landscaping activity after construction can be extremely damaging to trees.

No significant excavation or cultivation shall occur within the TPZ (e.g. planting holes). Where new designs require levels to be increased to tie in with new structures or surrounding ground level, good quality and relatively permeable top soil should be used for the fill. It should be firmed into place but not over compacted in preparation for turfing or careful shrub planting.

All areas close to tree trunks should be kept at the original ground level and have a mulched finish rather than grass to reduce the risk of mowing damage.



## APPENDIX 7

### Schedule of works and responsibilities

Hold Point	Task	Responsibility	Certification	Timing of Inspection	Compliance Y   N
1	Indicate clearly (with spray paint) trees approved for removal only	Principal Contractor	Project Arborist	Prior to demolition and site establishment	
2	Establishment of tree protection fencing and additional root, trunk and/or branch protection	Principal Contractor	Project Arborist	Prior to demolition and site establishment	
3	Supervise all excavations works proposed within the TPZ	Principal Contractor	Project Arborist	As required prior to the works proceeding adjacent to the tree	
4	Inspection of trees by Project Arborist	Principal Contractor	Project Arborist	Monthly during construction period	
5	Final inspection of trees by Project Arborist	Principal Contractor	Project Arborist	Prior to the issue of Occupation Certificate	

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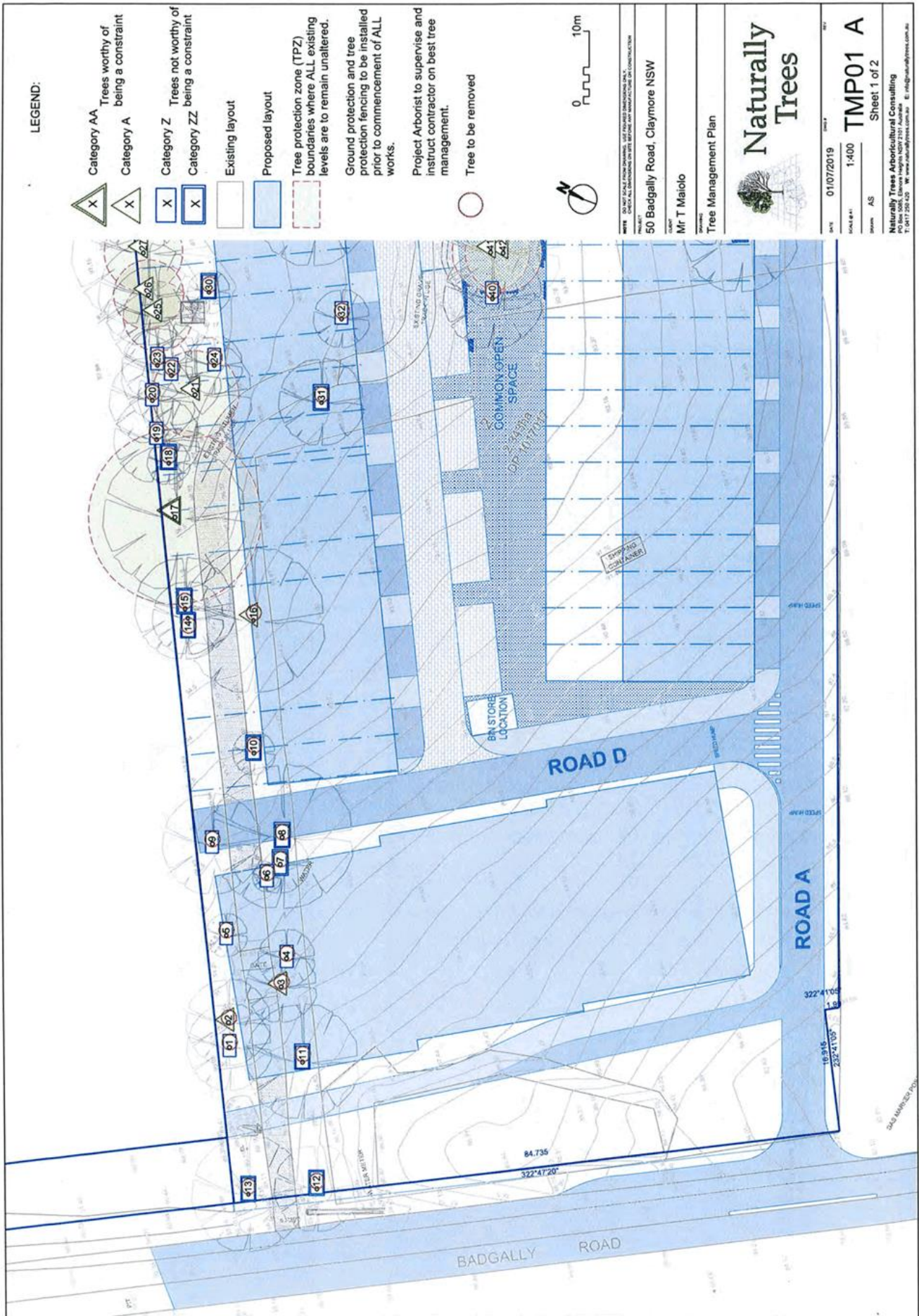
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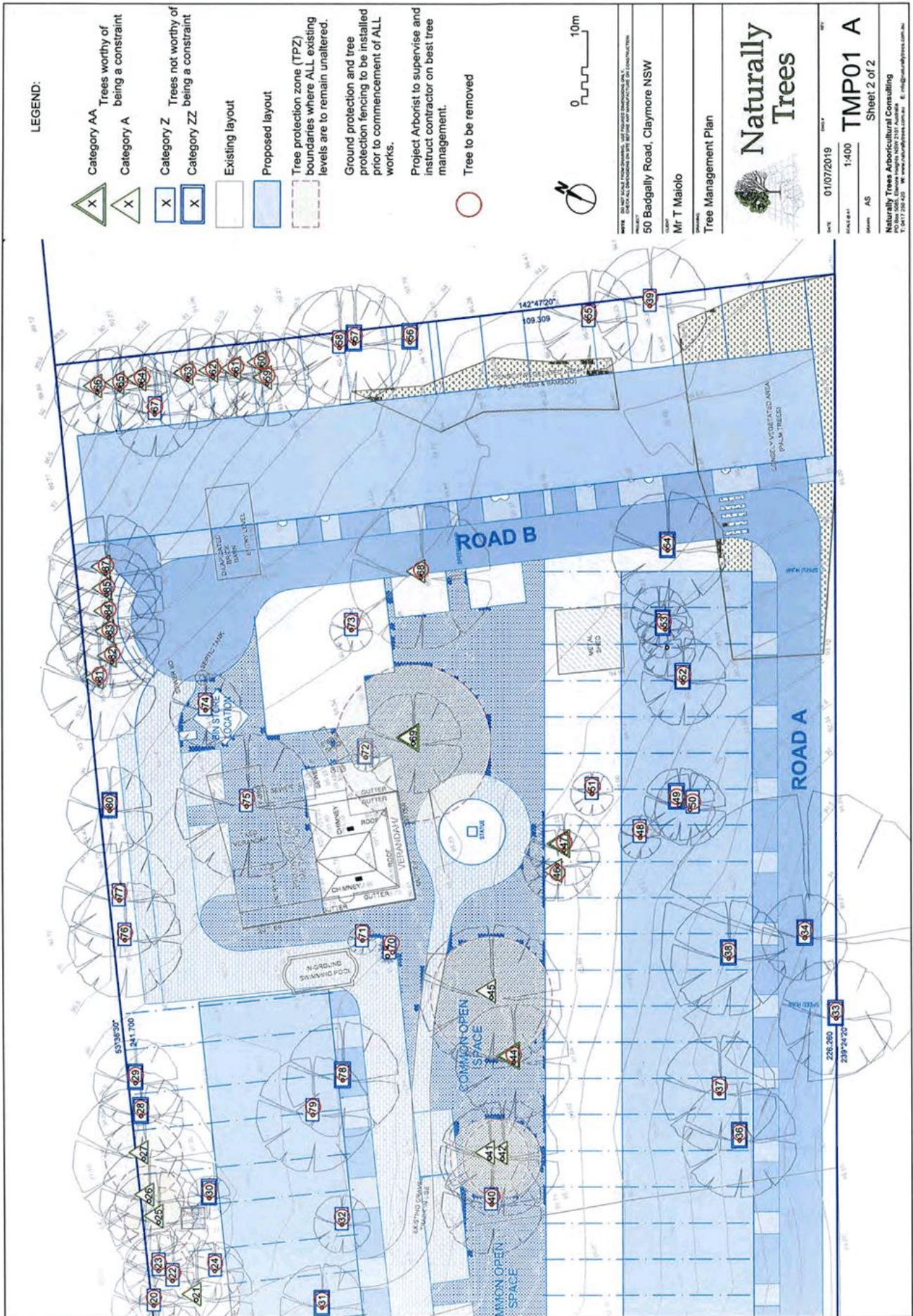
## APPENDIX 8

### Tree management plan

-refer attached Tree Management Plan, Dwg No. TMP01,  
by Naturally Trees dated 1 July 2019











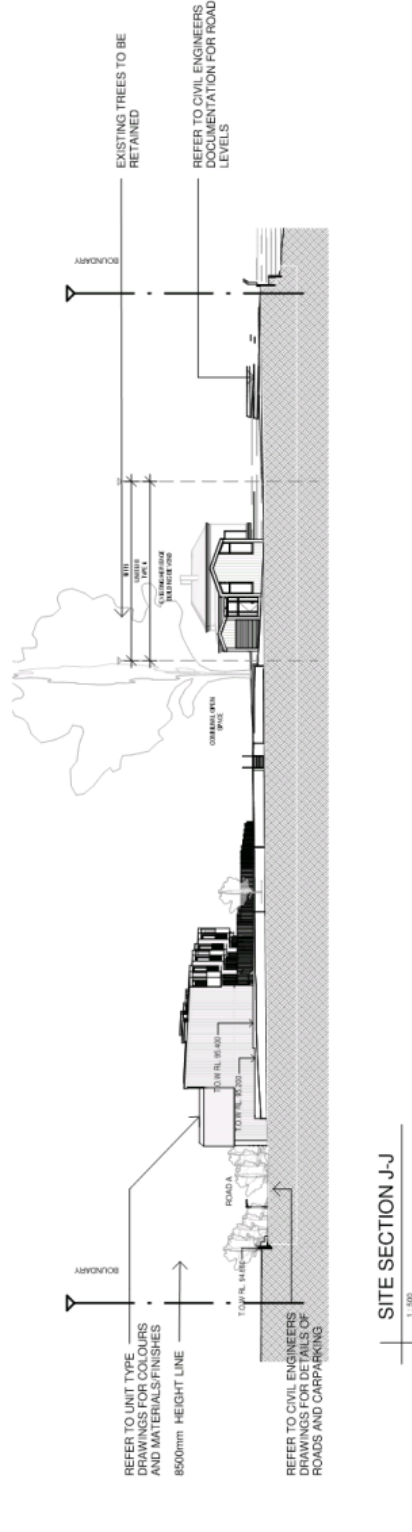
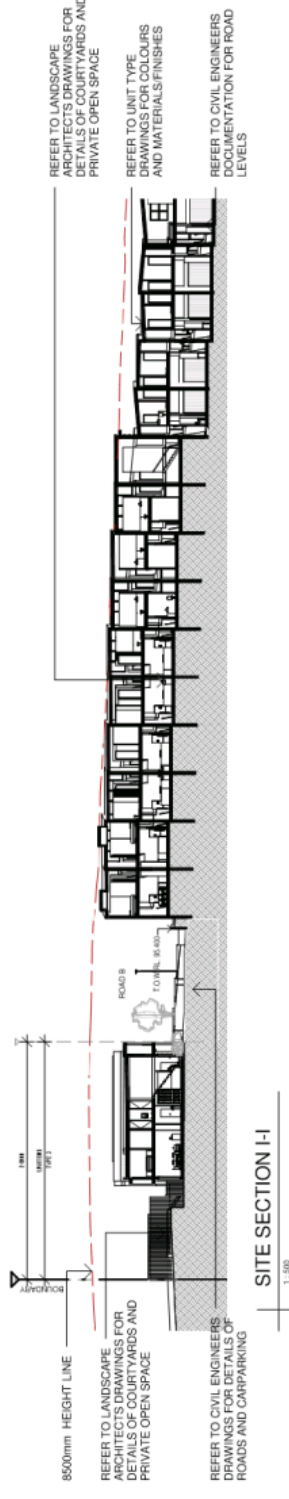
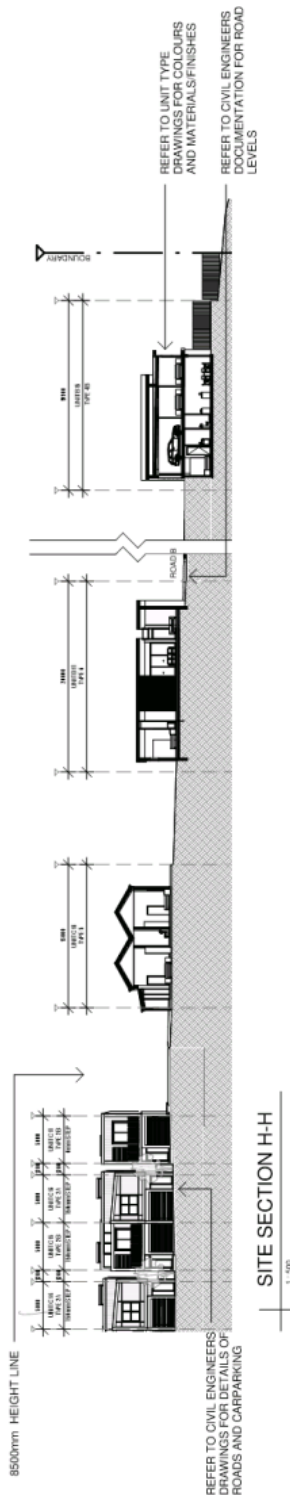












**DISCLAIMER**  
Subject to full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility computed based on information provided by client. All planning and zoning to traffic engineers details.

DATE: 05.07.2019

PROJECT No: 1695

DRAWN: NTJAK\_CS

SCALE: 1:500

Rev: DA-32 HH

CA: RBG

**Legend:**

1	POST	1	THICK FLOORING
2	ROOF	2	THIN FLOORING
3	ROOF	3	THIN FLOORING
4	ROOF	4	THIN FLOORING
5	ROOF	5	THIN FLOORING
6	ROOF	6	THIN FLOORING
7	ROOF	7	THIN FLOORING
8	ROOF	8	THIN FLOORING
9	ROOF	9	THIN FLOORING
10	ROOF	10	THIN FLOORING
11	ROOF	11	THIN FLOORING
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13	ROOF	13	THIN FLOORING
14	ROOF	14	THIN FLOORING
15	ROOF	15	THIN FLOORING
16	ROOF	16	THIN FLOORING
17	ROOF	17	THIN FLOORING
18	ROOF	18	THIN FLOORING
19	ROOF	19	THIN FLOORING
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21	ROOF	21	THIN FLOORING
22	ROOF	22	THIN FLOORING
23	ROOF	23	THIN FLOORING
24	ROOF	24	THIN FLOORING
25	ROOF	25	THIN FLOORING
26	ROOF	26	THIN FLOORING
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28	ROOF	28	THIN FLOORING
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30	ROOF	30	THIN FLOORING
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33	ROOF	33	THIN FLOORING
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97	ROOF	97	THIN FLOORING
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100	ROOF	100	THIN FLOORING

**ADDITIONAL INFORMATION**

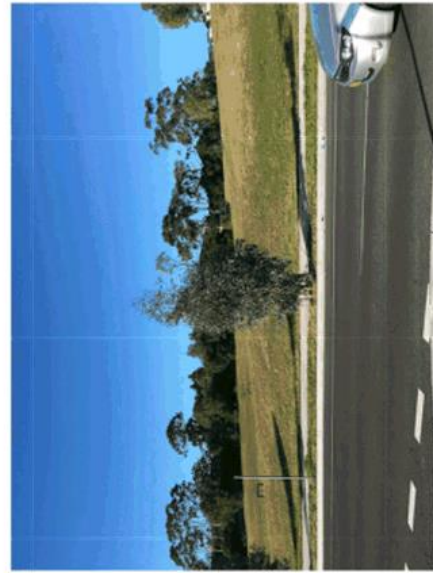
CLIENT:	120 SMITH PTY LTD MED RESIDENTIAL UNIT DEVELOPMENT
ADDRESS:	50 BAGGALLY ROAD, CLAYMORE
DRAWING NAME:	SITE SECTIONS
DATE:	AUG 2018
PROJECT No:	1695
DWG No:	DA-32 HH
SCALE:	1:500
CA:	RBG

Wollongong	Sydney
81a Princes Highway, Wollongong NSW 2519 Tel: (082) 4207 146 Email: info@designworkshop.com.au Web: www.designworkshop.com.au	Level 10, 6 Mount Cyrus Boulevard, North Sydney NSW Tel: (02) 9389 8000 Email: info@designworkshop.com.au Web: www.designworkshop.com.au

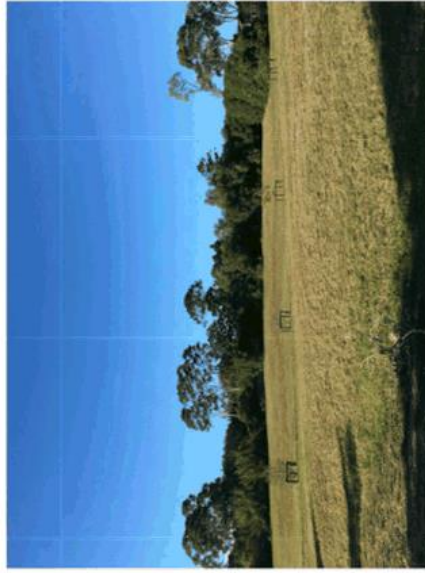
<b>DWA</b>	DESIGN WORKSHOP AUSTRALIA
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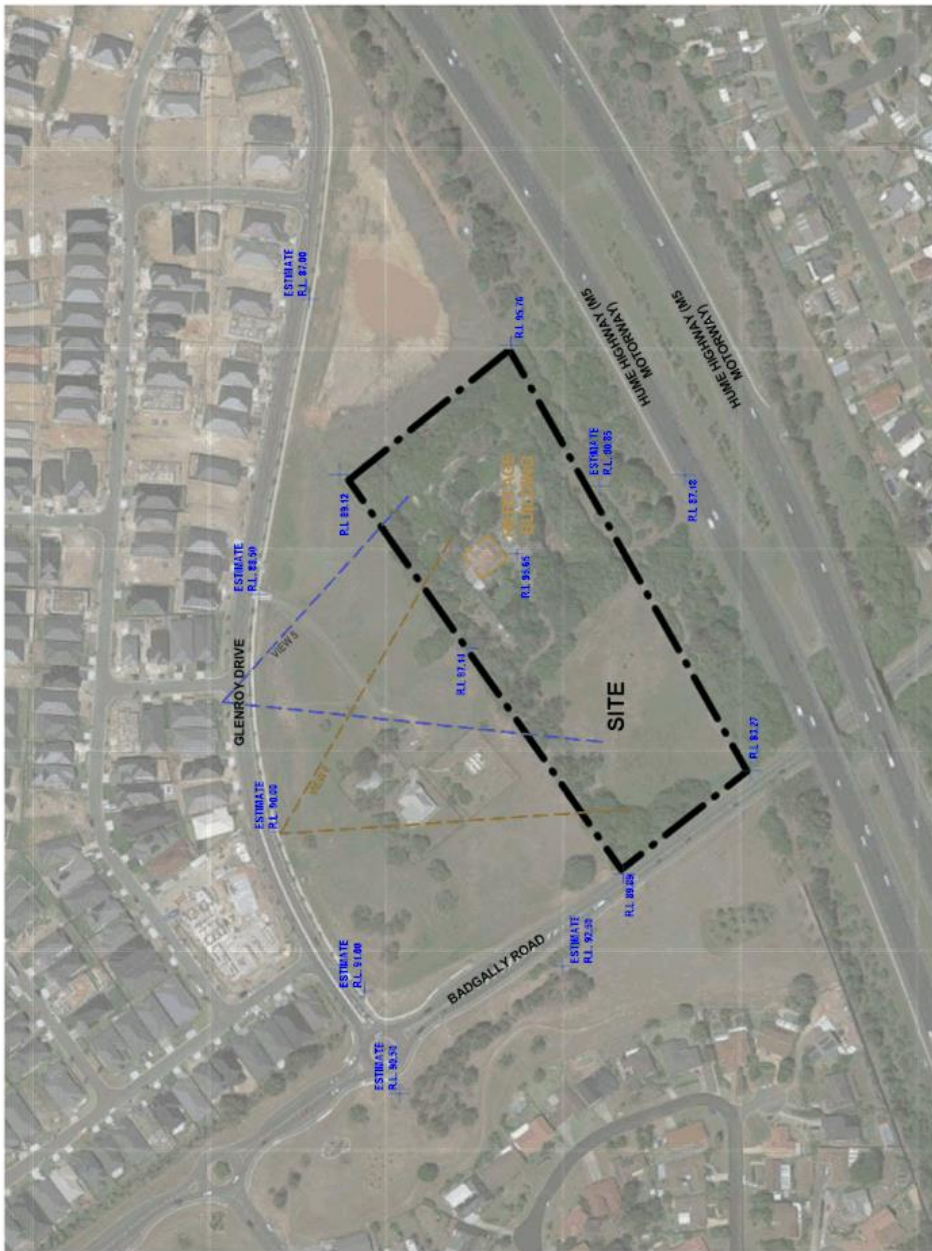




VIEW 5  
FROM MOLVIG STREET



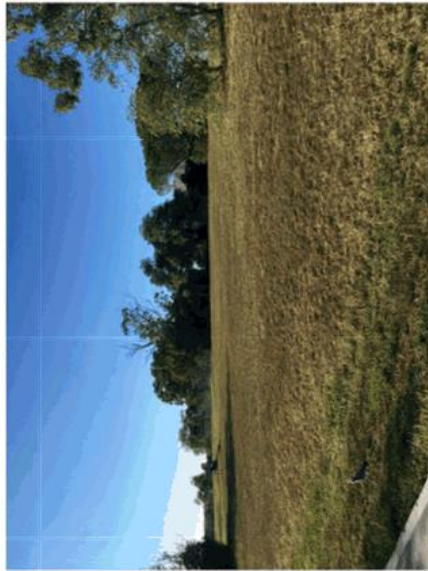
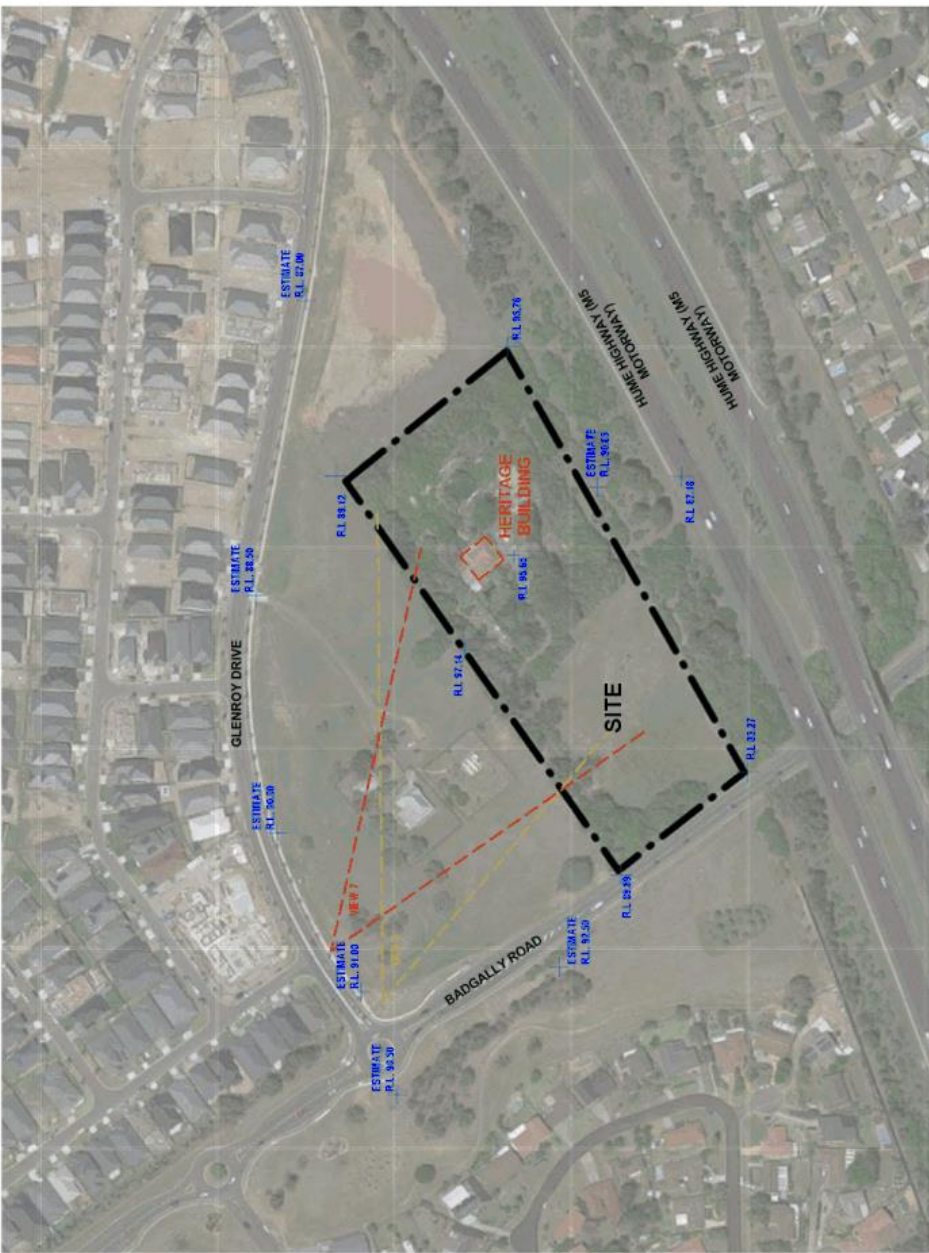
VIEW 6  
FROM GLENROY DRIVE



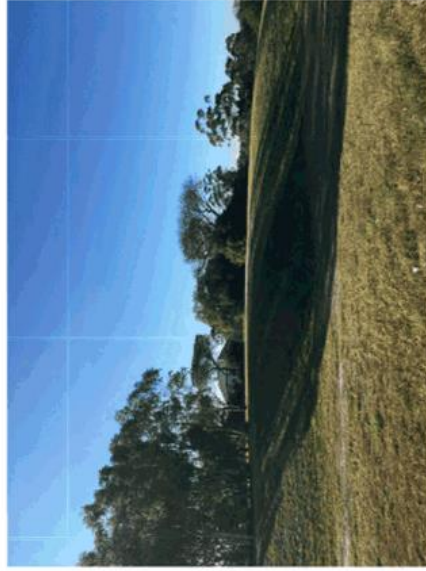
CONTEXTUAL HERITAGE VIEW ANALYSIS

**DISCLAIMER**  
Subject to future survey, measurements are preliminary, decisions and meetings with authorities, approval from authorities revert consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineering standards.

DATE		PROJECT No	
05/07/2019	ADDITIONAL INFORMATION	AUG 2018	1695
DRAWN: NT, CB		DRAWN: NT, CB	
SCALE: NTD		SCALE: NTD	
REV: DA-52		REV: DA-52	
DRAWING NAME: CONTEXTUAL HERITAGE ANALYSIS - EXISTING		DRAWING NAME: CONTEXTUAL HERITAGE ANALYSIS - EXISTING	
SITE PHOTO		SITE PHOTO	
SYDNEY		WOLLONGONG	
Level 10, G Mount Olympus Boulevard Sydney NSW 2005 Phone: 02 9550 2205 Email: info@designworkshop.com.au Robert O'Leary (Reg 8296)		81a Princes Highway, Wollongong NSW 2519 Phone: 02 4227 1601 Email: info@designworkshop.com.au Web: www.designworkshop.com.au	
<b>DWA</b> DESIGN WORKSHOP AUSTRALIA		<b>DWA</b> DESIGN WORKSHOP AUSTRALIA	
<b>Legend:</b> 1. PROPOSED 2. EXISTING 3. EXISTING 4. EXISTING 5. EXISTING 6. EXISTING 7. EXISTING 8. EXISTING 9. EXISTING 10. EXISTING 11. EXISTING 12. EXISTING 13. EXISTING 14. EXISTING 15. EXISTING 16. EXISTING 17. EXISTING 18. EXISTING 19. EXISTING 20. EXISTING 21. EXISTING 22. EXISTING 23. EXISTING 24. EXISTING 25. EXISTING 26. EXISTING 27. EXISTING 28. EXISTING 29. EXISTING 30. EXISTING 31. EXISTING 32. EXISTING 33. EXISTING 34. EXISTING 35. EXISTING 36. EXISTING 37. EXISTING 38. EXISTING 39. EXISTING 40. EXISTING 41. EXISTING 42. EXISTING 43. EXISTING 44. EXISTING 45. EXISTING 46. EXISTING 47. EXISTING 48. EXISTING 49. EXISTING 50. EXISTING 51. EXISTING 52. EXISTING 53. EXISTING 54. EXISTING 55. EXISTING 56. EXISTING 57. EXISTING 58. EXISTING 59. EXISTING 60. EXISTING 61. EXISTING 62. EXISTING 63. EXISTING 64. EXISTING 65. EXISTING 66. EXISTING 67. EXISTING 68. EXISTING 69. EXISTING 70. EXISTING 71. EXISTING 72. EXISTING 73. EXISTING 74. EXISTING 75. EXISTING 76. EXISTING 77. EXISTING 78. EXISTING 79. EXISTING 80. EXISTING 81. EXISTING 82. EXISTING 83. EXISTING 84. EXISTING 85. EXISTING 86. EXISTING 87. EXISTING 88. EXISTING 89. EXISTING 90. EXISTING 91. EXISTING 92. EXISTING 93. EXISTING 94. EXISTING 95. EXISTING 96. EXISTING 97. EXISTING 98. EXISTING 99. EXISTING 100. EXISTING		<b>Legend:</b> 1. PROPOSED 2. EXISTING 3. EXISTING 4. EXISTING 5. EXISTING 6. EXISTING 7. EXISTING 8. EXISTING 9. EXISTING 10. EXISTING 11. EXISTING 12. EXISTING 13. EXISTING 14. EXISTING 15. EXISTING 16. EXISTING 17. EXISTING 18. EXISTING 19. EXISTING 20. EXISTING 21. EXISTING 22. EXISTING 23. EXISTING 24. EXISTING 25. EXISTING 26. EXISTING 27. EXISTING 28. EXISTING 29. EXISTING 30. EXISTING 31. EXISTING 32. EXISTING 33. EXISTING 34. EXISTING 35. EXISTING 36. EXISTING 37. EXISTING 38. EXISTING 39. EXISTING 40. EXISTING 41. EXISTING 42. EXISTING 43. EXISTING 44. EXISTING 45. EXISTING 46. EXISTING 47. EXISTING 48. EXISTING 49. EXISTING 50. EXISTING 51. EXISTING 52. EXISTING 53. EXISTING 54. EXISTING 55. EXISTING 56. EXISTING 57. EXISTING 58. EXISTING 59. EXISTING 60. EXISTING 61. EXISTING 62. EXISTING 63. EXISTING 64. EXISTING 65. EXISTING 66. EXISTING 67. EXISTING 68. EXISTING 69. EXISTING 70. EXISTING 71. EXISTING 72. EXISTING 73. EXISTING 74. EXISTING 75. EXISTING 76. EXISTING 77. EXISTING 78. EXISTING 79. EXISTING 80. EXISTING 81. EXISTING 82. EXISTING 83. EXISTING 84. EXISTING 85. EXISTING 86. EXISTING 87. EXISTING 88. EXISTING 89. EXISTING 90. EXISTING 91. EXISTING 92. EXISTING 93. EXISTING 94. EXISTING 95. EXISTING 96. EXISTING 97. EXISTING 98. EXISTING 99. EXISTING 100. EXISTING	



VIEW 7  
FROM GLENROY DRIVE



VIEW 8  
FROM BADGALLY ROAD

CONTEXTUAL HERITAGE VIEW ANALYSIS

**DISCLAIMER**  
Subject to future survey, measurements are preliminary, decisions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. If a seal is completed based on information provided by client. All markings and limits to traffic signage shall be confirmed by the client.

DATE	REVISION	BY	DESCRIPTION
05/07/2019	1	ADD	ADDITIONAL INFORMATION

**DWA**  
DESIGN WORKSHOP AUSTRALIA

**Wollongong**  
81a Prince Highway,  
Wollongong NSW 2520  
Tel: (02) 4227 1601  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au

**Sydney**  
Level 10, G Mount  
Olympic Boulevard,  
Sydney NSW 1585  
Tel: (02) 9550 1000  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au

**CLIENT:** 120 SMITH PTY LTD  
MED RESIDENTIAL UNIT DEVELOPMENT  
**ADDRESS:** 50 BADGALLY ROAD, CLAYMORE  
**DRAWING NAME:** CONTEXTUAL HERITAGE ANALYSIS - EXISTING  
**BITE PHOTO:**

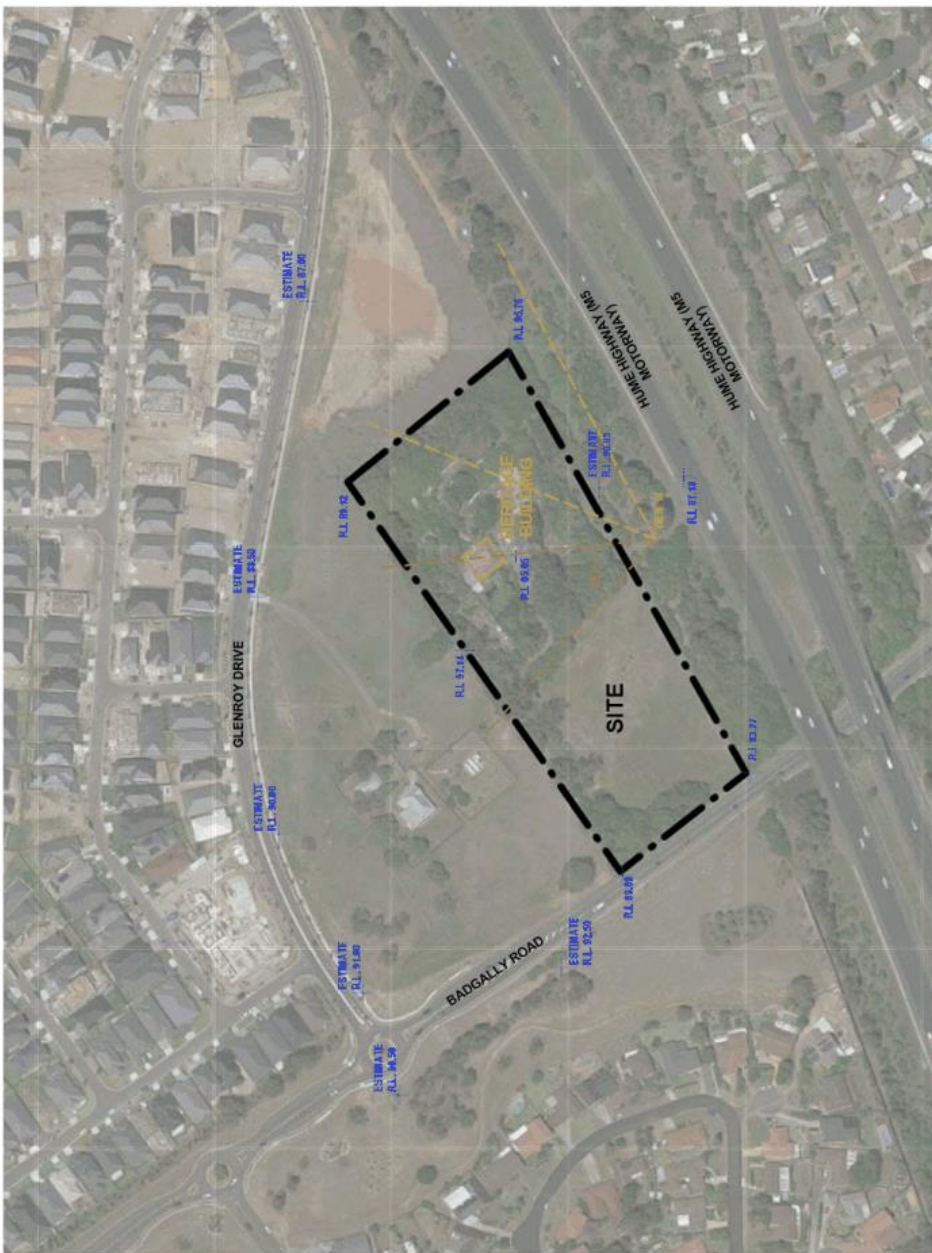
<b>DATE:</b> AUG 2018	<b>PROJECT No:</b> 1695
<b>DRAWN:</b> NT, CB	<b>DWG No.:</b> DA-53
<b>SCALE:</b> NTD	<b>Rev.:</b> HH
<b>QA:</b> RG	

A3









CONTEXTUAL HERITAGE VIEW ANALYSIS



VIEW 13  
FROM HUME MOTORWAY



VIEW 14  
FROM HUME MOTORWAY

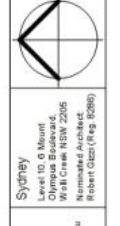
**DISCLAIMER**  
Subject to full site survey, measurements are preliminary, decisions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All bearings and angles to traffic engineering standards.

DATE	REVISION	BY	DESCRIPTION
05/07/2018	1	ADD	ADDITIONAL INFORMATION

SYMBOL	DESCRIPTION
1	EXISTING BUILDINGS
2	EXISTING DRIVEWAYS
3	EXISTING DRIVEWAYS
4	EXISTING DRIVEWAYS
5	EXISTING DRIVEWAYS
6	EXISTING DRIVEWAYS
7	EXISTING DRIVEWAYS
8	EXISTING DRIVEWAYS
9	EXISTING DRIVEWAYS
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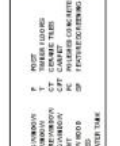
ADDITIONAL INFORMATION

CLIENT:	120 SMITH PTY LTD MED RESIDENTIAL UNIT DEVELOPMENT 50 BAGGALLY ROAD, CLAYMORE
DATE:	AUG 2018
PROJECT No:	1695
DRAWN: NT, CB	
SCALE: NTD	
QA: RG	
DWG No.:	DA-56
Rev.:	HH
DRAWING NAME:	CONTEXTUAL HERITAGE ANALYSIS - EXISTING SITE PHOTOS



**Sydney**  
Level 10, G Mount  
Olympic Boulevard  
Sydney NSW 1585  
Phone: 02 9550 1000  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au

**Wollongong**  
81a Princes Highway,  
Wollongong NSW 2519  
Phone: 02 4227 1000  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au



DATE	05/07/2018
REVISION	1
BY	ADD
DESCRIPTION	ADDITIONAL INFORMATION





STREET VIEW 1

STREET VIEW 2

STREET VIEW 3

STREET VIEW 4

**DISCLAIMER**  
 Subject to full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities.  
 relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.  
 All parking and ramps to traffic engineers details.

DATE: 05.07.2019

**LEGEND:**  
 BRICK: BRICKWORK  
 CLAD: CLADDING  
 CORR: CORRUGATED METAL  
 CONCR: CONCRETE  
 GLASS: GLASS  
 GRASS: GRASS  
 HATCH: HATCH  
 IRON: IRON  
 MTL: METAL  
 PAINT: PAINT  
 PLASTER: PLASTER  
 ROOF: ROOF  
 STAIN: STAIN  
 TILES: TILES  
 WOOD: WOOD  
 ZONE: ZONE

**ADDITIONAL INFORMATION**  
 DATE: 05.07.2019  
 DRAWN: NT/AK/CS  
 SCALE: 1:100  
 CHECK: RBG  
 PROJECT NO: 1695  
 DWG NO: DA-60  
 REV: HH

**WOLLONGONG**  
 81a Princes Highway,  
 Wollongong NSW 2519  
 Tel: (02) 4327 1646  
 Email: info@designworkshop.com.au  
 Web: www.designworkshop.com.au

**DWA**  
 DESIGN WORKSHOP AUSTRALIA

**SYDNEY**  
 Level 10, 6 Mount  
 Olympus Boulevard,  
 North Sydney NSW 1585  
 Tel: (02) 9389 9000  
 Email: info@designworkshop.com.au  
 Web: www.designworkshop.com.au

**CLIENT:**  
 120 SMITH PTY LTD  
 MED RESIDENTIAL UNIT DEVELOPMENT  
 50 BAGGALLY ROAD, CLAYMORE

**DRAWING NAME:** 3D STREET PERSPECTIVES





DEVELOPMENT VIEW 1

**DISCLAIMER**  
 Subject to full site survey, measurements are preliminary, discussions and meetings with authorities, approvals from authorities.  
 revert consultant information as per council DA requirements. Feasibility completed based on information provided by client.  
 All parking and ramps to traffic engineers details.

HH	05.07.2019	ADDITIONAL INFORMATION
<p><b>DISCLAIMER</b>                  All drawings are preliminary, subject to full site survey and discussions with authorities, approvals from authorities.                  revert consultant information as per council DA requirements. Feasibility completed based on information provided by client.                  All parking and ramps to traffic engineers details.</p>		

**Legend:**

1	CONCRETE	1	POST
2	ROOF	2	TERRAZZO
3	GLASS	3	WALL
4	WOOD	4	WALL
5	CONCRETE	5	WALL
6	CONCRETE	6	WALL
7	CONCRETE	7	WALL
8	CONCRETE	8	WALL
9	CONCRETE	9	WALL
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1	CONCRETE	1	POST
2	ROOF	2	TERRAZZO
3	GLASS	3	WALL
4	WOOD	4	WALL
5	CONCRETE	5	WALL
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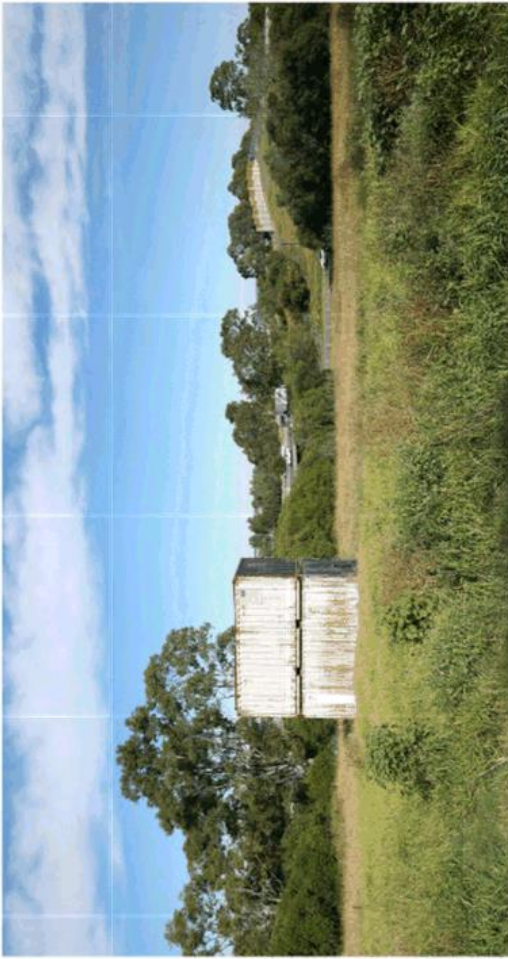








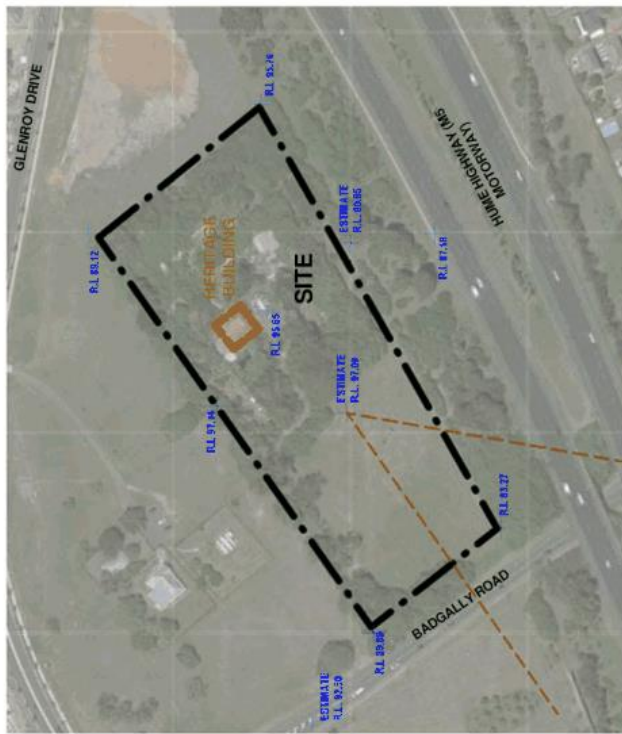




HERITAGE BUILDING VIEW ANALYSIS - EXISTING VIEW FROM HERITAGE BUILDING



HERITAGE BUILDING VIEW ANALYSIS - APPROX. PROPOSED VIEW FROM HERITAGE BUILDING



HERITAGE BUILDING VIEW ANALYSIS - VIEW FROM HERITAGE BUILDING

N/S

**DISCLAIMER**  
 Subject to full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers' control.

DATE: 05.07.2019

PROJECT No. 1695

DRAWN: NT, CS

SCALE: 1:11

REV: DA-67

HH

CLIENT: 120 SMITH PTY LTD

120 SMITH PTY LTD

MED RESIDENTIAL UNIT DEVELOPMENT

50 BAGGALLY ROAD, CLAYMORE

ADDRESS:

DRAWING NAME: HERITAGE BUILDINGS VIEW ANALYSIS

SYDNEY

Level 10, Clarendon

Clarendon Boulevard

Northmead, NSW 2151

NSW Registered Architect

Robert Gutz (Reg. 82396)

WOLLONGONG

81a Prince Highway,

Wollongong NSW 2519

Phone: 081 4507 1666

Email: info@designworkshop.com.au

Web: www.designworkshop.com.au

POST

TRUSS FLOOR

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Legend:

ADDITIONAL INFORMATION

HERITAGE BUILDINGS

HERITAGE BUILDINGS

HERITAGE BUILDINGS

HERITAGE BUILDINGS



Transport  
Roads & Maritime  
Services

27 March 2019

Our Reference: SYD19/00306/01 (A26707325)  
Council Ref: DA 4457/2018/DA-M

The General Manager  
Campbelltown City Council  
P.O. Box 57  
CAMPBELLTOWN, NSW, 2560

Attention: Melissa Stilloni

Dear Ms Deitz

**Land use application for 75 unit multi dwelling development at  
“Hillcrest” No.50 Badgally Road, CLAYMORE**

Reference is made to Council's correspondence dated 18 February 2019, regarding the abovementioned application which was referred to Roads and Maritime Services (Roads and Maritime) for comment in accordance with Clause 102 of the *State Environmental Planning Policy (Infrastructure) 2007* as the subject land adjoins the Hume Motorway.

Roads and Maritime has reviewed the submitted application and raises no objection to the proposed land use application. Roads and Maritime however requests that the following conditions are incorporated into any consent issued by Council in order to promote the orderly, safe and efficient operation of the Hume Motorway:

1. The developer is to submit design drawings and documents relating to any excavation of the site and support structures to Roads and Maritime for assessment, in accordance with Technical Direction GTD2012/001.

The developer is to submit all documentation at least six (6) weeks prior to commencement of construction and is to meet the full cost of the assessment by Roads and Maritime. Documents should be submitted to [Development.Sydney@rms.nsw.gov.au](mailto:Development.Sydney@rms.nsw.gov.au)

If it is necessary to excavate below the level of the base of the footings of the adjoining roadways, the person acting on the consent shall ensure that the owner/s of the roadway is/are given at least seven (7) day notice of the intention to excavate below the base of the footings. The notice is to include complete details of the work.

2. Detailed design plans and hydraulic calculations of any changes, potentially impacting the classified road reserve, to the stormwater drainage system are to be submitted to Roads and Maritime for approval, prior to the commencement of any works. Documents should be submitted to [Development.Sydney@rms.nsw.gov.au](mailto:Development.Sydney@rms.nsw.gov.au)

**Roads and Maritime Services**

27-31 Argyle Street, Parramatta NSW 2150 |  
PO Box 973 Parramatta NSW 2150 |

[www.rms.nsw.gov.au](http://www.rms.nsw.gov.au) | 13 22 13

A plan checking fee will be payable and a performance bond is required before Roads and Maritime approval is issued.

3. A Road Occupancy Licence (ROL) should be obtained from Transport Management Centre for any works that may impact on traffic flows on the Hume Motorway during construction activities. A ROL can be obtained through <https://myrta.com/oplinc2/pages/security/oplincLogin.jsf>
4. The proposed development should be designed such that road traffic noise from Hume Motorway (M31) is mitigated by durable materials in order to satisfy the requirements for habitable rooms under Clause 102 (3) of State Environmental Planning Policy (Infrastructure) 2007. Any noise walls/barriers, or the like, will not be permitted within the classified road reserve corridor and should be, if required, accommodated wholly within the land subject of the development application.
5. All buildings and structures, together with any improvements integral to the future use of the site are wholly within the freehold property (unlimited in height or depth), along the Hume Motorway boundary.
6. The subject property abuts a Declared Freeway (Hume Motorway) as shown by blue colour and green hatching on attached Aerial — "X". Access is denied across this boundary.

If you have any further inquiries in relation to this development application Chris King would be pleased to take your call on 8849 2087 or e: [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au)

Yours sincerely

**Pahee Rathan**  
**Senior Land Use Assessment Coordinator**  
**North West Precinct**





# STATEMENT OF HERITAGE IMPACT

**Hillcrest, 50 Badgally Road  
Claymore**



Job No. 8229  
December 2018

**Heritage 21**  
CULTURAL BUILT HERITAGE IN THE 21ST CENTURY

RAPPOPORT PTY LTD ©  
CONSERVATION ARCHITECTS AND HERITAGE CONSULTANTS  
Suite 48, 20-28 Maddox Street, Alexandria, NSW 2015  
(02) 9519 2521  
reception@Heritage 21.com.au

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Heritage Impact Statements	Conservation Management Plans	On-site Conservation Architects
Photographic Archival Recordings	Interpretation Strategies	Expert Heritage Advice
Fabric Analyses	Heritage Approvals & Reports	Schedules of Conservation Work

## Statement of Heritage Impact • 50 Badgally Road, Claymore

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**


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Cover page: Subject site at 50 Badgally Road, Claymore (Source: Heritage 21, 20.08.2018)

### **Acknowledgement of Country**

Heritage 21 wishes to acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and community. We pay our respects to them and their cultures; and to elders both past and present.

### **Copyright**

Heritage 21 holds copyright for this report. Any reference to or copying of the report or information contained in it must be referenced and acknowledged, stating the report's name, date and Heritage 21's authorship.

The following table forms part of the quality management control undertaken by Heritage 21 regarding the monitoring of its intellectual property as issued.

<b>Issue</b>	<b>Description</b>	<b>Date</b>	<b>Written by</b>	<b>Reviewed by</b>	<b>Issued by</b>
1	Draft report (D1) issued for comment.	05.12.18	SB	PR	SB
2	Report for Issue (RI)	07.12.2018	SB	-	SB

## Statement of Heritage Impact • 50 Badgally Road, Claymore

## 1.0 INTRODUCTION

### 1.1 Background

This Statement of Heritage Impact ('SOHI' or 'report') has been prepared on behalf of Design Workshop Australia, representing the property owner, in the context of the proposed works at the property.

### 1.2 Site Identification

The subject site is located at 50 Badgally Road, which falls within the boundaries of Campbelltown City Council Local Government Area. The site comprises Lot 2/ DP1017017 and features an entryway from Badgally Road towards the locally-listed heritage item, "Hillcrest". It is located to the south of the intersection of Badgally and Dobell Roads, and adjacent to the Hume Motorway overpass, as depicted in Figure 1 below.



**Figure 1.** Aerial view of locality with approximate boundaries of the subject site outlined in red (Source: NSW Land and Property Information, 'SIX Maps', n.d., <http://maps.six.nsw.gov.au/>).

### 1.3 Heritage Context

#### 1.3.1 Heritage Listings

The site **is listed** as an item of environmental heritage in Schedule 5 of the *Campbelltown Local Environmental Plan 2013*. The site **is listed** as an item of environmental heritage on the National Trust.

#### 1.3.2 Heritage Conservation Area

As depicted in Figure 2, the site is not located within a Heritage Conservation Area ('HCA').

#### 1.3.3 Heritage items in the vicinity of subject site

The subject site is located adjacent to and within the visual catchment area of the following item of environmental heritage as listed in the CLEP:

## Statement of Heritage Impact • 50 Badgally Road, Claymore

Listed Site/HCA	Address	Significance	Item
Glenroy Cottage	2 Dobell Road	Local	I44

Figure 2 below illustrates the location of the subject site in relation to the other heritage item located in the vicinity.



**Figure 2.** Heritage map HER\_008 showing the location of subject site highlighted by blue arrow, heritage items in the vicinity in brown. (source: NSW Legislation Online, legislation.nsw.gov.au)

### 1.3.4 Significant view lines

The site is partially visible from Badgally Road, to the west of the residential dwelling. This view line includes the large vacant lot that borders the roadway. The heritage-listed dwelling known as “Hillcrest” is currently not visible from Badgally Road due to the heavy vegetation that surrounds the built form. Further, due to this heavy vegetation and fencing to the north-east boundary, the visual relationship between the dwelling and the adjacent heritage-listed property is currently non-existent. However, the adjacent heritage listed item is partially visible from the driveway. An analysis of these shared view lines is conducted in **Section 3.0** of this report.

### 1.4 Purpose

The subject site is a heritage item which are listed under Schedule 5 of the CLEP. Sections 5.10(4) and 5.10(5) of the CLEP require the Campbelltown City Council to assess the potential heritage impact of non-exempt development, such as the proposed development (refer to **Section 6.0**), on the heritage significance of the abovementioned heritage item and, also, to assess the extent (whether negative, neutral or positive) to which the proposal would impact the heritage significance of that heritage item and the adjacent heritage item. This assessment is carried out in Section 7.2 below.

Accordingly, this SOHI provides the necessary information for Council to make an assessment of the proposal on heritage grounds.

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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**1.5 Methodology**

The methodology used in this SOHI is consistent with *Statements of Heritage Impact and Assessing Heritage Significance* and *Heritage Curtilages* published by the Heritage Division of the NSW Office of Environment and Heritage and has been prepared in accordance with the principles contained in the most recent edition of *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*.

**1.6 Authors**

This Statement of Heritage Impact ('SOHI' or 'report') has been prepared by Sophie Barbera and overseen by Paul Rappoport of Heritage 21, Heritage Consultants.

**1.7 Limitations**

- This SOHI is based upon an assessment of the heritage issues only and does not purport to have reviewed or in any way endorsed decisions or proposals of a planning or compliance nature. It is assumed that compliance with non-heritage aspects of Council's planning instruments, the BCA and any issues related to services, contamination, structural integrity, legal matters or any other non-heritage matter is assessed by others.
- This report essentially relies on secondary sources. Primary research has not necessarily been included in this report, other than the general assessment of the physical evidence on site.
- It is beyond the scope of this report to address Indigenous associations with the subject site.
- It is beyond the scope of this report to locate or assess potential or known archaeological sub-surface deposits on the subject site or elsewhere.
- It is beyond the scope of this report to assess items of movable heritage.
- Heritage 21 has only assessed aspects of the subject site that were visually apparent and not blocked or closed or to which access was not given or was barred, obstructed or unsafe on the day of the arranged inspection.

## Statement of Heritage Impact • 50 Badgally Road, Claymore

## 2.0 HISTORICAL CONTEXT

### 2.1 Aboriginal Occupation

The following has been extracted from Campbelltown City Council's 'Campbelltown's Aboriginal History' (unless otherwise stated):<sup>1</sup>

*Prior to colonisation, it is estimated there were between 500 and 700 different clans / nations of Aboriginal and / or Torres Strait Islander peoples, each with their own unique languages and cultures. In what is now known as the Macarthur region, the Dharawal people continue to be acknowledged as the Traditional Custodians. Dharawal people cared for and inhabited land from Botany Bay to the Shoalhaven River and Nowra and inland to Camden. A traditional totem of the area is recognised as the lyrebird. Dharawal people were able to move from area to area in safety and to maintain resources for many of thousands of years before colonisation. They moved between the areas now known as Campbelltown, Liverpool, Camden and Picton, and occasionally as far as Parramatta.*

### 2.2 Claymore

The following has been extracted from Campbelltown City Council website:<sup>2</sup>

*The area now known as Claymore was originally home to the Tharawal people. British settlers began moving into the area in the early 19th century, establishing farms and orchards. By the 1970s, the expansion of Sydney was great enough for developers to look at the area around Campbelltown. The Housing Commission of New South Wales undertook a large public housing development in the Claymore area. Originally the suburb was to be called Badgally after a local homestead, but the council backed off over concerns that the "Bad" part of the name could give the area a "bad" name. They chose Claymore after another local property, although that was also contentious since the name had very little history in the area. The first residents moved in during 1978*



Figure 3. Map of Campbelltown, n.d. (Source: Heritage 21 internal documentation)

<sup>1</sup> 'Campbelltown's Aboriginal History'. Campbelltown City Council. Retrieved from: [www.campbelltown.nsw.gov.au](http://www.campbelltown.nsw.gov.au)

<sup>2</sup> 'History of Claymore'. Campbelltown City Council. retrieved from: <https://www.campbelltown.nsw.gov.au/AboutCampbelltown/History/Historyofoursuburbs/HistoryofClaymore>

## Statement of Heritage Impact • 50 Badgally Road, Claymore

## 2.3 Subject Site

### 2.3.1 Early Land Grants

The subject site resides upon land granted to John Warby in 1816. The following has been extracted from The Australian Dictionary:<sup>3</sup>

*John Warby (1774? -1851), convict and explorer, was convicted at Hertford, England, on 3 March 1791 and sentenced to transportation for seven years. He reached Sydney in February 1792 in the Pitt. At Parramatta on 12 September 1796 he married Sarah Bentley (1780-1869), a convict who had arrived in the Indispensable in April 1796; they had nine sons and five daughters.*

*After his sentence expired Warby acquired fifty acres (20 ha) at Prospect and in 1803 was appointed stockman of the wild cattle at large in the Cowpastures. It was along Warby's track leading from his home through the Cowpastures that James Meehan made a line of road in 1805. In 1806 Warby was a constable of Camden County, and he was one of those who signed a respectful address to Governor William Bligh on 1 January 1808. He guided Governor Lachlan Macquarie and his party from Prospect Hill through the Cowpastures in November 1810 and again in October 1815 on an expedition into the rough country along the Nattai River. He was one of the first to explore the Oaks, the Bargo area and the Burragorang Valley, and continued to be in demand as a guide. Thus in 1814 he was among those rewarded for visiting Aboriginal tribes in the inland area and for arresting Patrick Collins, a bushranger, and in 1816 for guiding soldiers who were pursuing Aboriginal tribes.*

*In June 1816 he was granted 260 acres (105 ha) at Campbelltown and there built a house where he died on 12 June 1851. His widow died at Campbelltown on 19 October 1869.*

### 2.3.2 Hillcrest and the Woodhouse family

The following has been extracted from the NSW Heritage Inventory:<sup>4</sup>

*In 1884 "Hillcrest" was recorded as a house on 10 acres of land in the ownership of M.D. Woodhouse, valued at £55 per year. In 1886 "Hillcrest" was recorded as 10 acres of land in the ownership of M.D. Woodhouse, valued at £45 per year. In 1888 "Hillcrest" was recorded as a residence and 10 acres of land in the ownership of M.D. Woodhouse, valued at £45 per year. In 1890 and 1891 "Hillcrest" was owned by Woodhouse and valued at £110 per year.*

<sup>3</sup> Warby, John (1774–1851), Australian Dictionary of Biography, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/warby-john-2772/text3939>, published first in hardcopy 1967, accessed online 19 November 2018.

<sup>4</sup> Hillcrest. NSW Heritage Inventory. <https://www.environment.nsw.gov.au/>



## Statement of Heritage Impact • 50 Badgally Road, Claymore



**Figure 4.** Hillcrest during the 1970s. front façade to the left of frame. Note the circular driveway has since disappeared (Source: 009/009442. Campbelltown City Council. Mote. J. Retrieved from: [pictures.campbelltown.nsw.gov.au](http://pictures.campbelltown.nsw.gov.au))

*Schuldham Hume Woodhouse (1870-1896) was the youngest son of Edmund Hume Woodhouse of Mt Gilead. The name Schuldham derives from "Schuldham Farm" (later known as "Glen Lorne") which was occupied by the Woodhouse family in 1813. In 1891 Schuldham Hume Woodhouse married Violet Charlotte Dinneny who was born in Ballarat. They had two daughters, Daphne (later Mrs Kelverton Cuthell) and Iris. In 1895 Schuldham Hume Woodhouse of "Hillcrest" was recorded as a meteorological observer and he died in 1896 at 26. Mrs Woodhouse inherited "Hillcrest" from her husband and is listed as the owner in the 1897-1898 Campbelltown rate book, and the property was valued at £100 per year.*



**Figure 5.** "Hillcrest" during the 1970s. (Source: 009/009441. Campbelltown City Council. Mote J. Retrieved from: [pictures.campbelltown.nsw.gov.au](http://pictures.campbelltown.nsw.gov.au))

*"Hillcrest" was extant by 1884 and may have been built earlier. It appears to have been renovated for Schuldham Woodhouse's occupation, possibly by local architect Alfred Rose Payten. Certainly, the stables were added to for Woodhouse by Payten in 1891 and the annual value doubled between 1888 and 1890.*

## Statement of Heritage Impact • 50 Badgally Road, Claymore



**Figure 6.** Estate Clearance Sale following the death of Iris Woodhouse. (Source: The Sydney Morning Herald, Sydney, New South Wales, Australia, Sunday, January 27, 1974, pg.76)

In about 1911 Mrs Violet Woodhouse remarried, to John George Vardy and the 1911 Campbelltown rate book records a change of name for Mrs Woodhouse to Mrs V.C. Vardy, At this time "Hillcrest" was 31 acres, parts lots 133 and 134. John Vardy worked at the Sydney GPO, purchasing a yearly train ticket to Sydney every year until his death in 1937. Mrs Vardy had died in 1934 and by 1938 the property was 28 acres and was part of the estate of the late Mrs V.C. Vardy, C/o Miss Iris Woodhouse, who was living at "Hillcrest".



**Figure 7.** Sales advertisement for "Hillcrest", 1983. (Source: The Sydney Morning Herald, Sydney, New South Wales, Australia, Tuesday, January 25, 1983, pg. 61)

Iris Woodhouse was the last direct descendent of the Woodhouses of "Mt Gilead", when she died in 1972. Her nephew, Charles Gilbert, inherited both "Hillcrest" and "The Engadine" after her death. In about 1977, "Hillcrest" was purchased by Sister Helen Ramsay, a nurse in the coronary care unit at Campbelltown Hospital.



**Figure 8.** Iris Woodhouse with a pony at Hillcrest. (Source: 002\002085. Iris Woodhouse with foal at "Hillcrest", Badgally Road, Campbelltown. Campbelltown City Council. Retrieved from: pictures.campbelltown.nsw.gov.au)

Statement of Heritage Impact • 50 Badgally Road, Claymore

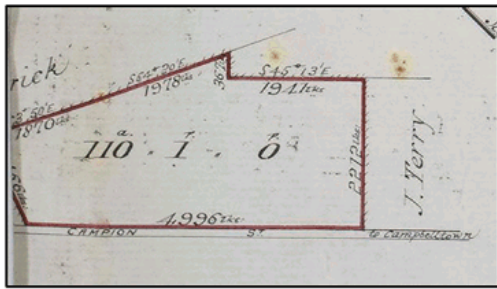


Figure 9: Land title 27 February 1182. Subject site located to the right of the allotment (LPI. 568-250. Source Land and Property Information)

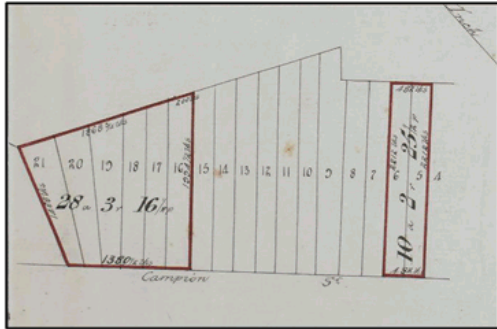


Figure 10: Land title 2 April, 1883. Subject site located to the right of the allotment (LPI. 634-250. Source Land and Property Information)

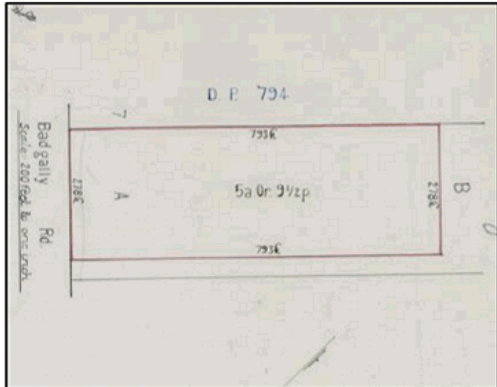


Figure 11: Land title 1 May 1951 (LPI. 6314-94. Source Land and Property Information)

### 3.0 PHYSICAL EVIDENCE

#### 3.1.1 Setting and Physical Context

The subject site is located on undulating topography to the eastern side of Badgally Road and slopes towards the roadways of Badgally Road and the Hume Highway overpass. The immediate surroundings to the site include the heritage-listed "*Glenroy Cottage*" (I44) to the north, Hume Highway to the south and new housing development to the east and west.

"*Hillcrest*" is a single storey painted brick house with a hipped corrugated steel roof and return verandahs to three sides. The main roof features two stuccoed brick chimneys. The house façade is symmetrical, and features french doors. The verandahs feature flat decorative cast iron columns and frieze. The dwelling is located towards the north western boundary and is surrounded by a very dense and mature garden, with many of the plantings visible in aerial photographs of the property. A long driveway is located along the northern boundary and leads up towards the main dwelling, passing a dilapidated stone and timber outbuilding which is situated along the same boundary. A large open grassed area is located towards the south western boundary and would have been used for stables and training by the Woodhouse family. Similarly, the dwelling appears to have featured some form of formal gardens in its past, which are currently only visible within aerial images.



Figure 12. Aerial view of subject site. Note dense vegetation surrounding dwelling (Source: sixmaps.com)

#### 3.1.2 Identification of existing significant fabric & general physical condition

The original form of the house remains legible, notwithstanding the later rear addition to the north and the natural and non-original plantings that surround the built form. From the exterior, the subject building appears to be in poor condition, yet has retained original fenestration patterns, original chimneys, and original roof form and pitch. However, Heritage 21 notes that the current state of the dwelling has been impacted by intrusive alterations and additions to original significant fabric.

Internally, the original form of the building remains partially legible due to the intrusive rear additions being constructed with unsympathetic fabric. The original internal elements of the site have

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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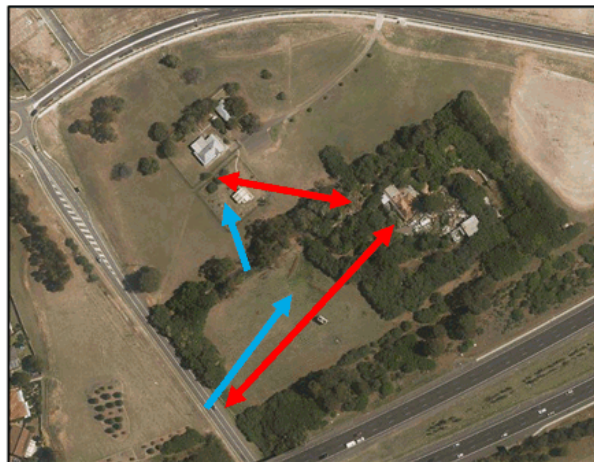
undergone considerable modifications, including the removal of internal walls, replaced ceilings and doorways, and the introduction of a bay window to the western elevation. It is the opinion of Heritage 21 that the integrity and legibility of the building has been compromised by the intrusive modifications to the external and internal fabric.

Heritage 21 has also identified a dilapidated outbuilding towards the northern boundary of the site (refer to Figure 21). The structure is constructed of timber and stone and appears to have been constructed as a dwelling or storage area. In addition, a fibro outbuilding is also located to the east of the eastern elevation.

### 3.1.3 View Analysis

Heritage 21 recognises the importance of a shared visual relationship to and from the subject site and its surrounding landscape. We also note that the significance of the property is not limited to the buildings, but includes its relationship to the surrounding landscape, including views and vistas over and from the property.

As discussed in Section 1.3.4 above, the subject *dwelling* does not currently share view lines to heritage items in the vicinity, nor is the subject dwelling visible from Badgally Road. The subject *site* itself is only partially visible from the perspective of Badgally Road and shares a partial visual relationship with the adjacent heritage-listed item.



**Figure 13.** Aerial view of subject site. Blue arrows mark existing secondary view lines. Red arrows mark potential visual relationships between the subject site and the locally-listed item, as well as the surrounding landscape (Source:sixmaps.com)

## 3.2 Images

The following photographs, taken by Heritage 21 on 20.08.18 and 16.11.2018, provide a visual survey of the site and its setting.

Statement of Heritage Impact • 50 Badgally Road, Claymore

3.2.1 Exterior



Figure 14. Subject site facing the front facade



Figure 15. western elevation of subject site.



Figure 16. Western elevation of subject site. Note non-original bay window



Figure 17. Rear entryway to subject dwelling. Note non-original external area



Figure 19. north eastern elevation of subject site. Note non-original later addition to subject site.



Figure 20. View towards non-original fibro shed.

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Figure 21. View of dilapidated outbuilding to the west of the residential dwelling.



Figure 22. View of subject site driveway



Figure 23. View of the open landscape to the south west of the subject dwelling.



Figure 24. View towards subject dwelling from south west boundary.

3.2.2 Interior

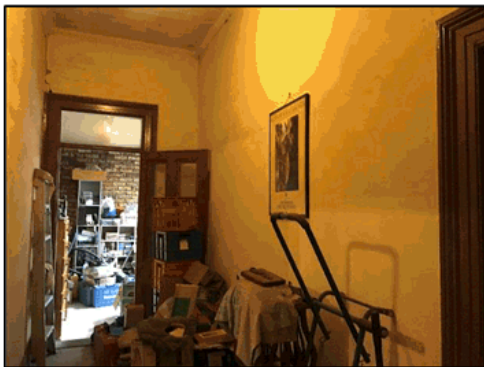


Figure 25. View of original hallway of subject site facing north



Figure 26. View of original hallway of subject site towards southern rooms

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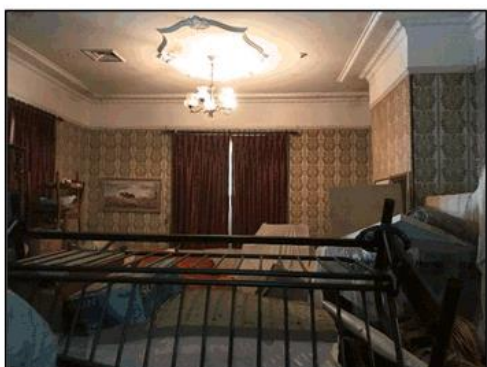


Figure 27. View of modified internal front room



Figure 28. View of modified internal front room.



Figure 29. View of front room original marble fireplace



Figure 30. View of bedroom bay window, non-original to site



Figure 31. View of non-original yet contributory pressed metal ceiling in first bedroom



Figure 32. View of non-original yet contributory pressed metal ceiling in first bedroom



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Figure 33. View of original marble fireplace in second bedroom

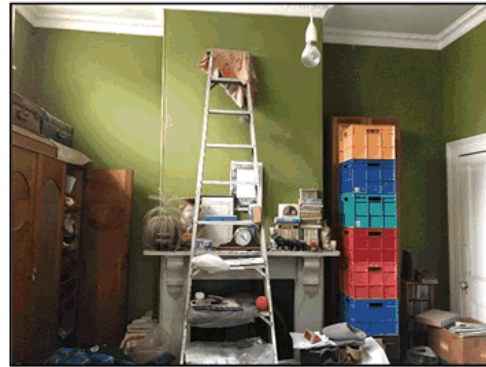


Figure 34. View towards fireplace in second bedroom

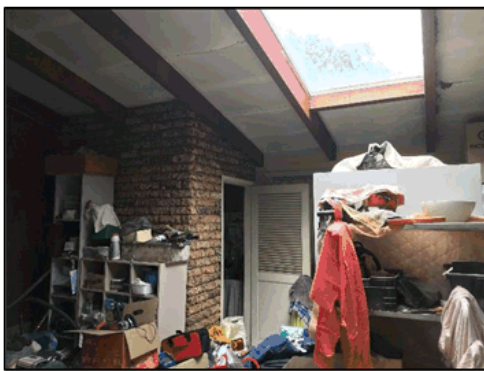


Figure 35. View of rear, non-original and intrusive additions



Figure 36. View of rear non-original and intrusive additions

## 4.0 CURTILAGE ASSESSMENT

### 4.1 Introduction

Heritage curtilages are essential for our ability to interpret the significance of heritage items. A curtilage should contain evidence of any cultural associations as well as providing a visual and aesthetic context for the item.

### 4.2 Historic Themes

In the case of Hillcrest, the existing physical fabric of the site demonstrates a number of historic themes. The following historic themes have generally been identified in the analysis of documentary and physical evidence of the site:

Australian theme	New South Wales theme	Local theme
4. Settlement-Building settlements, towns and cities	Accommodation-Activities associated with the provision of accommodation, and particular types of accommodation – does not include architectural styles – use the theme of Creative Endeavour for such activities.	Housing-famous families
4. Settlement-Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	Country Villa-

While some of these historic themes are discernible from existing fabric, the cultural significance of some abstract themes is not readily apparent and will need to be explained by interpretation. The following analysis looks at the existing fabric and history of the site to identify relationships between elements that are essential to the understanding and interpreting the history of Hillcrest.

### 4.3 Definition of Heritage Curtilage

Heritage curtilage is defined as the area surrounding a heritage item that is essential for retaining and interpreting its heritage significance. The curtilage should contain all the elements contributing to the heritage significance, conservation and interpretation of the heritage item, and may not necessarily coincide with the property boundary.

The NSW Heritage Office has identified the following four types of heritage curtilage:

#### Lot Boundary Heritage Curtilage

*The most common type of heritage curtilage comprises the boundary of the property containing the heritage item, or items. The property may also contain associated buildings, gardens and other significant features including walls, fences, driveways or tennis courts, all of which may contribute to the heritage significance of the property.*

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**Reduced Heritage Curtilage**

*This type of heritage curtilage is less than the lot boundary of the property. It arises where the significance of the item may not relate to the total lot, but to a lesser area, and is often only defined when development occurs.*

**Expanded Heritage Curtilage**

*There may be circumstances where the heritage curtilage may need to be greater than the property boundary. Depending on the typography, an expanded curtilage may be required to protect the landscape setting or visual catchment of a heritage item.*

**Composite Heritage Curtilage**

*This type applies to heritage conservation areas and defines this boundaries of land required to identify and maintain the heritage significance of an historic district, village or suburban precinct. The curtilage will encompass heritage items, which have a distinctive homogenous character.*

This type of curtilage is generally applied to a precinct or conservation area, and is not applicable to the subject site.

**4.4 Considerations in establishing a heritage curtilage****4.4.1 Generally**

This report follows the format set out in the document titled *Heritage Curtilages*, published in 1996 by the NSW Heritage Office, NSW Department of Urban Affairs and Planning. This process involves research to ascertain the significance of the site and its elements and an analysis of the existing site, including the following considerations:

- Historical allotments
- Design, style and taste
- Functional uses and interrelationships
- Visual links
- Scale
- Significant features
- Vegetation
- Archaeological features

**4.4.2 Historical Allotments**

*It may be important for historical reasons to display a heritage item in its relationship to its original allotment. In such cases, the retention of the allotment is necessary to demonstrate the visual setting and functional relationships of the structures on it, because they are integral to the heritage significance of the property.*

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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As stated in Section 1.3, the significance of the allotment comes from its association to the Woodhouse family and the subject dwelling's representative aesthetic appearance. Although the dwelling resides within a larger allotment, the significance of the subject site does not pertain directly to the surrounding curtilage.

Further, as stated above, it is our assessment that the visual setting of the subject dwelling is currently not evident from the surrounding allotment boundaries, and only partially visual relationships exist between the surrounding landscape and the subject site itself.

**4.4.3 Design, Style and taste**

*The design of a heritage item and its grounds can reveal much information about the architectural ideas, style and taste of its historical period. It can also be an essential part of the heritage significance of the item. Associated elements such as driveways, visual axes, plantings and fencing can provide valuable additional interpretative information.*

The surviving setting retains a number of important elements that demonstrate:

- The setting of the main building within the subject site. The dwelling is set to the north east ridgeline of the allotment, which reiterates and expands upon the significance of the original visual catchment from the surrounding landscape;
- Strong characteristics of Victorian filigree residential structures;
- The early landscape of the land, particularly the vegetation buffer that appears to have been introduced in the past in the form of a formal garden area.

The entranceway from Badgally Road is considered to be for utility purpose and not a design feature in the landscape.

**4.4.4 Functional Uses and Relationships**

*The significance of heritage items often involves their wider setting. This may provide evidence of historical, social and cultural associations and uses, which are integral to the heritage significance of the item. It is often the interaction of a heritage item with its surroundings through activities, functions and visual links that enable its heritage significance to be fully appreciated*

The early continuity of family ownership and a family association with the Woodhouse family has been recognised as a significant aspect of the place. Further, the siting of the dwelling on the allotments ridgeline demonstrates the original visual relationship the dwelling presented to the surrounding landscape, which would have been evident in a rural setting prior to the surrounding build-up of the suburb.

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**4.4.5 Visual Links – significant views and vistas**

*The heritage significance of some properties includes a visual link between them and a harbour, river, transport node, topographic feature, area of work or recreational area. The ability to interpret heritage significance is increased if the heritage curtilage can also maintain these links*

It is our assessment that the surrounding visual links is focussed towards the south-western boundary of the site and currently shares no visual link to the subject dwelling, nor the adjacent heritage item. Further, as discussed in Section 3.1.4, it is our assessment that further view lines between the subject dwelling and its surroundings could be introduced with the removal of intrusive vegetation and fencing.

**4.4.6 Scale**

*Care is needed to ensure that there is a satisfying proportional relationship between heritage items and the area of land proposed as a curtilage*

The build-up of dense housing and motorways surrounding the subject site has considerably compromised the interpretation of the site as a rural landscape setting, and further limited the visual catchment from the surrounding landscape. Further, as stated throughout this report, aerial images provide evidence of an earlier formal garden that has since formed a vegetation buffer to the north eastern axis of the subject site.

**4.4.7 Significant features**

*Significant features may have historical, aesthetic, scientific, or social importance that contributes to the heritage significance of the property.*

Significant features associated with the subject site comprise of the following:

- The subject dwelling; and
- Thirty high category trees (as noted by the *Arboricultural Impact Appraisal* report conducted by Naturally Trees and produced on 14 September 2018)

**4.4.8 Significant vegetation and topography**

*Trees or shrubs may be sole remnants or original gardens, avenues or perimeter and feature planting. They may have historical, aesthetic and scientific value for such reasons and may be significant in their own right. It may be necessary to retain plantings to frame or screen heritage items.*

As noted by the *Arboricultural Impact Appraisal* report conducted by Naturally Trees and produced on 14 September 2018, the site consists of thirty high category trees that are legally protected under Campbelltown City Council's Tree Preservation Order.

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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**4.4.9 Archaeological Features**

As stated above, it is beyond the scope of this report to assess the archaeological features of the subject site. However, we noted that no evidence of archaeological features is recorded in the NSW State Inventory.

## 5.0 HERITAGE SIGNIFICANCE

### 5.1 Subject Site

The following Statement of Significance is available for the site on the State Heritage Inventory website:<sup>5</sup>

*"Hillcrest" is of historical significance as the late 19th century country villa of a member of a prominent local family, and for its association with S.H. Woodhouse (1870-1896), a younger son of E.H. Woodhouse of Mt. Gilead. "Hillcrest" is of aesthetic significance as a good representative example of the Victorian Filigree style.*

### 5.2 Adjacent Heritage Item – Glenroy Cottage

The following Statement of Significance is available for the site on the State Heritage Inventory website:<sup>6</sup>

*Glenroy, built c. 1885-1891, is of historical significance as one of the surviving late 19th century farming properties in what is now known as the Claymore area, and is also an example of adaptation of historical buildings by the NSW Housing Department during the 1980s for community use. Glenroy has historical association with Charles Ernest McClelland and his family who owned the property and ran it as a dairy farm from 1929 till 1967, and with the NSW Housing Department following its acquisition after 1967. The retention of the group atop an open grassed slope (now public open space) has allowed the original context of the group as the focal point of a rural property to be retained and demonstrates the attention to detail and sensitivity to the underlying historic landscape shown in the early stages of Campbelltown's planning as a new urban centre.*

*The property includes two houses and outbuildings. The main farmhouse is of aesthetic significance as a good representative example of the late Victorian vernacular "L" plan cottage, with simple detailing and a timber slat valance to the verandah of the larger house. The smaller cottage is a good example of a simple hip-roof Victorian farm cottage. The composition and setting of the group is intact and remains readily interpretable by the community. This has been enhanced through the retention of much of its original curtilage as public open space and its spatial relationship with the adjacent heritage item Hillcrest even though much of Glenroy's pasture area has now been incorporated in the development of Claymore. The community centre uses of Glenroy suggest that the contemporary use of the property may be of social significance to the current community.*

<sup>5</sup> Hillcrest. NSW Office of Environment and Heritage, 'State Heritage Inventory', Search for NSW Heritage, n.d., <http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx>.

<sup>6</sup> Glenroy Cottage. NSW Office of Environment and Heritage, 'State Heritage Inventory', Search for NSW Heritage, n.d., <http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx>.

## Statement of Heritage Impact • 50 Badgally Road, Claymore

## 6.0 PROPOSED DEVELOPMENT

### 6.1 Proposal Description

The proposed works involves the development of the existing site in accordance with the drawing prepared by Design Workshop Australia. Effectively, the heritage item is to be separated from the rest of the parcel by an undefined heritage curtilage. The separated parcel of land is to be divided into individual residential/ domestic housing, while the subject dwelling and immediate curtilage is to be converted into a childcare facility.

The proposed works to the subject dwelling includes the removal of intrusive and non-original fabric to the rear of the subject site, and the partial removal of the non-original yet contributory veranda awning towards the rear of the north western elevation. Further, the proposal introduces an additional built form to replace the later, non-original fabric which is to be removed.

### 6.2 Drawings

Our assessment of the proposal is based on the following drawings by Design Workshop Australia, dated August 2018 and received by Heritage 21 on 06.12.2018. These are reproduced below for reference only; the full set of drawings accompanying the development application should be referred to for any details.

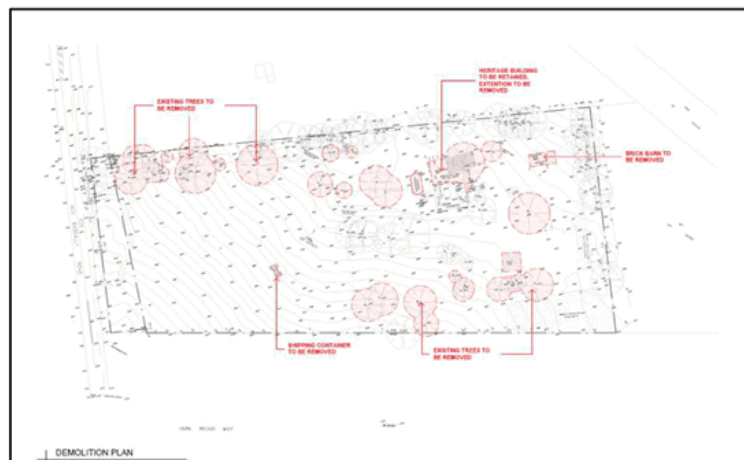


Figure 37. Proposed demolition plan



Statement of Heritage Impact • 50 Badgally Road, Claymore

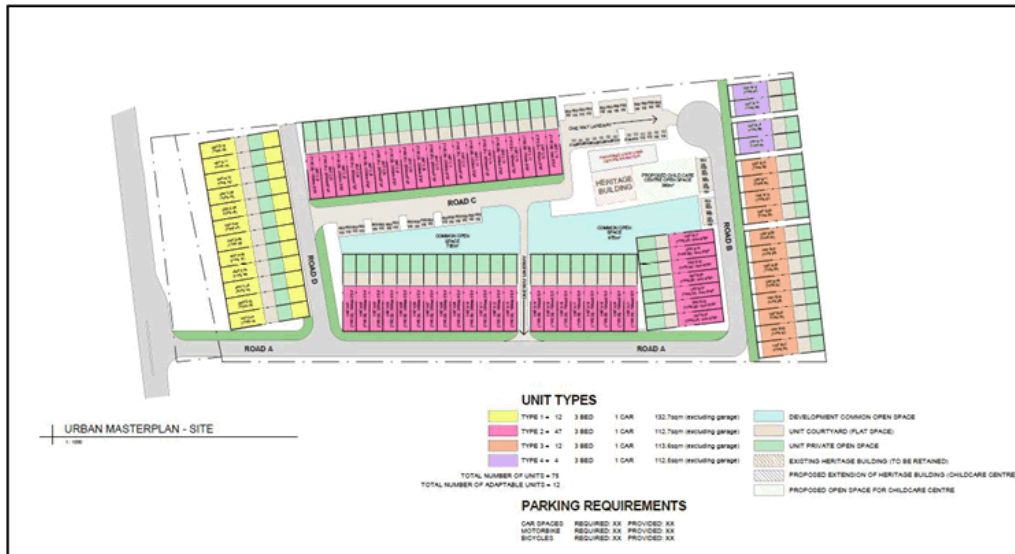


Figure 38. Proposed urban masterplan.

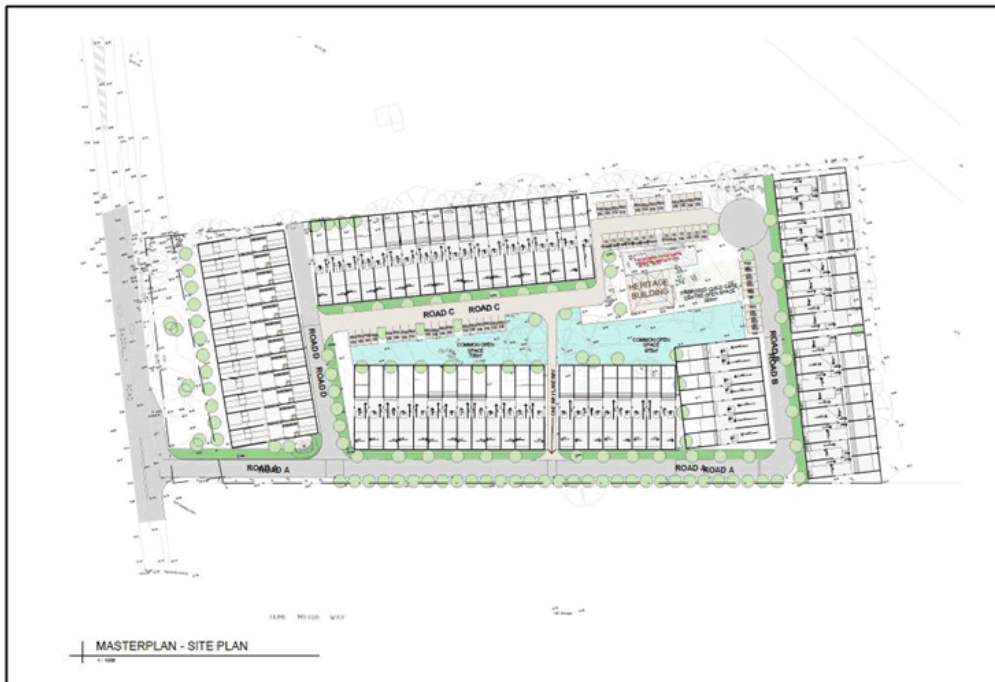


Figure 39. Proposed site plan

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## 7.0 ASSESSMENT OF HERITAGE IMPACT

### 7.1 Heritage Management Framework

Below we outline the heritage-related statutory and non-statutory constraints applicable to the subject site including the objectives, controls and considerations which are relevant to the proposed subdivision as described in **Section 6.0** above. These constraints and requirements form the basis of this Heritage Impact Assessment.

#### 7.1.1 Campbelltown Local Environmental Plan 2015

The statutory heritage conservation requirements contained in Section 5.10 of the Campbelltown LEP 2015 are pertinent to any heritage impact assessment for future development on the subject site. The relevant clauses for the site and proposal are:

- (1) Objectives
- (2) Requirement for consent
- (4) Effect of proposed development on heritage significance
- (5) Heritage assessment

#### 7.1.2 Campbelltown Development Control Plan 2015

Our assessment of heritage impact also considers the heritage-related sections of the Campbelltown Development Control Plan 2015 ('CDCP') that are pertinent to the subject site and proposed subdivision. These include:

##### Part 2 – Requirements Applying to all Types of Development

### 7.2 Heritage Impact Statement

Below we assess the impact that the proposed subdivision would have upon the subject site. This assessment is based upon the Site Investigation (refer to **Section 1.0**), Curtilage Assessment (Section **4.0**), Heritage Significance (refer to **Section 5.0**), the Proposal (refer to **Section 6.0**), a review of the Heritage Management Framework (refer to Section 7.1).

#### 7.2.1 Assessment of proposed works

The proposal, received by Heritage 21 on 3.12.18, proposes the heritage item to effectively be separated by the rest of the parcel. The separated parcel of land is to be divided into residential/domestic development sites, while the subject dwelling and immediate curtilage is to be converted into a childcare facility. The western entryway to the site would be re-located further south and expanded upon. Additional roadways would be introduced to the site to access the surrounding development. The existing open space to the western boundary would be reduced due to the proposed development yet would still maintain a central common open area. Additional development would require the removal of a dilapidated stone and timber outbuilding. Overall, the curtilage of the heritage item would be reduced from all elevations. Open space would be retained to the west of the

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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heritage item as it would to the eastern and prominent southern boundary. Further, the significant features (refer to **Section(s) 3.0** and **4.0**) of the site appear to be retained.

In conjunction with these findings and the aforementioned significance, it is our assessment that the reduction of the heritage curtilage is supportable from a heritage perspective for the following reasons:

- The proposal would not impact adversely on any significant feature within the surrounding allotment;
- The proposal incorporates the retainment of the primary significance of the site (the subject dwelling);
- The proposal retains and expands upon view lines between the dwelling and the surrounding significant features;
- The proposal is a natural separation of two disparate portions of the site. The subject dwelling is self-contained within an open landscape area, while the proposed development is to take place within the open yet non-significant components of the site; and
- The proposal retains open space to the east, south and west of the current dwelling

Notwithstanding the positive outcomes of this proposal, Heritage 21 understands the importance of retaining and conserving the significance of the site and its unique setting. As such, recommendations are made in **Section 9.0** of this report in order to help facilitate the significance of the site and its surroundings.

### 7.2.2 Campbelltown Local Environmental Plan 2015

The statutory heritage conservation requirements contained in Section 5.10 of the CLEP are pertinent to any heritage impact assessment for future development on the subject site. Clause 5.10(1) of the CLEP stipulates the requirement to “conserve the environmental heritage of Campbelltown”, through the conservation of “the heritage significance of heritage items ... including associated fabric, settings and views”. It is the assessment of Heritage 21 that the proposal would comply with these requirements, as the proposal does not entail any works to fabric or elements which are associated with the significance of the site.

### 7.2.3 Campbelltown Development Control Plan 2015

As acknowledged in Section 6.1.2, Heritage 21 has identified a range of objectives and provisions from the GDCP against which the proposed works can be assessed. Heritage 21 finds that:

- The proposal incorporates the retainment of the primary significance of the site (the subject dwelling);
- The proposal would remove the intrusive addition to the northern elevation;
- The proposal would not adversely impact on any significant features within the allotment;
- The proposal retains the landscaped vegetation that surrounds the site;
- The proposal retains a legible and prominent open space to the east, south and west of the current allotment;

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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- The proposed subdivision is a natural separation of two disparate portions of the site. The subject dwelling is self-contained within the grassed, gardened area, while the proposed residential development is to take place within the open yet non-significant component of the site.

Notwithstanding the positive outcomes of this proposal, Heritage 21 understands the importance of retaining and conserving the significance of the site and its unique setting. As such, recommendations are made in **Section 9.0** of this report in order to help facilitate the significance of the site and its surroundings.

## 8.0 CONCLUSION

Taking into consideration the numerous aspects of the proposal which respect the significance of the heritage item, Heritage 21 is therefore confident that the proposed subdivision complies with pertinent heritage controls and would have neutral impact on the heritage significance of the subject site. As such, Heritage 21 recommends that Campbelltown Council view the proposal favourably on heritage grounds.

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## 9.0 RECOMMENDATIONS

In accordance with the statutory obligations detailed in Clause 5.10 of the CLEP and the pertinent heritage objectives and controls outlined in the CDCP, Heritage 21 would recommend the following:

- Any changes to the subject site should be sympathetic to the heritage significance of the item;
- Alterations to the dwelling should encourage the removal of intrusive, non-original fabric, conducted under a schedule of conservation works;
- A vegetation buffer should be introduced to the immediate curtilage of the subject dwelling. This would promote the legibility of the site and allow for a visible yet refined curtilage; and

Further, we would recommend the following be taken into consideration during the initial design stage:

### 9.1 Design Provisions

Heritage 21 recommends that any future development encapsulate the provisions and guidelines set out in Section 2.11 (Heritage Conservation) of the CDCP.

#### 9.1.1 Contextually informed design concept

A comprehensive design concept for the subject site that responds to and protects the heritage significance of the site and its components and recognises and enhances the unique qualities, significance and prominence of the site is required.

Ensure principles enshrined in the Burra Charter 2013 and good architectural practice for design in context underpins the sitting, scale and interface of any built form and any alterations to the existing building.

### 9.2 Further Reports

The following reports are suggested for consideration:

#### 9.2.1 Landscape Plan

Heritage 21 recommends that a landscape plan be implemented that identifies management options for the significant vegetation and how archaeological deposits (if any) will be investigated and managed.

#### 9.2.2 Photographic Archival Recording

Heritage 21 recommends a Photographic Archival Recording of the site and the remnant original or early fabric be undertaken by a suitably-qualified heritage professional in order to identify and record the significance of the existing site. This should be prepared according to relevant standards and guidelines as outlined by the NSW Office of Environment & Heritage.

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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**9.2.3 Heritage Interpretation Strategy**

A suitably-qualified heritage practitioner should be engaged to prepare an interpretation strategy for the site. Such a strategy would identify historic themes associated with the site and would give guidance regarding appropriate and sympathetic ways in which to communicate this information to any future audiences.

**9.2.4 Schedule of Conservation Works**

A heritage professional should be commissioned to ascertain the condition and significance of each element (including the interior) of the main dwelling, the brick well and the other structural significant features listed above. Subsequently, this report would identify required conservation actions and guide a heritage appropriate approach to the reuse and short/longer term conservation of the item.

**9.2.5 Establishment of a sinking fund**

Heritage 21 recommends that the heritage building become part of the Strata yet to be formalised and that a dedicated sinking fund is allocated to the ongoing maintenance of the heritage item in perpetuity. This should become an adopted by-law of the Strata title – yet to be formed.

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**Statement of Heritage Impact • 50 Badgally Road, Claymore**

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**10.0 SOURCES**

Australia ICOMOS. 'The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance'. Australia ICOMOS, 2013. <http://australia.icomos.org/publications/charters/>.

Campbelltown Council. 'Campbelltown Local Environmental Plan', 2015.

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<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/listings/assessingheritage/significance.pdf>.

NSW Office of Environment and Heritage. 'State Heritage Inventory'. Search for NSW Heritage, n.d. <http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx>.

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<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf>.





## Supplementary Report • 50 Badgally Road, Claymore

08 July 2019

Melissa Stilloni  
Development Planner  
Campbelltown City Council  
Civic Centre, 91 Queen Street  
Campbelltown NSW 2560

**50 BADGALLY ROAD, CLAYMORE****SUPPLEMENTARY REPORT****1. Background**

Heritage 21 has been engaged by Design Workshop Australia to review the proposed development of the property situated at 50 Badgally Road, Claymore ('the site').

This supplementary report has been produced by Heritage 21 in response to comments made on 12 June 2019 by Mr. Paul Davies, the heritage consultant assessing this development proposal on behalf of Campbelltown City Council, regarding the proposed works for the subject site.

This report addresses the concerns and request for additional information raised by Mr. Davies as understood by the parties present at the meeting, including:

- A. The history of the subject site including the home ownership;
- B. The archaeological potential of the subject site;
- C. The proposed change to the entranceway and the carriage circle;
- D. The impact of the proposed development upon the curtilage of the heritage item;
- E. The impact of the proposed development upon views;
- F. The impact upon the barn; and
- G. The impact upon the garden.

The aforementioned concerns and requests for additional information are detailed in Sections 4-11 inclusively, below.

As a result of discussions held with Mr. Davies, at the 12 June 2019 council meeting, DWA (architects) has subsequently modified the design (refer to Attachment I of this report) mainly by enlarging the curtilage around the heritage building, reinstating the barn structure from salvaged materials, selecting compatible materials for the proposed townhouses such as brick and timber, stepping the layout of the townhouse rows in and out to achieve articulation and better adapting the scheme to address concerns regarding views.

The section of this report below deals individually with each of the concerns raised by Mr. Davies at the 12 June 2019 meeting.



## Supplementary Report • 50 Badgally Road, Claymore

**Item A – History of the Subject Site**

Mr. Paul Davies expressed concerns regarding the presentation of history within the Statement of Heritage Impact produced by Heritage 21 in December 2018. Highlighting concerns with a perceived lack of historical information, the following updated history of the subject site has been provided in this report, including a record of homeowners.

**Aboriginal**

The area of land around the Camden area was traditionally inhabited by the Dharawal people. Dharawal refers to a language group of people that covered the area from Botany Bay south to the Shoalhaven River and inland to Camden.<sup>1</sup>

The Dharawal people would have relied on the natural resources supplied by the land of the Georges River which included a water source from its tributaries with streams and swamplands also providing a variety of food.<sup>2</sup> Other resources obtained from the surrounding forest lands included native animals, as well the native roots, berries and seeds they would have gathered. Sandstone occurred along the Georges River providing shelter with the overhangs which formed due to erosion. The sandstone shelter also provides a record of European contact with sketches of cows remaining on the walls of the cave.<sup>3</sup>

The cows had wandered from the settlement at Sydney Cove months after their arrival. Two bulls and four cows had arrived with the First Fleet to provide a source of fresh meat. The horns of the bulls had been removed for the voyage from Cape Town to avoid injury during the journey. The animals had wandered around ninety kilometres south to the lush pastures of the Menangle-Camden area. In 1795 the cattle were re-discovered and had increased in number with many of which had horns. The area became known as the Cowpastures to the Europeans. Attempts to domesticate the animals were made by Europeans in the early 1800s with the appeal of fresh meat.<sup>4</sup> It is evident from the cave drawings that Dharawal people were both intrigued and scared by the strange creatures as depictions of bulls and hooves span the cave walls.

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<sup>1</sup> Carol Liston, 'The Dharawal and Gandangara in colonial Campbelltown, New South Wales, 1788-1830', 1988, p. 49 <http://press-files.anu.edu.au/downloads/press/p72051/pdf/article046.pdf> retrieved 17 June 2019.

<sup>2</sup> Campbelltown City Council, *Campbelltown's Aboriginal History: An insight into the first peoples of our region*, p. 3, [file:///C:/Users/History/Downloads/CampbelltownAboriginalHistoryflyer-lowres%20\(1\).pdf](file:///C:/Users/History/Downloads/CampbelltownAboriginalHistoryflyer-lowres%20(1).pdf) retrieved 17 June 2019.

<sup>3</sup> Carol Liston, 'The Dharawal and Gandangara in colonial Campbelltown, New South Wales, 1788-1830', 1988, p. 49-50, <http://press-files.anu.edu.au/downloads/press/p72051/pdf/article046.pdf> retrieved 17 June 2019.

<sup>4</sup> Ibid, p. 50.

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**Figure 1.** The Bull Cave at Kentlyn is located in Aboriginal Land Council Bushland. Source: <http://www.southwestvoice.com.au/bull-cave-finally-added-to-state-heritage-register/>

The Dharawal people moved throughout the region traveling between the areas now known as Campbelltown, Liverpool, Camden and Picton.<sup>5</sup>

### Post-European contact

Governor Macquarie visited the area in 1810. By this time the district was already being cultivated with fields of wheat and grazing of sheep and cattle.<sup>6</sup> Macquarie formally established the town of Campbelltown in 1820. Naming it in honour of his wife, Mrs Elizabeth Macquarie's maiden name of Campbell.<sup>7</sup> In 1826, the town plan was formalised.

Many ex-convicts and family groups settled in the area. Among the earlier settlers was John Warby, a convict stockman who had been living in the area since 1802 to guard the wild cattle and explore the area, establishing a working relationship with the Dharawal in doing so.

Other explorers to the area also established relationships with the Dharawal. Retired naval surgeon, Charles Throsby was granted 1500 acres of land in Upper Minto from Governor Macquarie and confirmed a cattle exchange from his previous land grant. He concentrated his efforts on pastoral activities for a number of years then began exploring the area, including the Illawarra district, Moss Vale and the country west of Sutton Forrest. In 1818 he joined Surveyor-General, James Meehan on an expedition from the Cowpastures through Moss Vale to Bundanoon Creek and south-east to Jervis Bay; after the party divided Throsby reached the

<sup>5</sup> Campbelltown City Council, *Campbelltown's Aboriginal History: An insight into the first peoples of our region*, p. 3, [file:///C:/Users/History/Downloads/CampbelltownAboriginalHistoryflyer-lowres%20\(1\).pdf](file:///C:/Users/History/Downloads/CampbelltownAboriginalHistoryflyer-lowres%20(1).pdf) retrieved 17 June 2019.

<sup>6</sup> Carol Liston, 'The Dharawal and Gandangara in colonial Campbelltown, New South Wales, 1788-1830', 1988, p. 50 <http://press-files.anu.edu.au/downloads/press/p72051/pdf/article046.pdf> retrieved 17 June 2019.

<sup>7</sup> Campbelltown City Council, 'History of Campbelltown', <https://www.campbelltown.nsw.gov.au/AboutCampbelltown/History/Historyofsuburbs/HistoryofCampbelltown?BestBetMatch=named|3ba77b09-4cae-4136-bd37-52774df911aa|7bc3c57c-c215-45ea-96d0-8d97f6884eea|en-AU> retrieved 20 June 2019.



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Shoalhaven River and Jervis Bay.<sup>8</sup> Hamilton Hume was another explorer that travelled with the company of Dharawal.

Prior to 1810 no reports of violence had been reported between Dharawal people and European Settlers. Conflict between European settlers and Aboriginal groups did not occur until 1814-16, a time which drought had made resources limited.<sup>9</sup> Various Aboriginal groups had travelled from the mountains and southern highlands looking for food around this time. These groups were more hostile than the Dharawal, but few settlers were able to tell the difference between certain aboriginal groups, therefore all aboriginals were considered threatening. In May and June 1814 unrest occurred, caused by the murder of an Aboriginal woman and her children at Appin, and then the murder of two European children. The situation resolved itself with the arrival of spring and the return of the groups to their own country.<sup>10</sup>

In March 1816 the mountain group (the Gandangara) returned in search of food. This time they were more aggressive, and more Europeans were killed, resulting in the farmers and settlers becoming more defensive. A confrontation occurred at Upper Camden with the settlers taking with them some members of the Dharawal as interpreters. The Gandangara attacked when approached, and the settlers responded. In April Macquarie ordered the military to respond to the situation, by capturing those that were causing unrest, though the orders did not distinguish between groups of friendly and aggressive Aborigines.<sup>11</sup> What is known as the Appin Massacre 1816 occurred on 17 April when soldiers that had been sent to the Cowpastures attacked, resulting in the death of many of the local Dharawal people. A memorial service is held in April each year by the Winga Myamly Reconciliation Group to remember the loss of lives.<sup>12</sup>

#### Rural diversity/ Early Colonial Settlement

In 1803 ex-convict, John Warby had been appointed government herdsman after the discovery of the herd of cattle at the Cowpastures. The colonial authorities had wanted to maintain the area as government land, but the Colonial Office in London gave other instructions. In 1805 a large land grant had been made to John Macarthur with the intention

<sup>8</sup> Vivienne Parsons, Australian Dictionary of Biography, Throsby, Charles (1777-1828), <http://adb.anu.edu.au/biography/throsby-charles-2735> retrieved 18 June 2019

<sup>9</sup> Carol Liston, 'The Dharawal and Gandangara in colonial Campbelltown, New South Wales, 1788-1830', 1988, p. 50 <http://press-files.anu.edu.au/downloads/press/p72051/pdf/article046.pdf> retrieved 17 June 2019.

<sup>10</sup> Ibid, p. 51.

<sup>11</sup> Campbelltown City Council, *Campbelltown's Aboriginal History: An insight into the first peoples of our region*, p. 6, [file:///C:/Users/History/Downloads/CampbelltownAboriginalHistoryflyer-lowres%20\(1\).pdf](file:///C:/Users/History/Downloads/CampbelltownAboriginalHistoryflyer-lowres%20(1).pdf) retrieved 17 June 2019.

<sup>12</sup> Ibid, and <https://www.campbelltown.nsw.gov.au/CouncilandCouncillors/AnnualEvents/AppinMassacreMemorialService>



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to breed merino sheep. He named his grant Camden and had accumulated a large estate by 1830.<sup>13</sup> Between 1810 and 1815 grants were measured and farming communities were established throughout the area.

The area around present day Campbelltown were divided into grants between 1816 and 1818. Some of the original grantees in the area included Thomas Burke, Thomas Clarkson, George Molle, Henry Cole, Thomas Bent and John Warby. Changes occurred with grants being sold and subdivided, while other grantees increase their land and developed agriculture holdings. Campbelltown was formally established in 1820, and in 1826 the town plan was formalised.

### Industrial growth/ Early Development and Infrastructure

Campbelltown Railway Station opened in 1858.<sup>14</sup> The first council was elected in 1882, with the Campbelltown Courthouse complete in 1886. In 1888 the town was connected to the Nepean River Water supply, and in 1899 Campbelltown Agricultural Society formed. By 1901 the population was 3000.<sup>15</sup>

### Claymore

The suburb of Claymore was officially assigned in March 1976,<sup>16</sup> though this was not the original name intended for the new suburb. Plans for the area included a large number of Housing Commission homes, and it was thought the name Badgally, would give a negative connotation to the area, with the association of the word 'Bad' in the name. Claymore was the name used by the Housing Commission during the planning and promoting of the project with the name coming from a property in the area. Officers of the Housing Commission had noticed the three claymore swords attached to the gates of a property and the name stuck. The name was contentious because that particular property had only changed its name to 'Claymore' in the 1960, it had been known in the 1920s and 30s as 'Rosslyn' and in the 1940s it was renamed 'Bukit Senung'.<sup>17</sup> Many of the streets of Claymore were named after Australian artists, many of whom had been honoured for their work.

<sup>13</sup> Weir Philips, Claymore Urban Renewal Project: View corridors and visual curtilage of *Glenroy* and *Hillcrest* Badgally Road, Claymore, 2012, p. 5.

<sup>14</sup> Weir Philips, Claymore Urban Renewal Project: View corridors and visual curtilage of *Glenroy* and *Hillcrest* Badgally Road, Claymore, 2012, p. 7

<sup>15</sup> Weir Philips, Claymore Urban Renewal Project: View corridors and visual curtilage of *Glenroy* and *Hillcrest* Badgally Road, Claymore, 2012, p. 10.

<sup>16</sup> NSW Geographical Names Board, [http://www.gnb.nsw.gov.au/place\\_naming/placename\\_search/extract?id=JPqWFrXlt](http://www.gnb.nsw.gov.au/place_naming/placename_search/extract?id=JPqWFrXlt) retrieved 18 June 2019.

<sup>17</sup> Campbelltown City Council, History of Claymore, <https://www.campbelltown.nsw.gov.au/AboutCampbelltown/History/Historyofoursuburbs/HistoryofClaymore?BestBetMatch=claymore%20history|3ba77b09-4cae-4136-bd37-52774df911aa|7bc3c57c-c215-45ea-96d0-8d97f6884eea|en-AU>

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The first residents arrived in Claymore in 1978. Prior to this, services such as a shop, community centre and temporary school had also been established to avoid problems caused by lack of services that had occurred in earlier Housing Commission areas.

As early as 1980 problems began to occur with an ABC current affairs program reporting on significant issues in the area. Many factors contributed to this including the lack of access to services, and the economic disadvantage of many of the people living there. Social tensions increased due to the style of housing and planning of the area, where people lived facing each other in multi-story, attached houses built back-to-front.<sup>18</sup> By the 1990s the suburb had deteriorated, becoming run-down from lack of maintenance and an increase in vandalism. Plans to re-develop were announced in 2010 after a visit to the area from the Federal Housing minister at the time, Tanya Piliberssek. By 2012 the Claymore Urban Renewal Project had stalled due to budget and financial issues.<sup>19</sup>

In 2016 a Facebook campaign sparked discussions to change the name of the suburb in an effort to remove the stigma associated with the area. At the time, it was one of Australia's 'most socially disadvantaged areas with high rates of poverty, unemployment and crime.'<sup>20</sup>

By 2017 the redevelopment project was underway with The Hillcroft estate, the first stage in the plans to rejuvenate the suburb 'from a social housing estate into a modern, socially mixed community'.<sup>21</sup> An update of the project released in August 2017 by the Department of Family and Community Services outlines the status of the project and future intentions.<sup>22</sup> By 2018 it was reported that the image of Claymore had turned around and was well on its way to becoming a million dollar suburb.<sup>23</sup>

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<sup>18</sup> ABC Four Corners Blog, 'A Short History on Claymore', 2012, <https://abc4corners.wordpress.com/2012/09/25/a-short-history-on-claymore/> retrieved 18 June 2019.

<sup>19</sup> Ibid

<sup>20</sup> Kimberley Caines, The Daily Telegraph, 'Call for new name for Claymore to give troubled suburb a fresh start' from The Daily Telegraph website, 2016, <https://www.dailytelegraph.com.au/newslocal/macarthur/call-for-new-name-for-claymore-to-give-troubled-suburb-a-fresh-start/news-story/df2ee12b90aa8769b52c7b112de1d5a7>

<sup>21</sup> Ben Chenoweth, 'Claymore transformation well underway' from Camden-Narellan Advertiser website, 2017, <https://www.camdenadvertiser.com.au/story/4475259/claymore-transformation-well-underway/> retrieved 18 June 2019.

<sup>22</sup> NSW Government, Department of Family and Community Services, *Claymore Renewal Project Update*, 2017, <http://www.sectorconnect.org.au/assets/Claymore.pdf> retrieved 18 June 2019.

<sup>23</sup> Ben Chenoweth, 'Claymore close to becoming a \$1 million suburb' from Camden-Narellan Advertiser website, 2018, <https://www.camdenadvertiser.com.au/story/5278195/claymore-close-to-becoming-a-1-million-suburb-photos/> retrieved 18 June 2019.

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### Hillcrest and the Woodhouse family

The land on which Hillcrest stands today was granted to ex-convict Daniel Brady, and herdsman, John Warby. In 1835 Daniel Brady transferred 40 acres of Warby's grant by Deed of Gift to William Jones. The land was then sold to William Fowler in 1854 and held among the Fowler family members until the land was bought under the *Real Property Act* in 1881, at which time the entire holdings amounted to 110 acres, including Brady's original land grant of 55 acres. (Report 2012 p. 7) In 1881 Fowler subdivided the property, known as Fowler's Farm, into 21 lots and sold it by auction, which took place on the property. Buyers generally brought two or more allotments. Henry Perdriau Junior brought the lots where Hillcrest stands today.

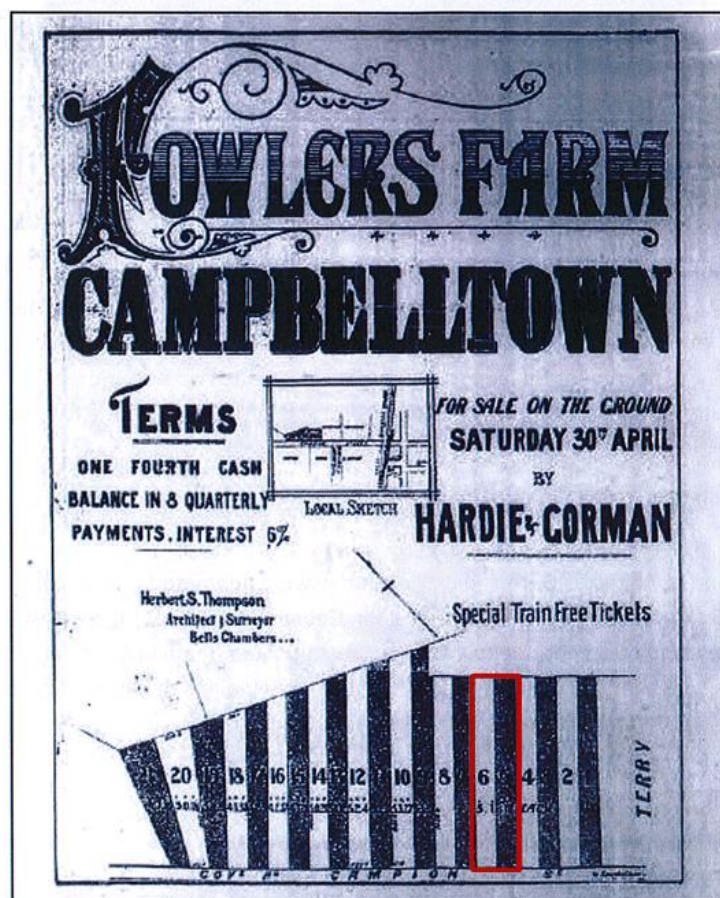


Figure 2. The subdivision of Fowler's Farm in 1881. (Source: Marie Holmes, *Badgally Road, Campbelltown: The Other Side of the Line*, 2000).

Hillcrest, believed to have been built in the 1850s to 1860s, is a nineteenth century country villa. Based on the Victorian Filigree style, it is situated on the crest of the hill overlooking Campbelltown. Hillcrest is an example of Colonial Regency Architecture and incorporates the unforced symmetry that is associated with this style.

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Figure 3. Hillcrest. (Source: The History Buff: Campbelltown City Library Local Information Blog.)

Perdriau sold lots 5 and 6, the lots where Hillcrest is built, in 1883 to Marshall Driver Woodhouse.<sup>24</sup> The property would remain in the Woodhouse family until the 1940s.

Marshall Woodhouse lived in the property with his wife Alice and children (three sons and 2 daughters) until he transferred the property to Schuldham Hume Woodhouse in 1891. Schuldham Hume Woodhouse was the youngest son of Edmund Hume and Gertrude Woodhouse of the nearby Mt Gilead estate.<sup>25</sup> Mt Gilead estate had become well known by 1878 for its dairy and beef cattle, with the dairy industry continuing into the twentieth century.<sup>26</sup>

In 1891 Schuldham married Violet Dinnery, and they had two daughter, Daphne and Iris, before his death in 1896.

Violet Woodhouse, Augustus Gore and Patrick Hurley were appointed trustees of the property in March 1896.<sup>27</sup> Violet remarried in 1911, to John George (Jack) Vardy, a postal worker at the G.P.O in Sydney, and they continue to live at Hillcrest until her death in 1934. John Vardy commuted to work every day until his death in 1937. After Violet's death the ownership of the

<sup>24</sup> Weir Phillips, Claymore Urban Renewal Project: View corridors and visual curtilage of *Glenroy* and *Hillcrest* Badgally Road, Claymore, 2012, p.15.

<sup>25</sup> Marie Holmes, 'Badgally Road: the other side of the line, Campbelltown', 2000, p.38.

<sup>26</sup> Dictionary of Sydney staff writer, Dictionary of Sydney, 'Gilead', 2008, <https://dictionaryofsydney.org/entry/gilead>

<sup>27</sup> Marie Holmes, 'Badgally Road: the other side of the line, Campbelltown', 2000, p.38.



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property transferred to Permanent Trustee Co. of NSW, before Daphne and Iris Woodhouse inherited.<sup>28</sup>

Daphne had married Kelverton Cuthell of “The Engadine” in Campbelltown but returned to Hillcrest after his death in 1930. She remained until her death in 1945. Iris resided at the property until the 1950s. She subdivided the 10-acre property and sold the portion of which Hillcrest was on to Stella Chapman, while retaining the remaining lot in 1954. Upon her death in 1972, her nephew, Charles Gilbert inherited both the lot next to Hillcrest and Daphne’s property “The Engadine”.<sup>29</sup>

Stella Chapman sold Hillcrest to Dr Liam Dwyer in 1965. Sister Helen Ramsay purchased the property in 1977. She was a nurse at the Campbelltown Hospital.

### Changes to the property

The iron work was from Ball’s Foundry in Goulburn.<sup>30</sup>

In 1891, architect A.R. Payten made alterations to the stables.<sup>31</sup>



Figure 4. Stables at “Hillcrest”, Badgally Road, Campbelltown. (Source: Alfred Cooper, donated photograph to Campbelltown & Airds Historical Society.)

It is believed that renovations occurred in the 1970 under the ownership of Dr Liam Dwyer. He removed a wall in the two front rooms to create one large room and added doors believed to be obtained from the old Campbelltown Courthouse. The rear wing was largely rebuilt, and

<sup>28</sup> Ibid, p. 39.

<sup>29</sup> Ibid, p.40.

<sup>30</sup> Campbelltown-Ingleburn News, 10 March 1981

<sup>31</sup> Marie Holmes, ‘Badgally Road: the other side of the line, Campbelltown’, 2000, p.38.

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the southern verandah was extended, with the verandah floor replaced with cement.<sup>32</sup> Additions were made to the northern side of the house.

The historical significance of *Hillcrest* is with its connection with a prominent local family and their involvement in the community. Violet Vardy was known at the time of her death in 1934 to have 'played a gracious part in the life of the district.' She was involved in the 'betterment of the town and every charity and dispensed generous hospitality at "Hillcrest".' She was a great supporter of the Agricultural Society and notable horsewoman and involved in the St John's Church. Her funeral was one of the largest at the time in Campbelltown and showed the high esteem in which she was held within the community.<sup>33</sup>

Both Daphne and Iris were involved with horses and in 1931 Iris won in the event for buggy horses in harness at The Royal Show.<sup>34</sup> In 1940 Iris exhibited three promising horses at the Royal Show.



Figure 5. Miss Iris Woodhouse with Santa Fe. (Source: The Daily Telegraph, 12 March 1940, p. 11, Trove)

<sup>32</sup> Ibid, p.40.

<sup>33</sup> Catholic Freeman's Journal, 8 Nov 1934, p.26

<sup>34</sup> The Sydney Morning Herald, 2 Apr 1931, p. 8

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The property of Hillcrest was not without tragedy. In 1910 the property may have been leased to George Frederick Byram for a period of six months. It was reported that he was found hanging in one of the outbuildings.<sup>35</sup> In 1934 Violets nephew, Gilbert Larcombe, was accidentally shot and killed in the grounds of St Gabriel's College, Campbelltown, while shooting rabbits.<sup>36</sup> He had come to live with the family as an infant, and died at the age of 16.

#### Aerials revealing the historical development of Hillcrest, Glenroy and the surrounds



Figure 6. Glenroy and Hillcrest and the surrounding area in 1947. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

<sup>35</sup> The Sydney Morning Herald, 29 Jun 1910, p. 10

<sup>36</sup> The Sydney Morning Herald, 5 January 1934, p.10.

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Figure 7. Glenroy and Hillcrest and the surrounding area in 1956. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

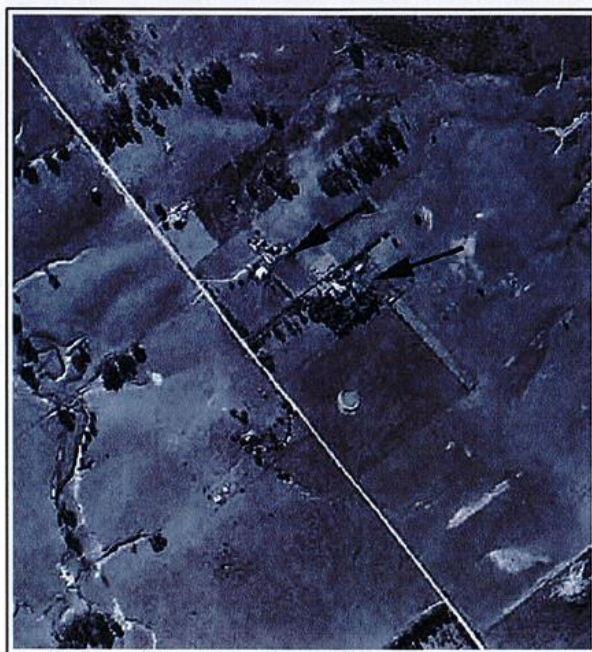


Figure 8. Glenroy and Hillcrest and the surrounding area in 1961. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

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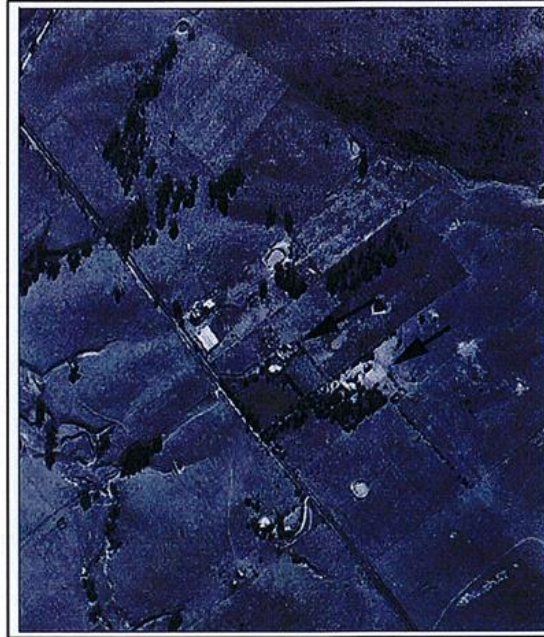


Figure 9. Glenroy and Hillcrest and the surrounding area in 1970. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

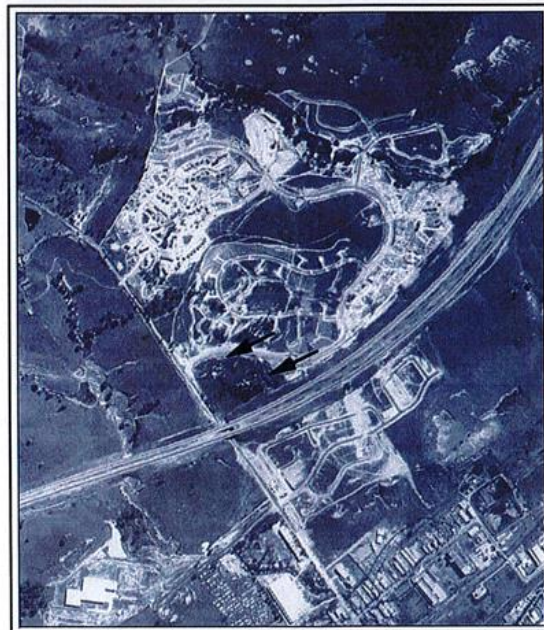


Figure 10. Glenroy and Hillcrest and the surrounding area in 1978. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

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Figure 11. Glenroy and Hillcrest and the surrounding area in 1978. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)



Figure 12. Glenroy and Hillcrest and the surrounding area in 1994. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

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Figure 13. Glenroy and Hillcrest and the surrounding area in 2004. (Source: NSW Lands Department, extracted from the Weir Phillips Claymore Urban Renewal Project Report, 2012)

#### Item B – Archaeological Potential of the Subject Site

The following archaeological map located on the historical lands record viewer, produced for the County of Cumberland, indicates that the site does not have archaeological potential.

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### Item C – Entranceway and Carriage Circle

Mr Paul Davies has expressed concerns regarding the demolition of the entranceway and carriage circle. It must be noted that at a meeting, held 5 November 2018, Council specifically recommended the location of the entry drive into the proposed complex to be located further south-east, away from the existing roundabout. This information, provided by Council's traffic consultant, has resulted in the existing entry driveway being deleted and the general layout of the townhouses proceeding accordingly. However, in the amendments that have been made to the proposal, the carriage circle would be reinstated and would be incorporated into the public space of the subject site.

In addition, it is not possible to reinstate the driveway exactly in accordance with the original historical location within the public domain due to the need to retain Tree 45 (refer to arborist report for additional details).

Nonetheless, Heritage 21 acknowledges that the existing driveway and carriage circle does have historical significance and we suggest that it be recorded by way of a photographic archival recording for posterity and interpretation of the intrinsic heritage values comprised on the site be communicated to owners and visitors.

The following plans from previous development applications indicate the various historical documents available that would assist with the reinstatement of the carriage circle following development.

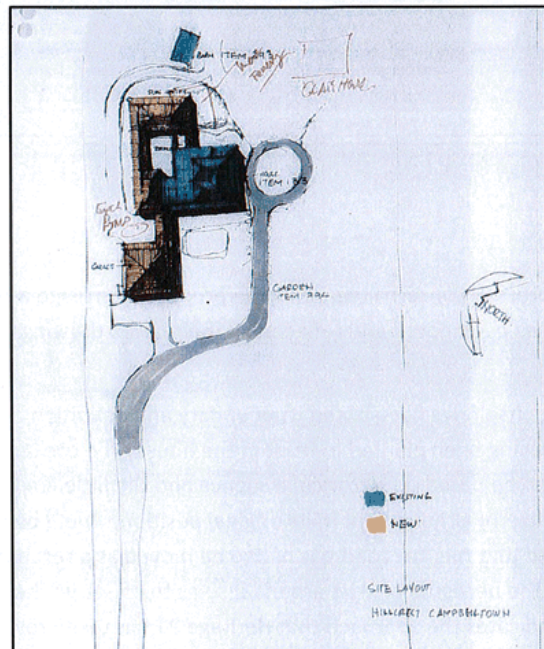


Figure 15. Site Layout of Hillcrest, c.1991.

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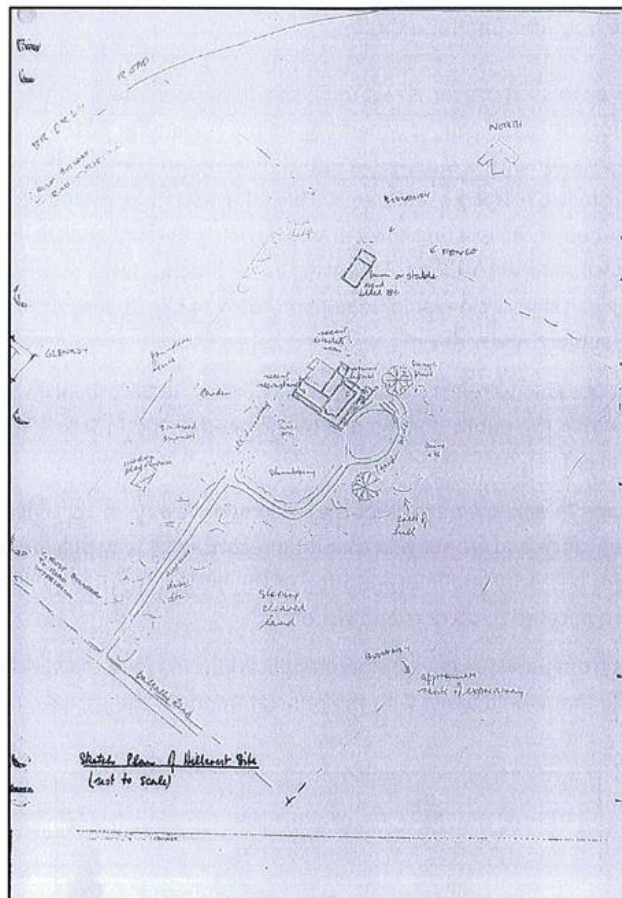


Figure 16. Sketch Plan of Hillcrest Site, c.1991.

### Item D – Curtilage

Mr Paul Davies has expressed concerns regarding the proposed curtilage around Hillcrest cottage. This concern has been noted and reflected in the revised drawings, refer to Attachment I.

In terms of the curtilage itself, we have based its boundary and definition on the historical evidence of a garden having been planted in front of the house. The carriage circle that would be reinstated would also be based on historical evidence and the little link road to the general vehicular circulation pattern; although not in its original position, would be close to the existing. We understand that this link road has had to be moved as a result of a mature ficus being in existence and the necessity to skirt around it so as to conserve the ficus. We trust that this explanation indicates the approach that Heritage 21 has taken towards an understanding of the historical curtilage of the subject property.

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#### Item E – Views

The Weir Phillips report dated May 2012, indicates that all other views have already been obliterated due to the construction of the freeway and tree planting along it.

*No part of the villa remains visible on approach in either direction along Badgally Road, or from outside of the property on Badgally Road, because of the thick vegetation that surrounds it. The Hume Highway provides an additional visual barrier. This does not, however, completely negate the significance of view corridors on approach to the property. The presence of mature trees, such as Bunya Pines, within the garden, that are typical of mid Victorian garden plantings, help mark the location of a historic dwelling in the landscape. As noted above, any views towards the villa and its gardens in the past from the east were private views now made public by the creation of Dobell Road. The view today is considerably foreshortened by Dobell Road and Claymore. Dense planting blocks all views towards the villa itself from this direction.*

*There is nothing in the historic aerial photographs or in available literature to suggest that there were important view corridors between Hillcrest and contemporary homesteads, such as Blairmount. Similarly, there are no outbuildings outside the lot boundaries of the property that share a relationship to Hillcrest.*

#### Item F – Barn

Originally, there was a timber barn placed close to the homestead. This is depicted in Figure 7 below.



Figure 17. Stables built at Hillcrest in 1891. (Source: Campbelltown & Airds District Historical Society)

The barn seen in Figure 17 above was replaced with a quasi-masonry structure that still exists on the site, albeit in a very poor condition. The barn is in a very serious state of disrepair and is technically uninhabitable due to long term neglect (overgrown with vegetation, dilapidation of masonry and failure of footings). Notwithstanding, there is an intention to reinstate this barn, using as much salvageable material as possible, including the timber doors. The revised plans (see Attachment I) indicate that this barn will be placed approximately east of the heritage

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CULTURAL BUILT HERITAGE IN THE 21ST CENTURY

### Supplementary Report • 50 Badgally Road, Claymore

building. This barn will be constructed using salvaged materials in combination with new materials, to create a free-standing townhouse, as depicted in the revised architectural drawings.



Figure 18. View to Hillcrest, photograph taken by Heritage 21 in 2018.

There is a separate structure close to Badgally Road, in the south-western section of the sites – see Fig. 17 above. However, this structure has no heritage significance. It was probably constructed as a cubby house using local sandstone blocks or brought onto the site from elsewhere. We make this assertion on the basis of the image below, which indicates that in 1979, it was not there.

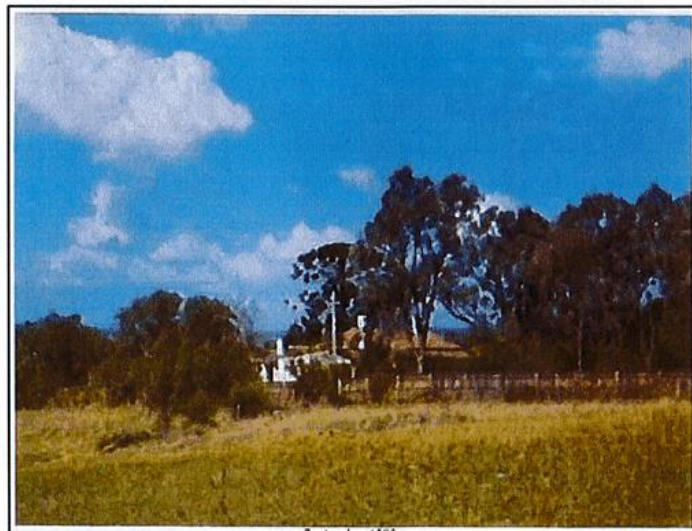


Figure 19. View to Hillcrest, photograph taken in September 1979.

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#### Item G – Garden

There are no historical gardens remaining from the original Hillcrest construction. The paragraph below, indicates that the original gardens were cleared in 1973.

Dr. Liam Dwyer bought *Hillcrest* from Stella Chapman in 1965 for £5000. In 1973 the house was on a five acres block of land of which one and a half acres was cleared. This cleared land was between the house and the road. During his ownership of the property Dr Dwyer carried out some renovations. One of these involved converting the two front rooms into one large room. Some doors were taken from the Old Court House in Campbelltown and used for the house. The verandah was extended with matching columns and the verandah floor was laid as cement. Dr. Dwyer died in Portugal in 1974. Following this, the property was offered to the State Planning Authority but they rejected it as they did not have sufficient funds for its purchase.

Figure 20. Extract from Marie Holmes, *Badgally Road, Campbelltown: The Other Side of the Line*, 2000, p.40.

#### 2. Revised Design

Respectfully, Mr Davies has provided positive input into the redesign of the townhouses. Attachment I below, indicates that there is now articulation in both the layout and the façade of the proposed townhouses. The proposed materials and colours are also appropriate, particularly due to the incorporating of traditional materials, such as bricks and timber. In addition, there is increased curtilage around the original homestead and there is the reinstatement of the barn from salvaged materials.

#### 3. Conclusion & Recommendations

Based upon the information provided above, Heritage 21 is confident that the concerns and requests for additional information have been adequately addressed in this report.

Yours sincerely,

**Paul Rappoport – Heritage Architect  
Director**

B. Arch., AIA, MURP, M. ICOMOS, IHBC  
Registered Architect No. 5741 - NSW Architects Registration Board  
Master of Urban & Regional Planning (Hons) - MURP  
Member of Society of Architectural Historians - SAHANZ  
Member of Australia ICOMOS – M. Australia ICOMOS  
Member of The Institute of Historic Building & Conservation - IHBC  
Member of International Planning History Society – IPHS  
Member of The Twentieth Century Heritage Society of NSW Inc.

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**ATTACHMENT I**

Architectural drawings produced by DWA, received by Heritage 21 on 5 July 2019.

Landscape plans produced by Taylor Brammer, 5 July 2019.



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CULTURAL BUILT HERITAGE IN THE 21ST CENTURY

## Supplementary Report - 50 Badgally Road, Claymore

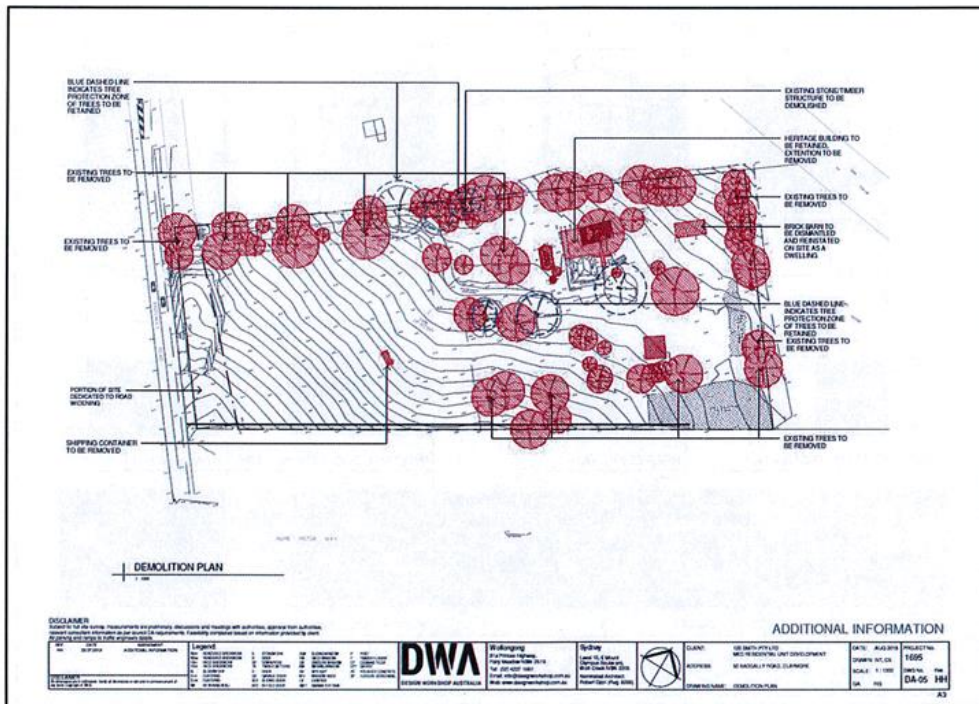


Figure 21. Demolition plan, DA-05.

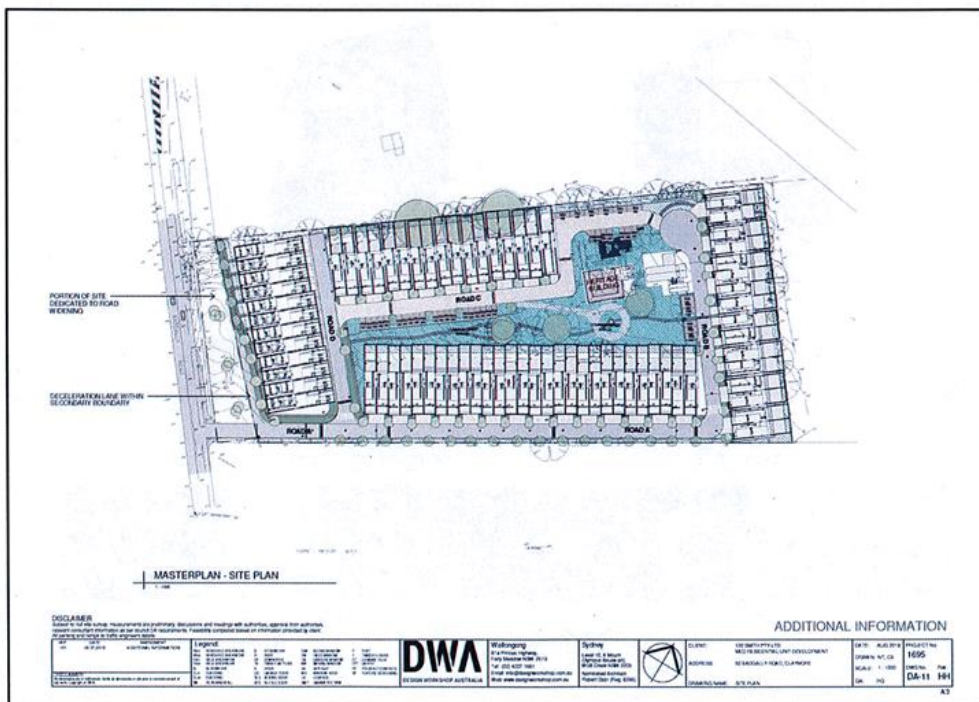


Figure 22. Masterplan - Site Plan, DA-11.

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## Supplementary Report • 50 Badgally Road, Claymore

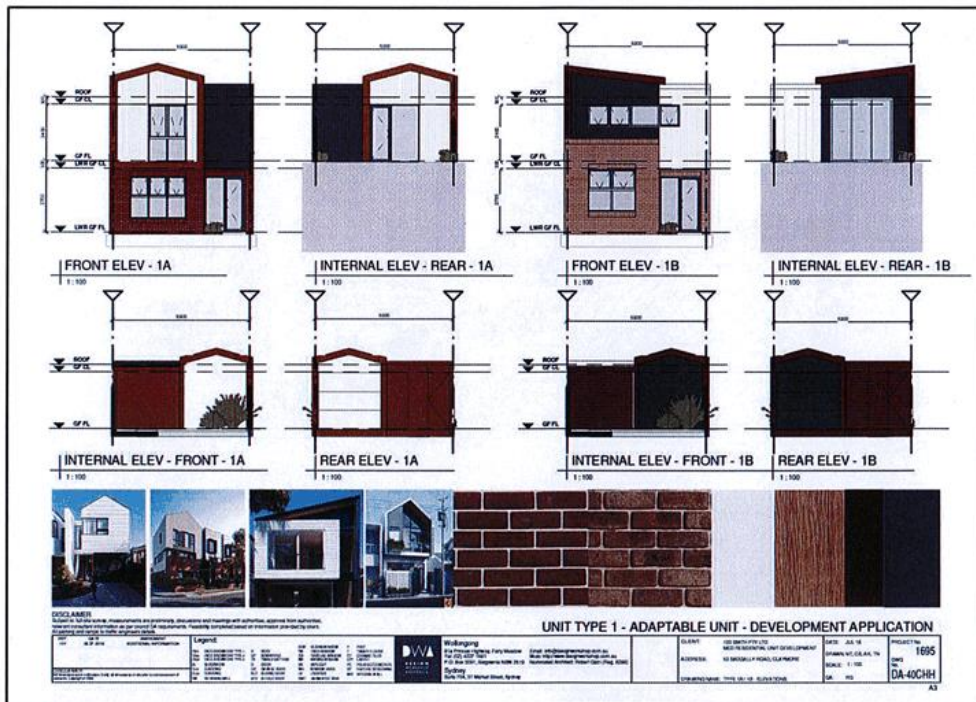


Figure 23. Unit Type 1, Adaptable Unit, DA-40CHH.

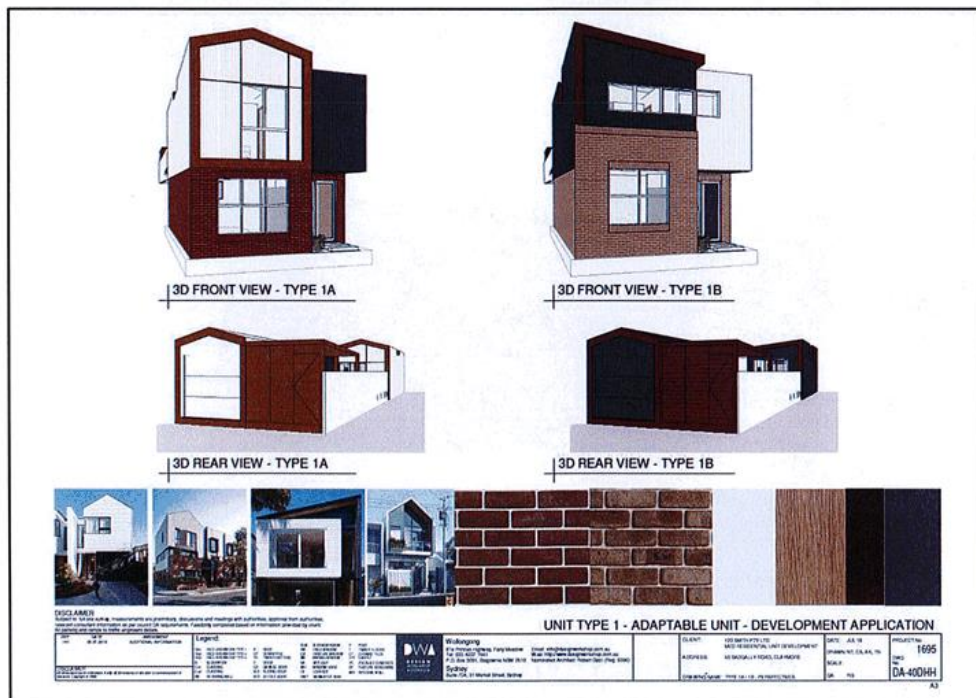


Figure 24. Unit Type 1, Adaptable Unit, 3D Views, DA-40DHH.



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## Supplementary Report • 50 Badgally Road, Claymore

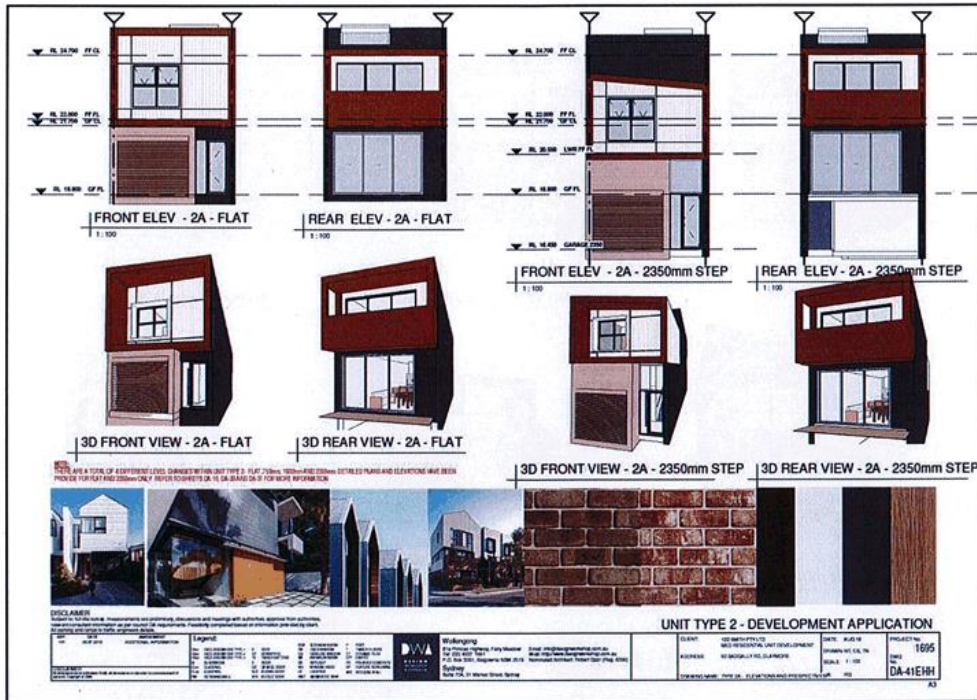


Figure 25. Unit Type 2, Adaptable Unit, 3D Views, DA-41EHH.



Figure 26. Unit Type 2, Adaptable Unit, 3D Views, DA-41FHH.

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## Supplementary Report • 50 Badgally Road, Claymore

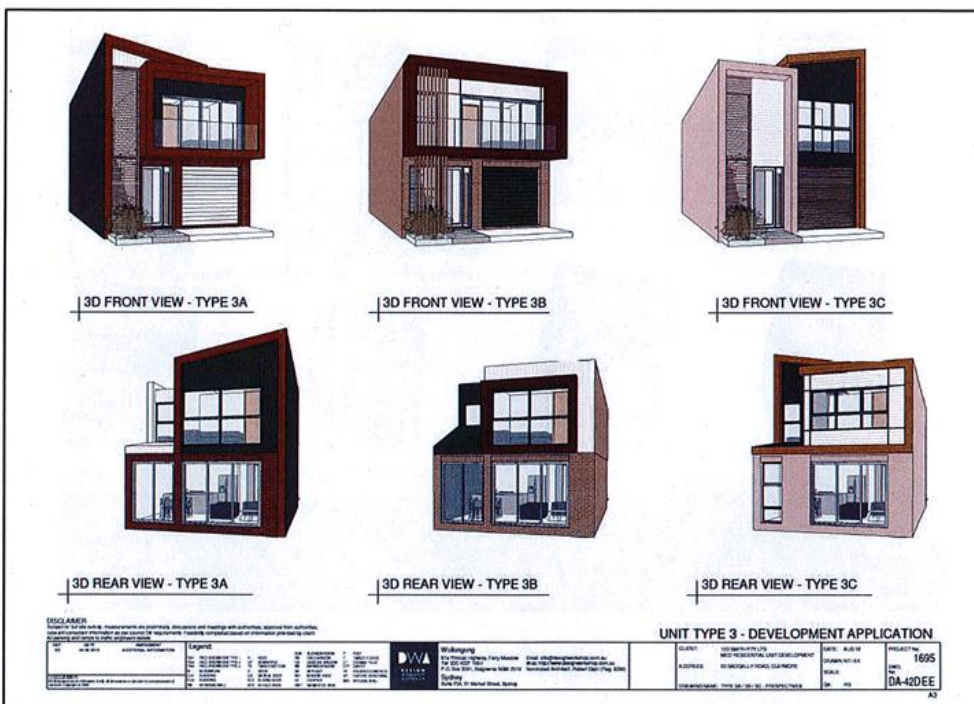


Figure 27. Unit Type 3, Adaptable Unit, 3D Views, DA-42DHH.

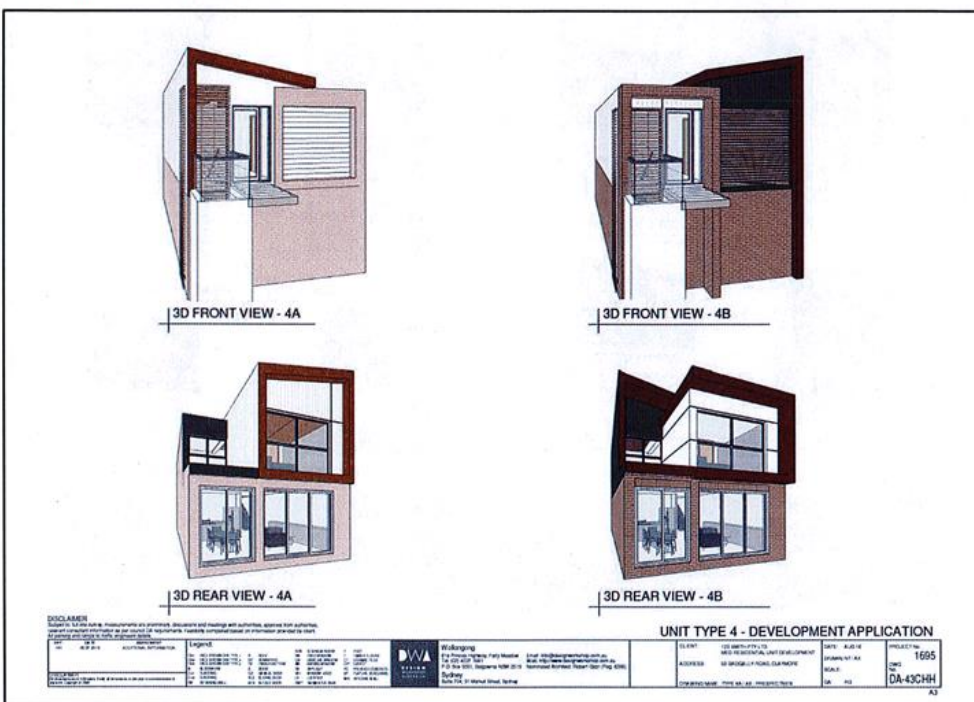


Figure 28. Unit Type 4, Adaptable Unit, 3D Views, DA-43CHH.

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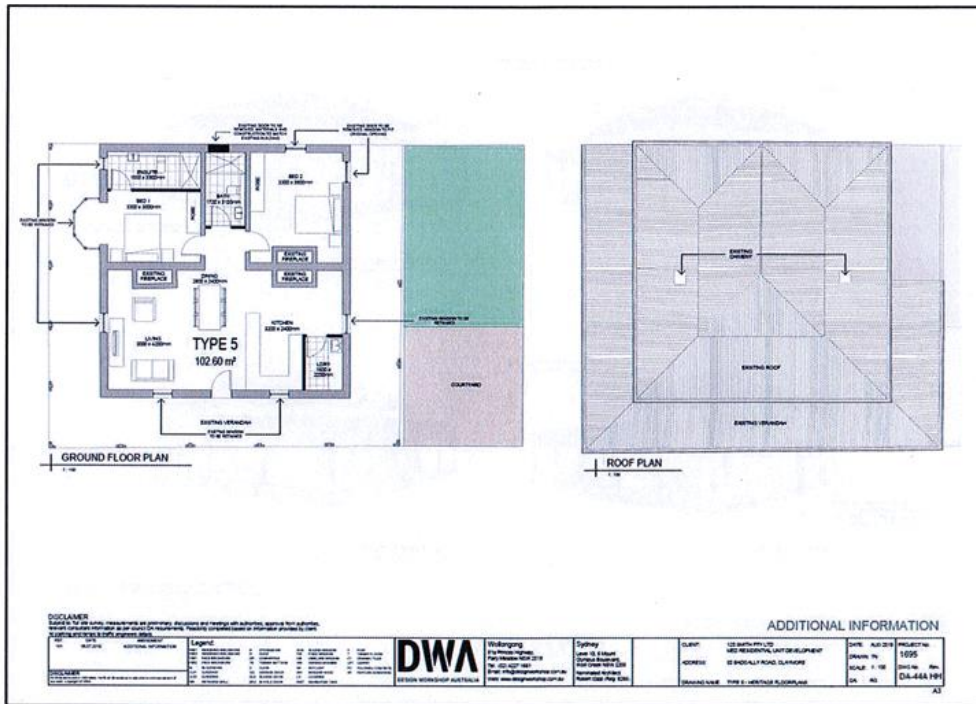


Figure 29. Heritage Floor Plans, DA-44AHH.

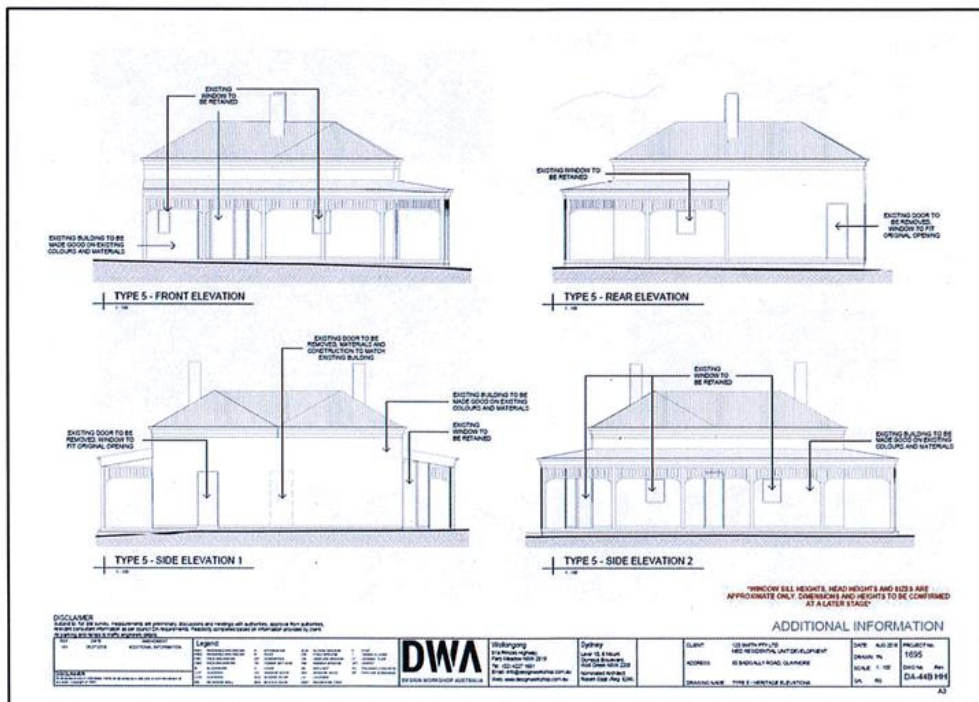


Figure 30. Heritage Floor Plans, DA-44B HH.

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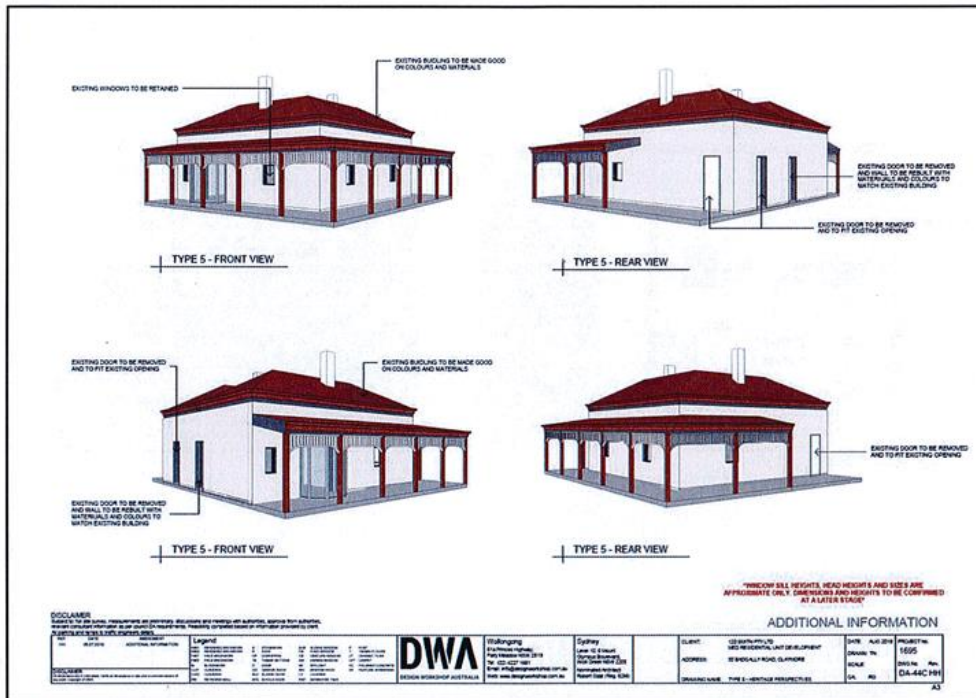


Figure 31. Heritage Perspectives, DA-44CHH.

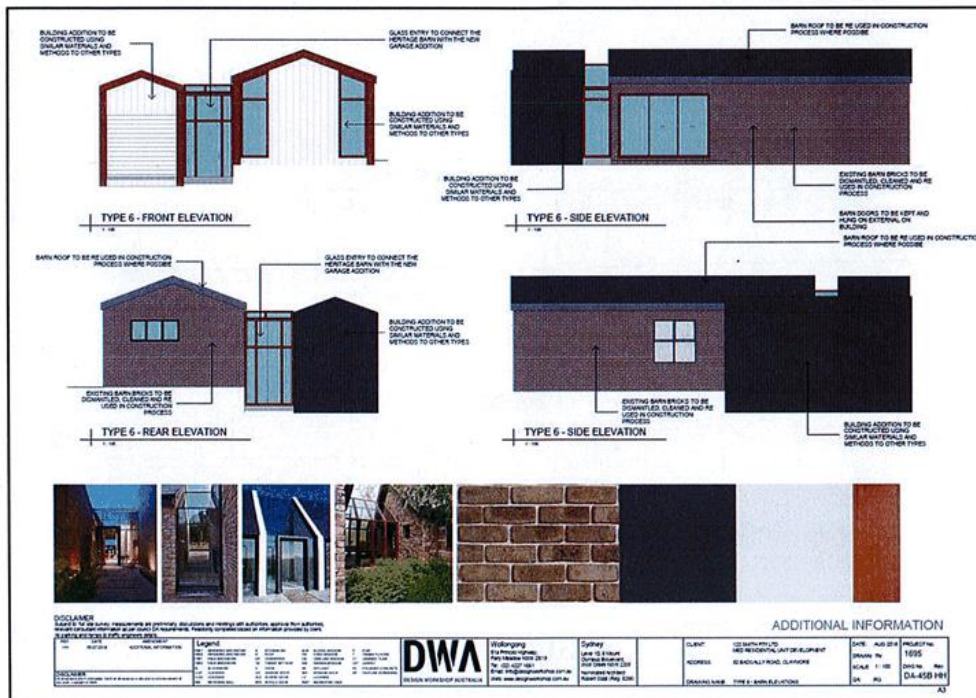


Figure 32. Type 6, Barn Elevations, DA-45BH.

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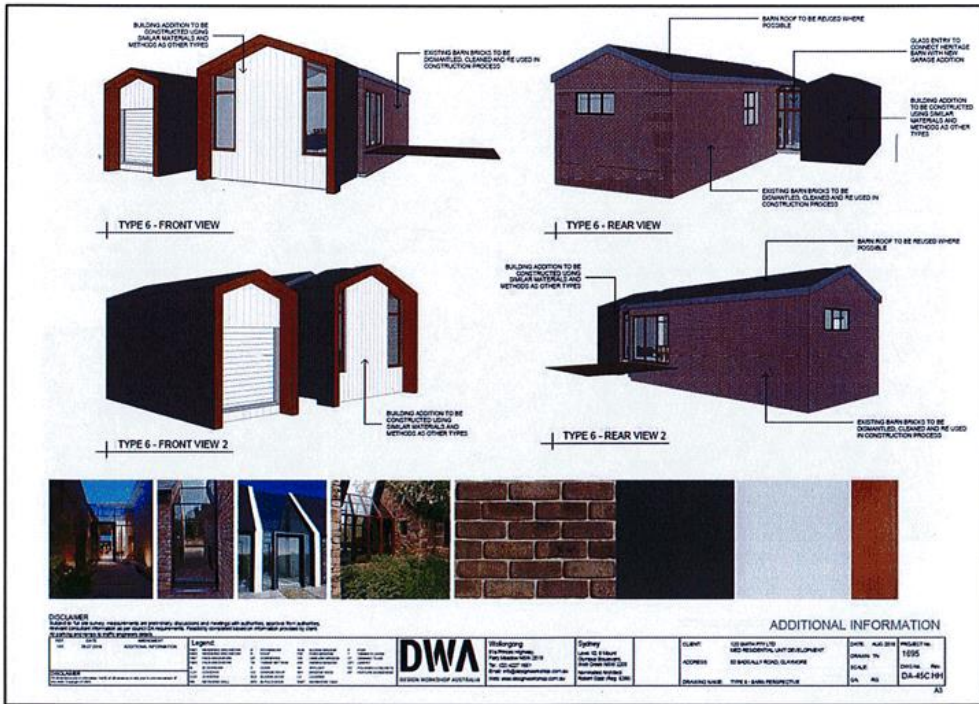


Figure 33. Type 6 Barn Perspective, DA-45CHH.



Figure 34. Contextual Heritage View Analysis, DA-51HH.



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## Supplementary Report • 50 Badgally Road, Claymore

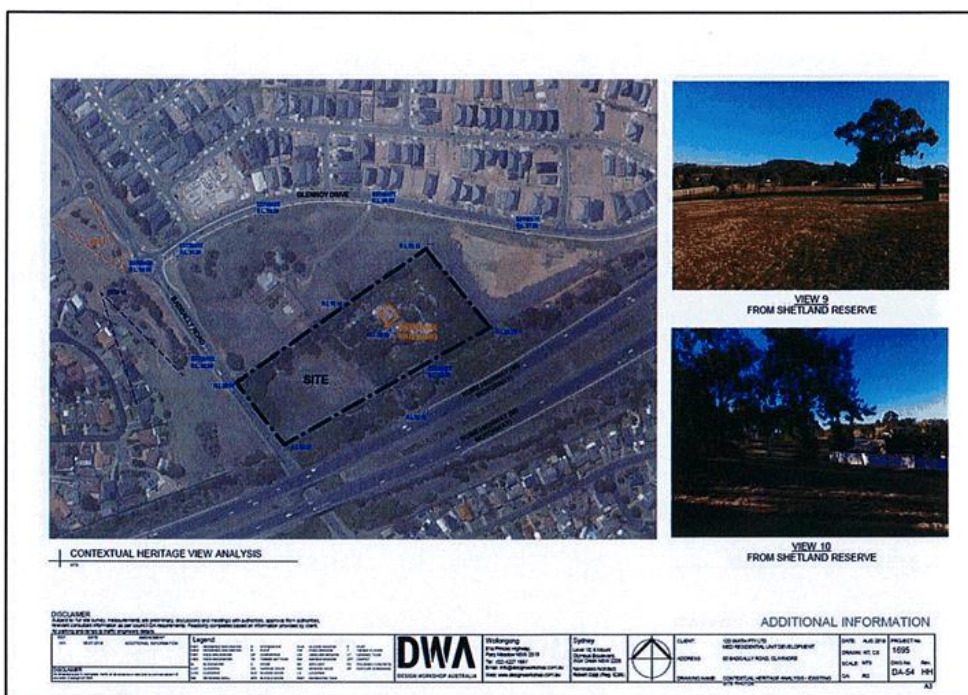


Figure 37. Contextual Heritage View Analysis, DA-54HH.

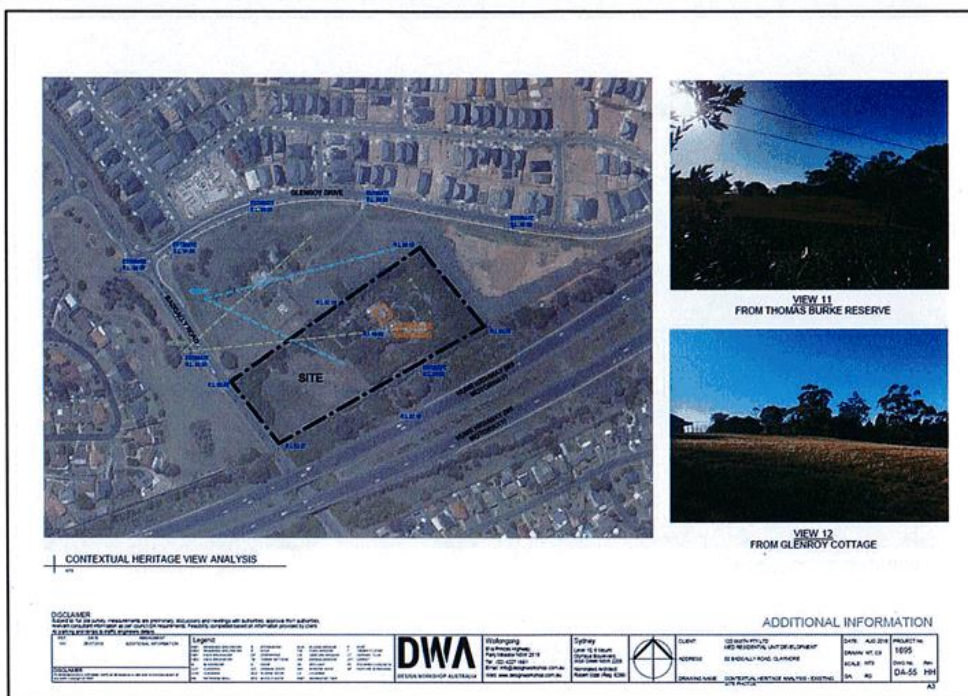


Figure 38. Contextual Heritage View Analysis, DA-55HH.

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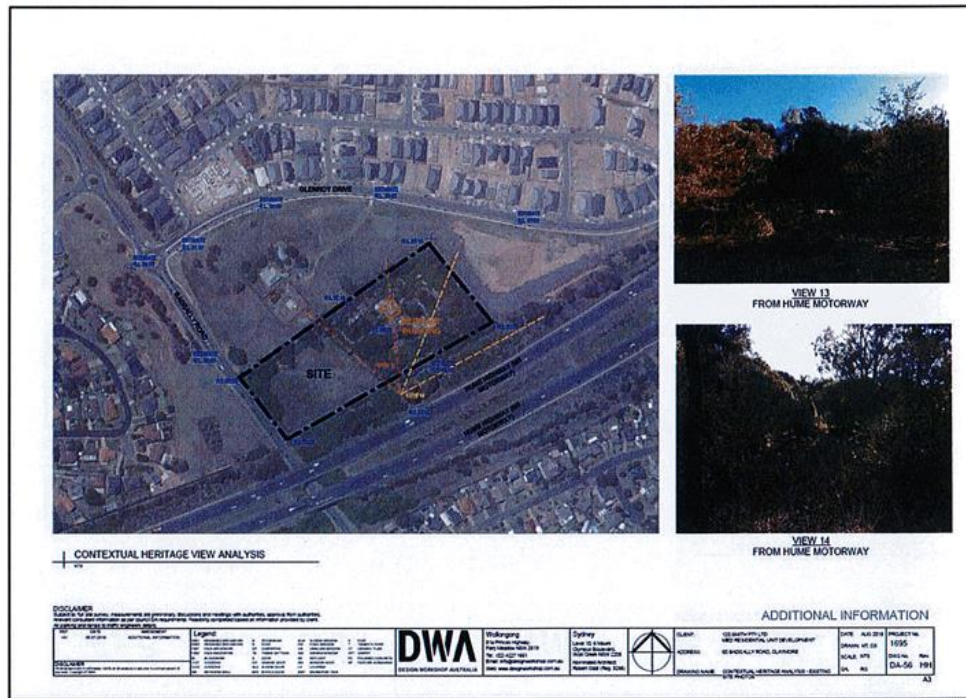


Figure 39. Contextual Heritage View Analysis, DA-56HH.

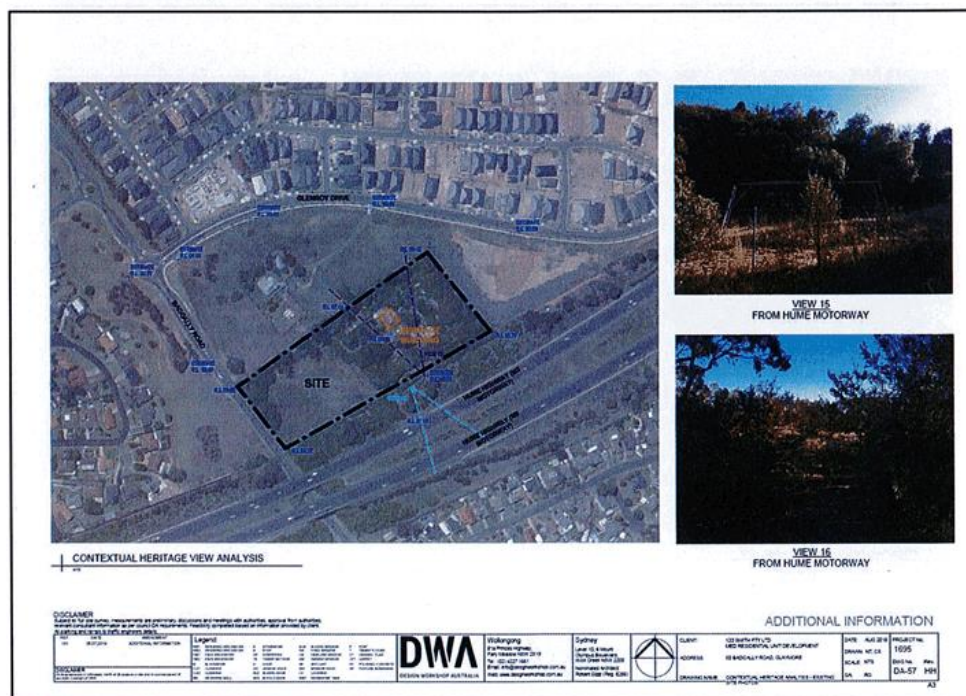


Figure 40. Contextual Heritage View Analysis, DA-57HH.



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## Supplementary Report - 50 Badgally Road, Claymore

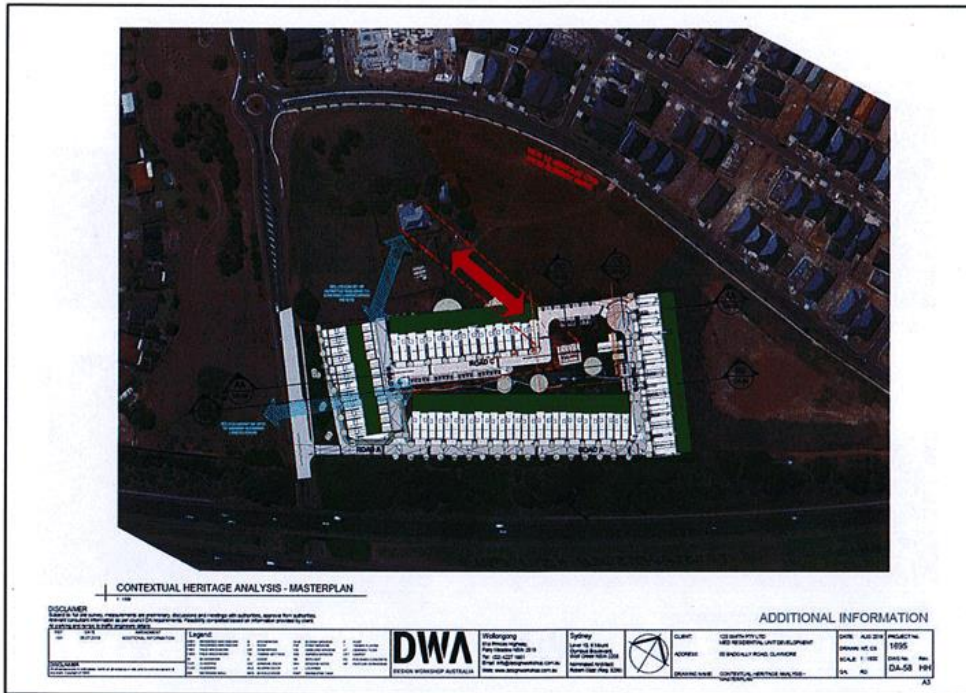


Figure 41. Contextual Heritage Analysis – Masterplan, DA-58HH.

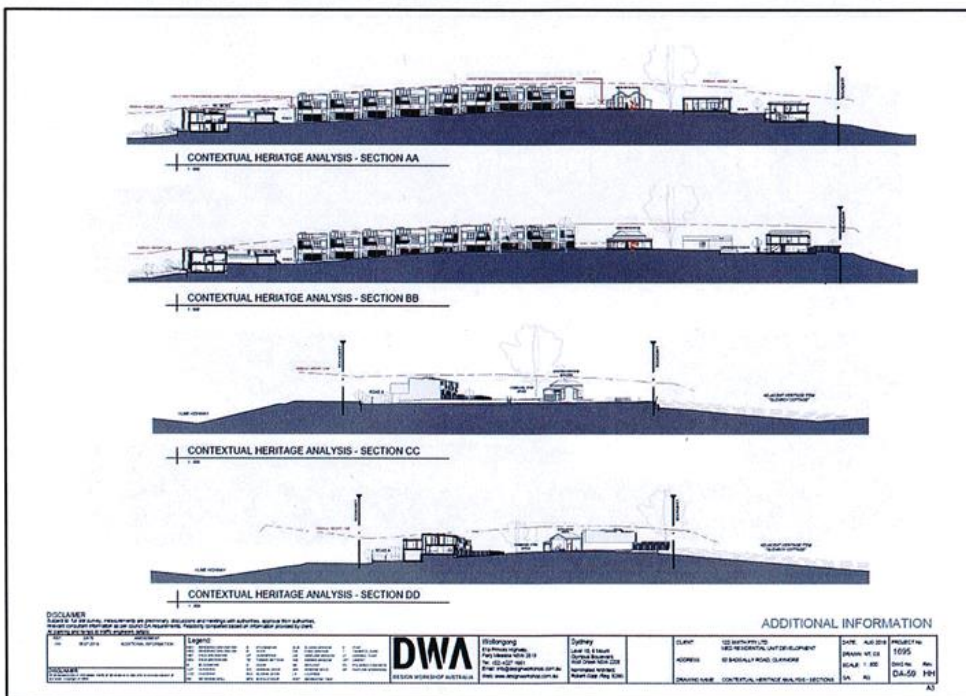


Figure 42. Contextual Heritage Analysis, DA-59HH.

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Figure 43. 3D Street Perspectives, DA-60HH.

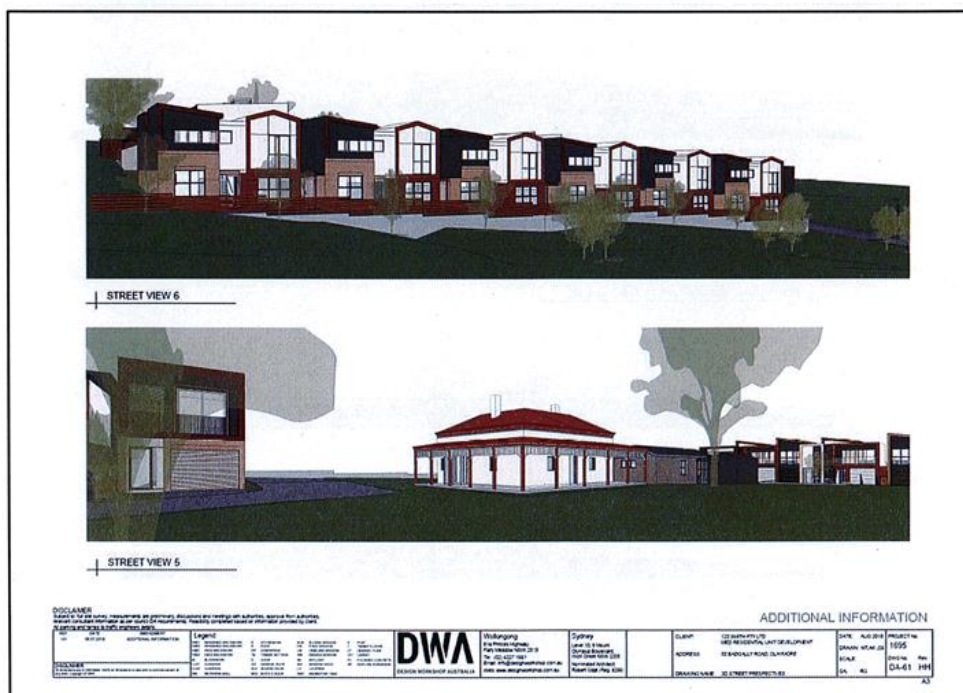


Figure 44. 3D Street Perspectives, DA-61HH.

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Figure 45. 3D Development Perspectives, DA-62HH.

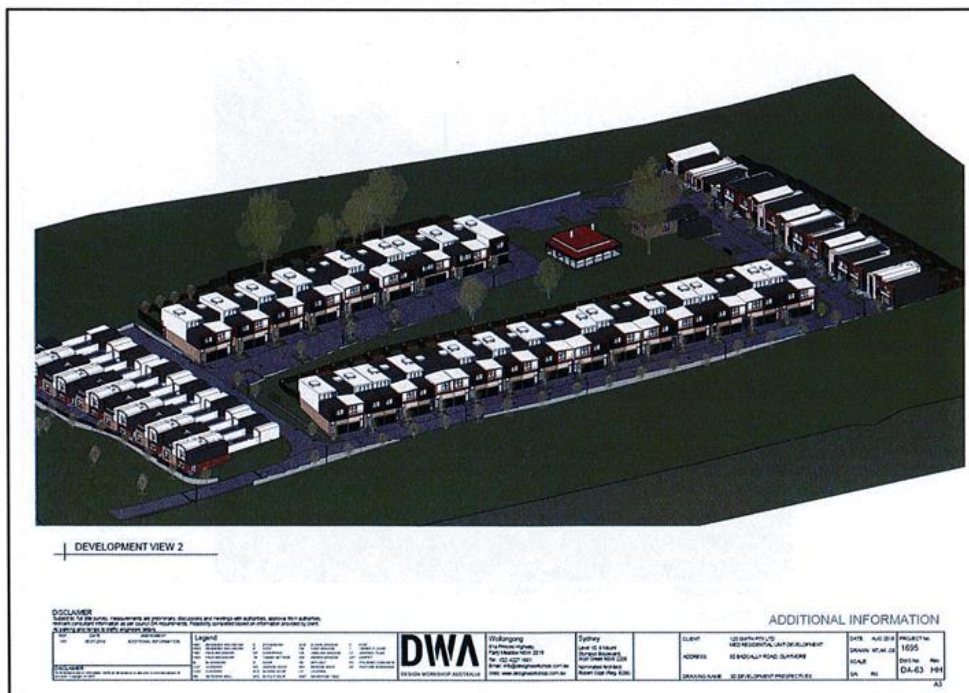


Figure 46. 3D Development Perspectives, DA-63HH.

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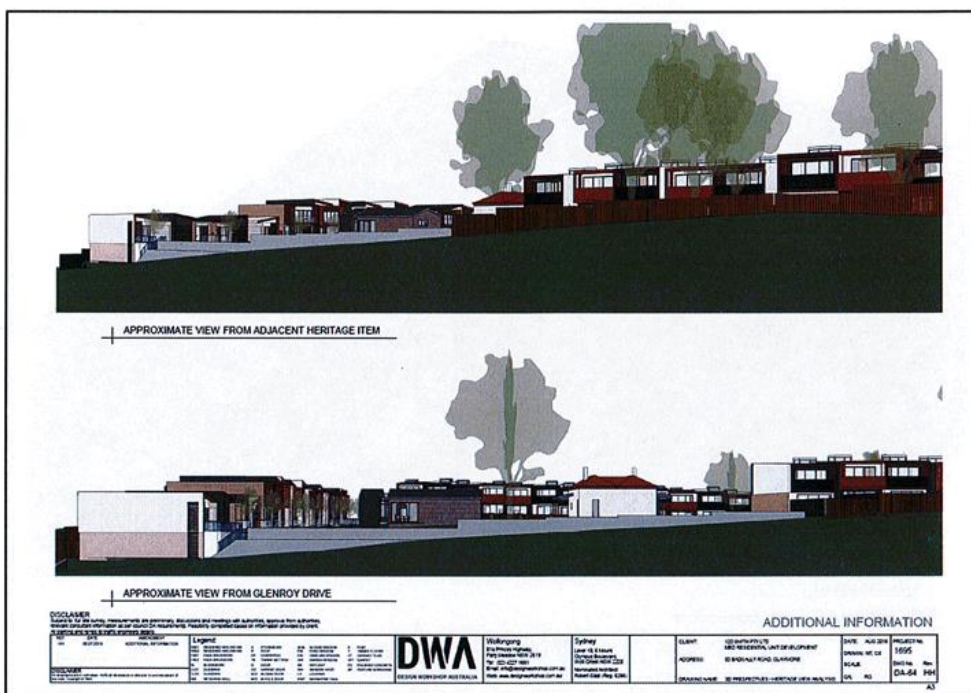


Figure 47. 3D Perspectives, Heritage View Analysis, DA-64HH.



Figure 48. Heritage Building View Analysis, DA-65HH.

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CULTURAL BUILT HERITAGE IN THE 21ST CENTURY

## Supplementary Report - 50 Badgally Road, Claymore

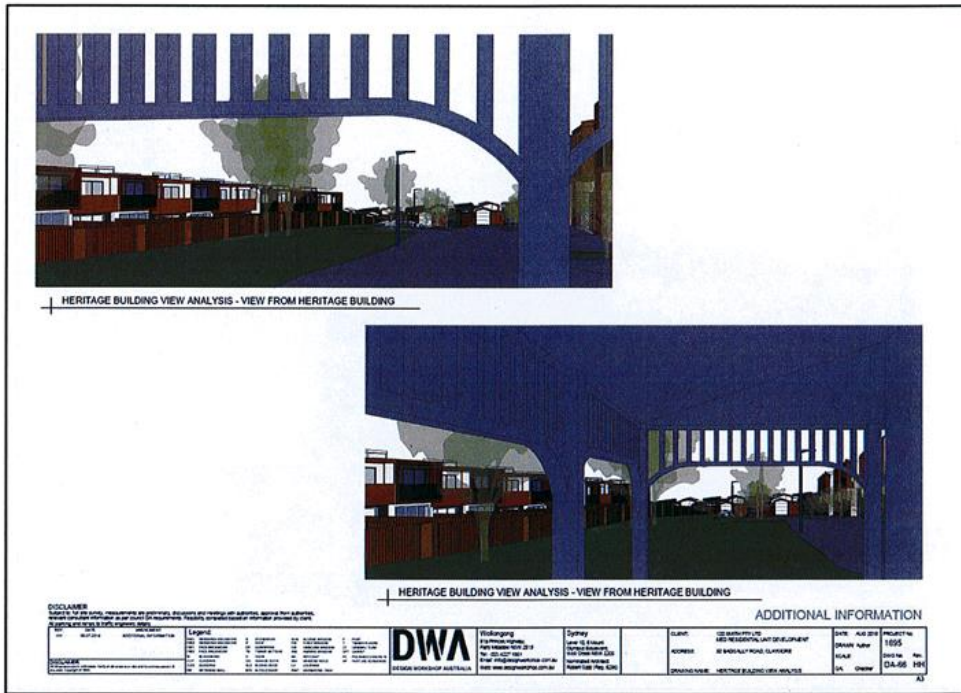


Figure 49. Heritage Building View Analysis, DA-66HH.



Figure 50. Heritage Building View Analysis, DA-67HH.

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CULTURAL BURLY HERITAGE IN THE 21ST CENTURY

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Figure 51. Master Plan, LA01.



Figure 52. Detail Plan – East, LA03.

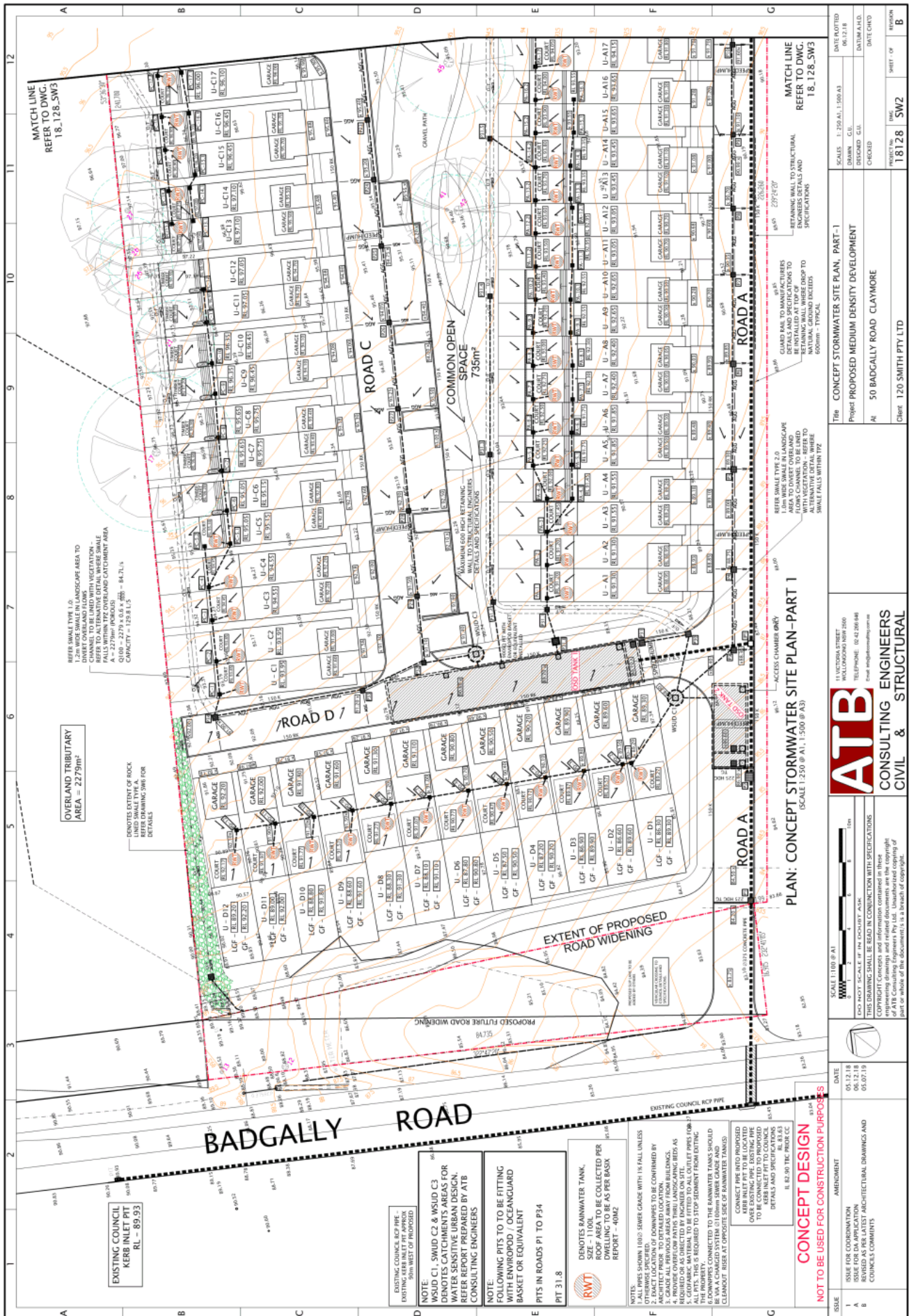
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Figure 53. Detail Plan – West, LA04.









# 50 Badgally Road, Claymore

## Proposed Residential Development

---

### Traffic and Parking Impact Assessment

Ref: 18184  
Date: July 2019  
Rev: B

## Transport and Traffic Planning Associates

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# 1.0 Introduction

---

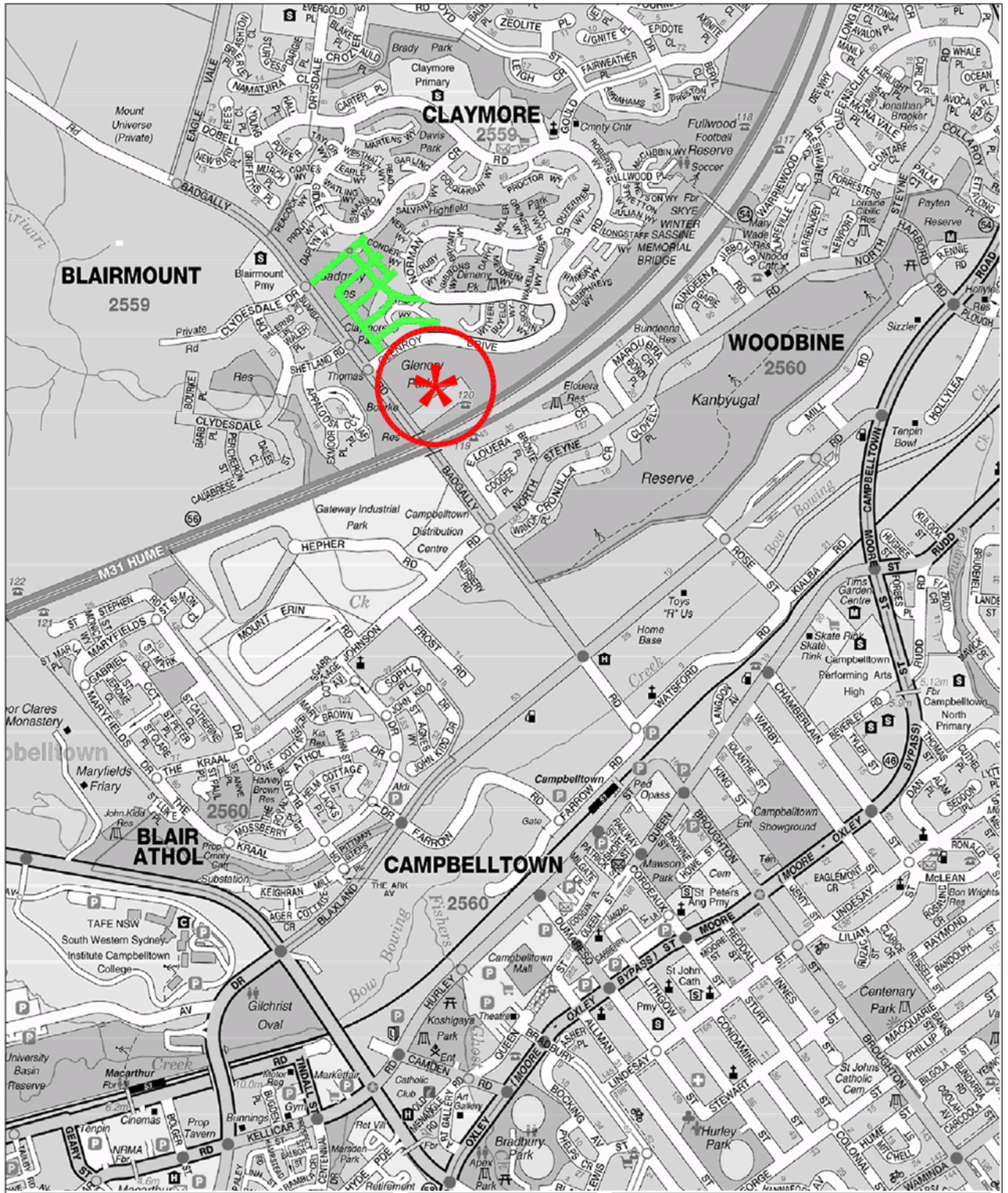
A Development Application (DA) was submitted to Campbelltown City Council for the proposed residential development in Badgally Road, Claymore (Figure 1). This report has been prepared to address Council's Request for Additional Information dated 22 May 2019.

The Claymore area is subject to a large-scale urban renewal process involving some 125 ha of existing developed public housing lands. The vision of the urban renewal is to:

- \* create a new sustainable 'living' community
- \* change the residential mix to one that presents a preferable balance and integration of public and private housing including seniors housing
- \* improve the quality of local retail and community facilities
- \* create a more permeable and better-connected road network of linked open spaces

When completed, the scheme will involve some 1,490 new dwelling units and some 1,096 former public housing dwellings together with a new retail centre and service station. The proposed development in Badgally Road involves 75 new medium-density dwellings. The purpose of this report is to:

- \* describe the Urban Renewal Scheme
- \* describe the site and the proposed development
- \* describe the existing and developing road, traffic and transport circumstances
- \* assess the proposed parking provision
- \* assess the potential traffic implications
- \* assess the proposed vehicle access, internal circulation, and servicing arrangements



**LEGEND**



**LOCATION**

**FIG 1**

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## 2.0 Proposed Development Scheme

---

### 2.1 The Renewal Scheme

The lands which are the subject of the proposed urban renewal scheme are shown on the diagrams overleaf and occupy an irregular shaped area of some 125 ha bound to the east by the Hume Highway and to the west by Badgally Road.

The lands were developed by the former Department of Housing in the '80s for public housing comprising 1,151 dwellings. These lands and the surrounding development comprise:

- \* the Claymore Shopping Centre and Community Centre
- \* the Claymore Public School
- \* the various parks and playing fields
- \* established residential lands adjoining to the north and west
- \* the rural residential lands extending to the south and west

The Renewal Scheme involves the removal of the great majority of the existing public housing dwellings and the rearranging of parts of the road system as indicated on the Concept Plan overleaf.

The revised road system comprises a range of road types relative to the intended functions, access, and use requirements. The renewal scheme is being introduced in stages and when completed, will comprise a total of some 1,630 dwellings with a range of dwelling types including 447 public housing dwellings comprising:

- 100 seniors living units
- 207 new dwellings
- 140 refurbished dwellings



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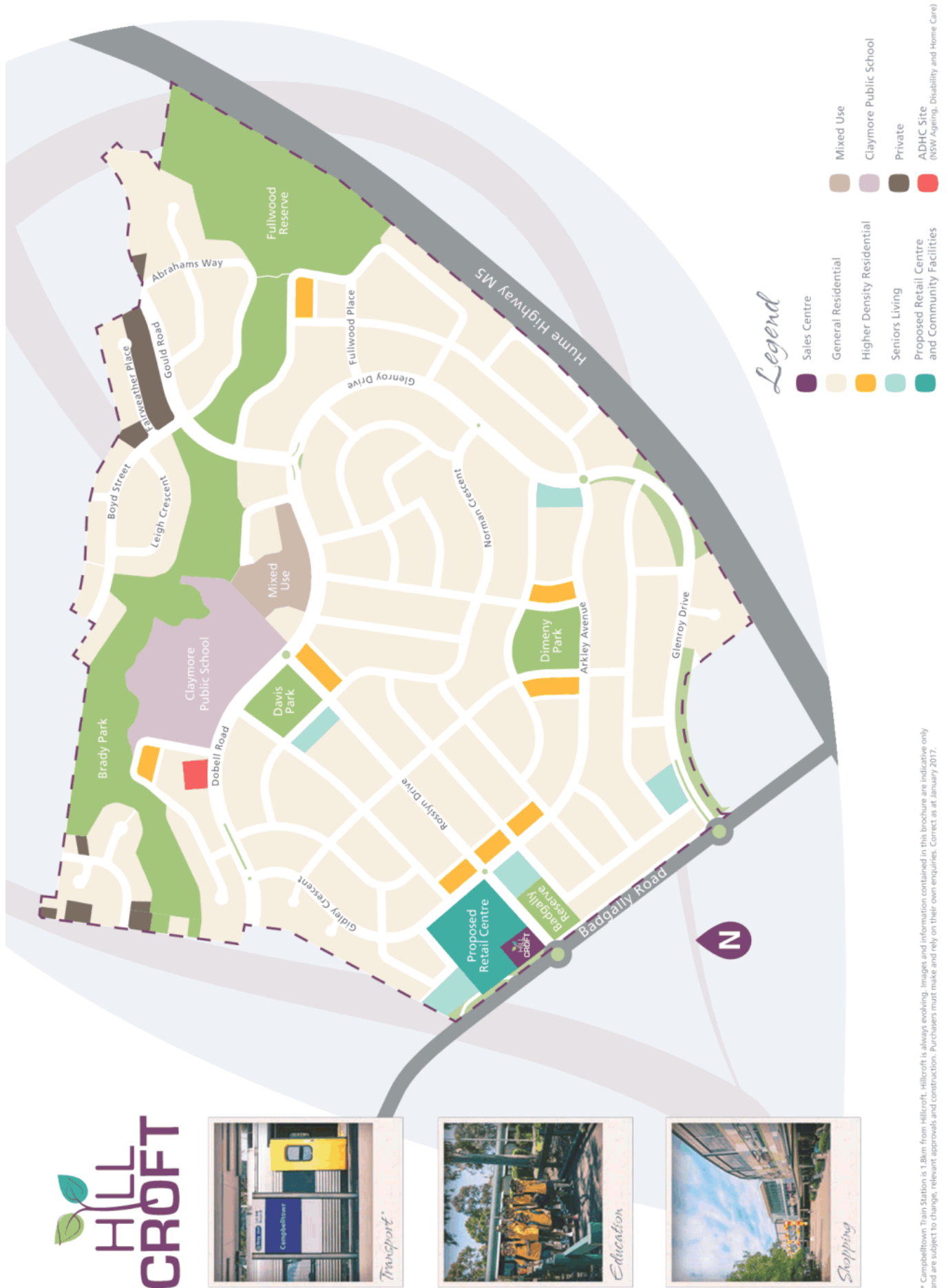


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\* Campbelltown Train Station is 1.8km from Hillcroft. Hillcroft is always evolving. Images and information contained in this brochure are indicative only and are subject to change, relevant approval and construction. Purchasers must make and rely on their own enquiries. Correct as at January 2017.



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### 2.2 Site and Existing Circumstances

The development site (Figure 2) is Lot 2 in DP 1017017 (as indicated on the architectural plans overleaf). The rectangular shaped site occupies a total area of some 23,420m<sup>2</sup> a frontage of some 83m to Badgally Road and some 245m to Hume Highway and is bounded to south and west by a future new subdivision access road system. The site is currently occupied by a large single dwelling.

### 2.3 Proposed Development

It is proposed to demolish the existing building on the site and to undertake some clearing and levelling (benching) to provide for the access road system and level building platforms. The proposed development will comprise 75 medium density dwellings. The local heritage items (Units No. B19 and C20) are proposed to be converted to two 2-bedroom dwellings.

The 2/3-bedroom medium density dwellings will each have a minimum of 1 single garage. All garages will be accessed by an internal road system. A 6.2m wide access road will connect to Badgally Road with a left-in and left-out only arrangement providing access to the internal road system.

Architectural details of the proposed development are provided on the plans prepared by Design Workshop Australia, which accompany the DA and are reproduced in part in Appendix A.



**LEGEND**



**SITE**

**FIG 2**



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# 3.0 Road Network and Traffic Conditions

---

## 3.1 Road Network

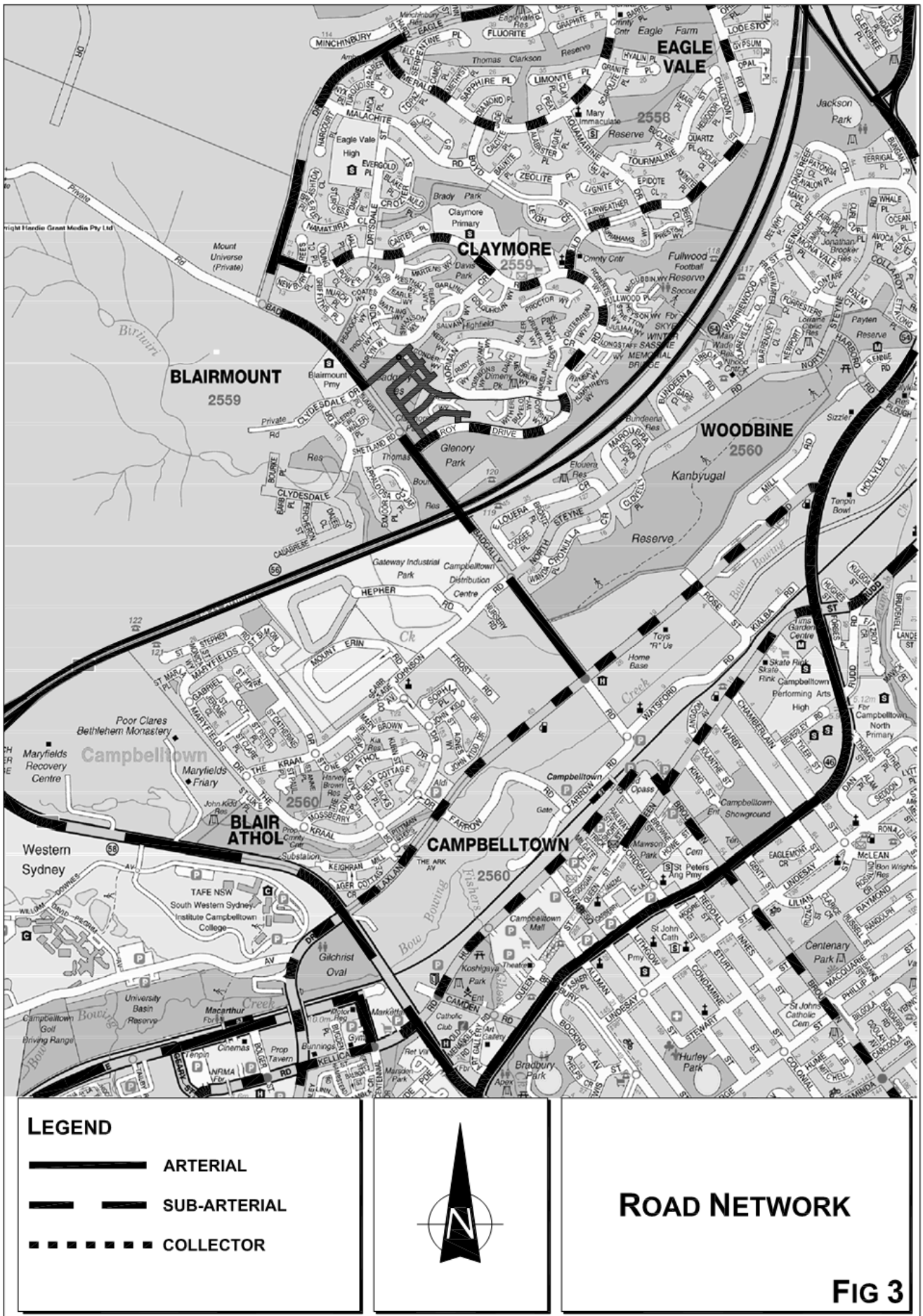
The road network serving the site (Figure 3) is undergoing change with much of the new Stage 1 and two roadways completed and comprise:

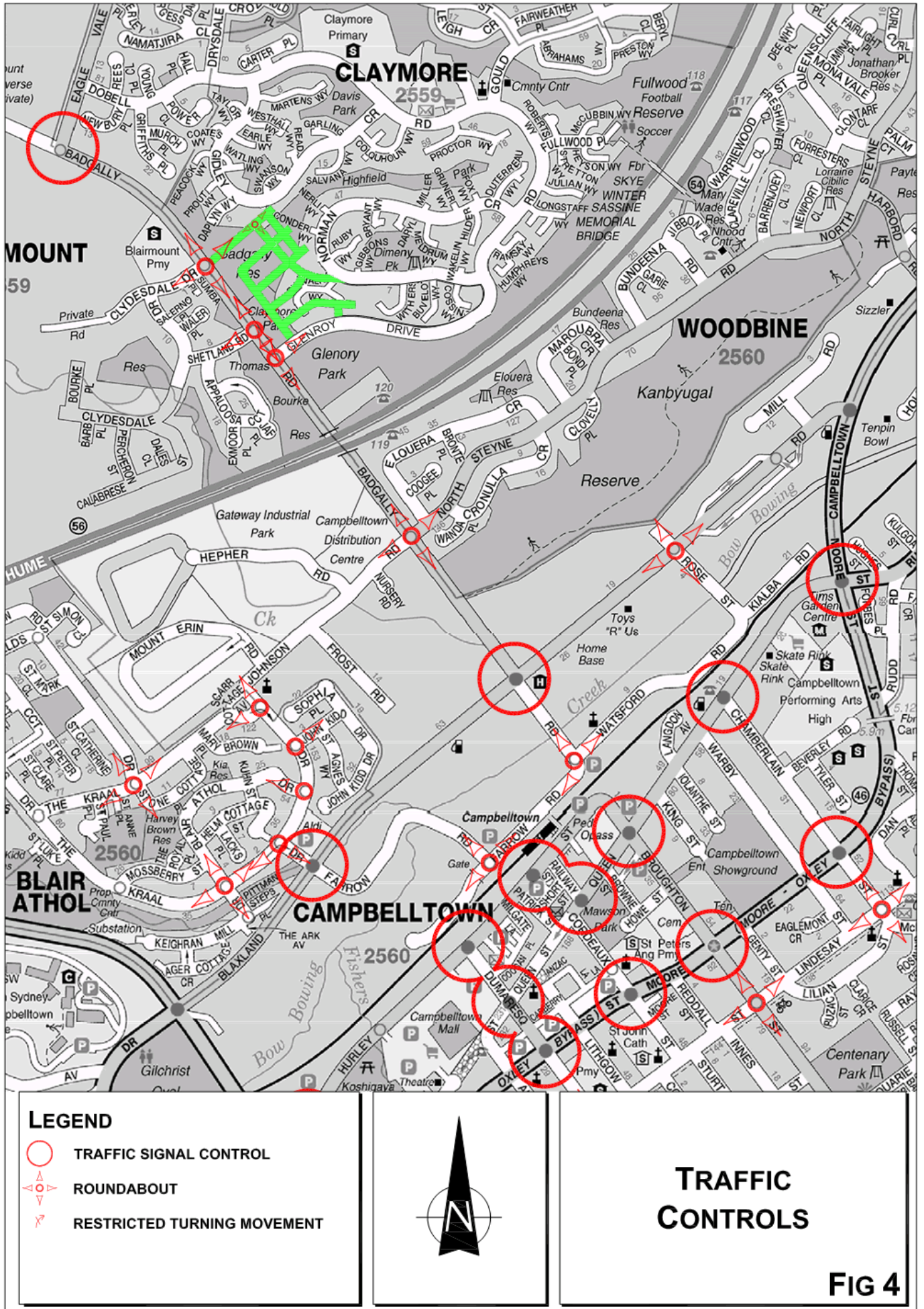
- \* *Hume Highway* – a State Road and arterial route linking which connects with M5 and M7 Motorways
- \* *Campbelltown Road* – a State Road and an arterial route linking northwards from Campbelltown to the Hume Highway at Crossroads and connecting with the South-Western Motorway
- \* *Badgally Road/Eagle Vale Drive* – a Regional Road and a sub-arterial route linking between Campbelltown and Raby
- \* *Dobell Road (Glenroy Drive)* – a major collector route along with the eastern and central parts of the Claymore area
- \* *Dowie Drive and Crowley Boulevard*– new local access roads through the area

## 3.2 Traffic Controls

The traffic controls on the road system (Figure 4) comprise:

- \* the roundabout at the Badgally Road/Dobell Road (Glenroy Drive) intersection
- \* the other roundabouts along Badgally Road at the Johnson Road, Shetland Road, Clydesdale Drive and Eagle Vale Drive intersections
- \* the roundabout at the Badgally Road and Arkley Avenue intersection





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- \* the 50 kmph residential speed limit on the local roads in the area with 40 kmph (part-time) restrictions adjacent to schools

## 3.3 Traffic Conditions

Details of the traffic flow relative to the higher order road network serving the development area are provided by data made available by RMS as well as data provided in the Transport Accessibility Study<sup>1</sup> undertaken for the Claymore Project. The data provided by RMS is expressed in terms of average annual daily traffic flows (AADT) as follows:

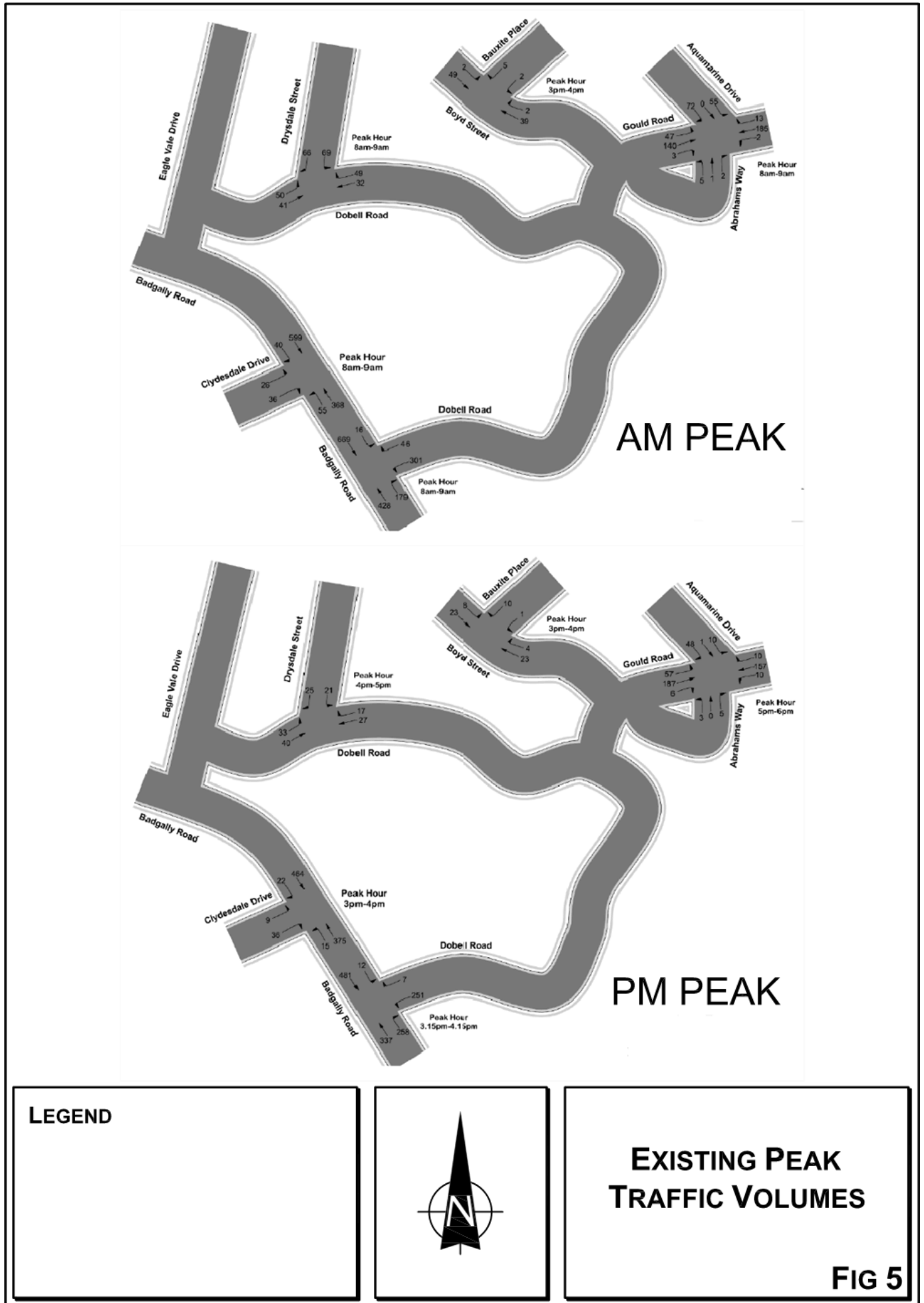
### Badgally Road, west of Blaxland Road

<b>AADT</b>	10,043 vtpd
<b>AM Peak</b>	542 vtph northbound; 1,165 vtph southbound
<b>PM Peak</b>	868 vtph northbound; 528 vtph southbound

The existing (pre-urban renewal commencement) AM and PM peak traffic volumes are reproduced from the Claymore Transport Accessibility Study overleaf and the Level of Service of the principal intersections and roads during these peak period is summarised in the following while the criteria for interpreting LOS is provided overleaf.

	Level of Service	
	AM Peak	PM Peak
Badgally Road/Dobell Road	A	A
Badgally Road/Clydesdale Drive	A	A
Dobell Road– east of Drysdale Street	A	A
Boyd Street – east of Bauxite PI	A	A
Gould Road– east of Aquamarine Drive	A	A

<sup>1</sup> Claymore Renewal Project  
Transport Accessibility Study  
Traffic Solutions June 2011





## Criteria for Interpreting Results of SIDRA Analysis

### 1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good	Good
'B'	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
'C'	Satisfactory	Satisfactory but accident study required
'D'	Operating near capacity	Near capacity and Accident Study required
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode
'F'	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode

### 2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below, which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabouts	Give Way and Stop Signs
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode

### 3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by **traffic signals**<sup>1</sup> both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a **roundabout or GIVE WAY or STOP signs**, satisfactory intersection operation is indicated by a DS of 0.8 or less.

<sup>1</sup> the values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs

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It is apparent that there are no existing road or intersection capacity problems and the primary access intersections are either provided with traffic signal or roundabout controls.

## 3.4 Transport Services

Public transport services for the area are provided by the services at Campbelltown and Minto Railway Stations and the bus service connections which run along Dobell Road.

### Rail Services

Rail services for three separate 'lines' pass through Campbelltown and Minto as follows:

- Southern Line

These services to/from the City via Granville operate with 11 trains per hour in peak periods and 6 per hour off-peak.

- East Hills Line

These services to/from the City via Sydenham operate with seven trains per hour in peak periods and two trains per hour off-peak.

- Cumberland Line

These services to/from Blacktown operate with two trains per hour.

The railway stations are located well to the east of the development site representing a significant 'walk' or a change of mode involving a bus, set-down/pick-up or commuter parking.

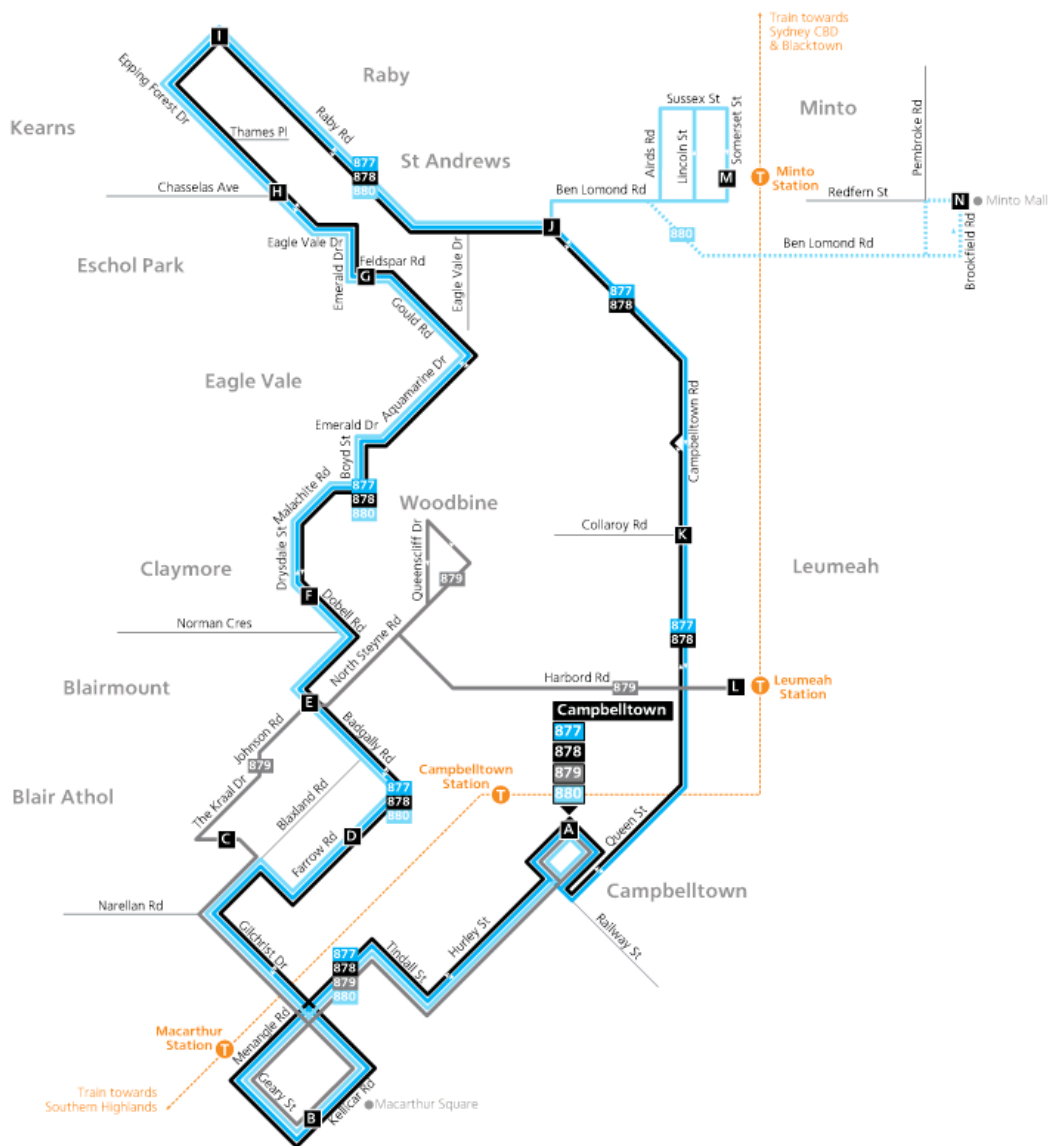
### Bus Services

Bus services operating through the development area (see overleaf) comprise:

- \* Route 877
- \* Route 878
- \* Route 880 – 30 min service between Campbelltown and Minto along Dobell Road

Bus route map

877, 878, 879, 880

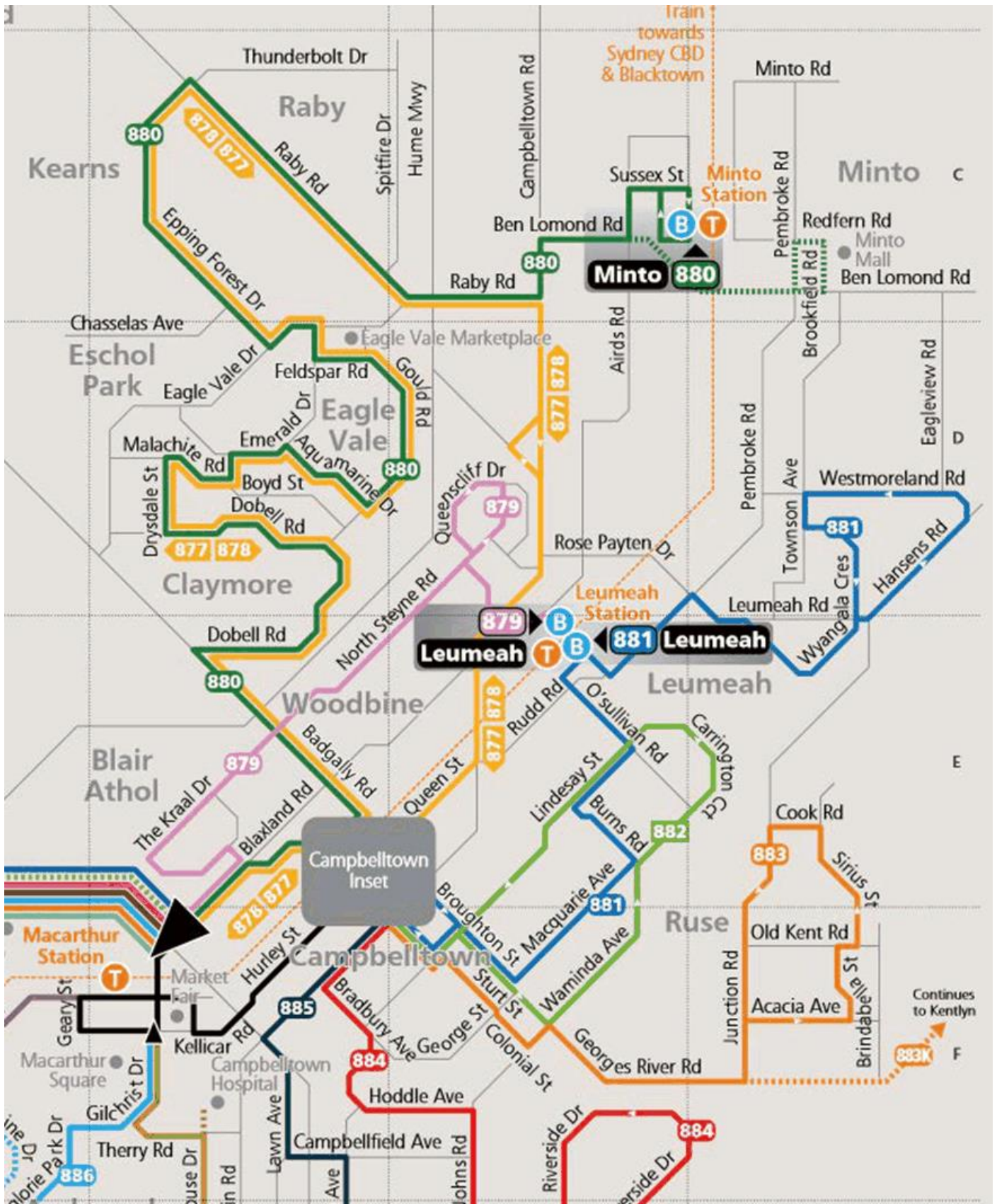


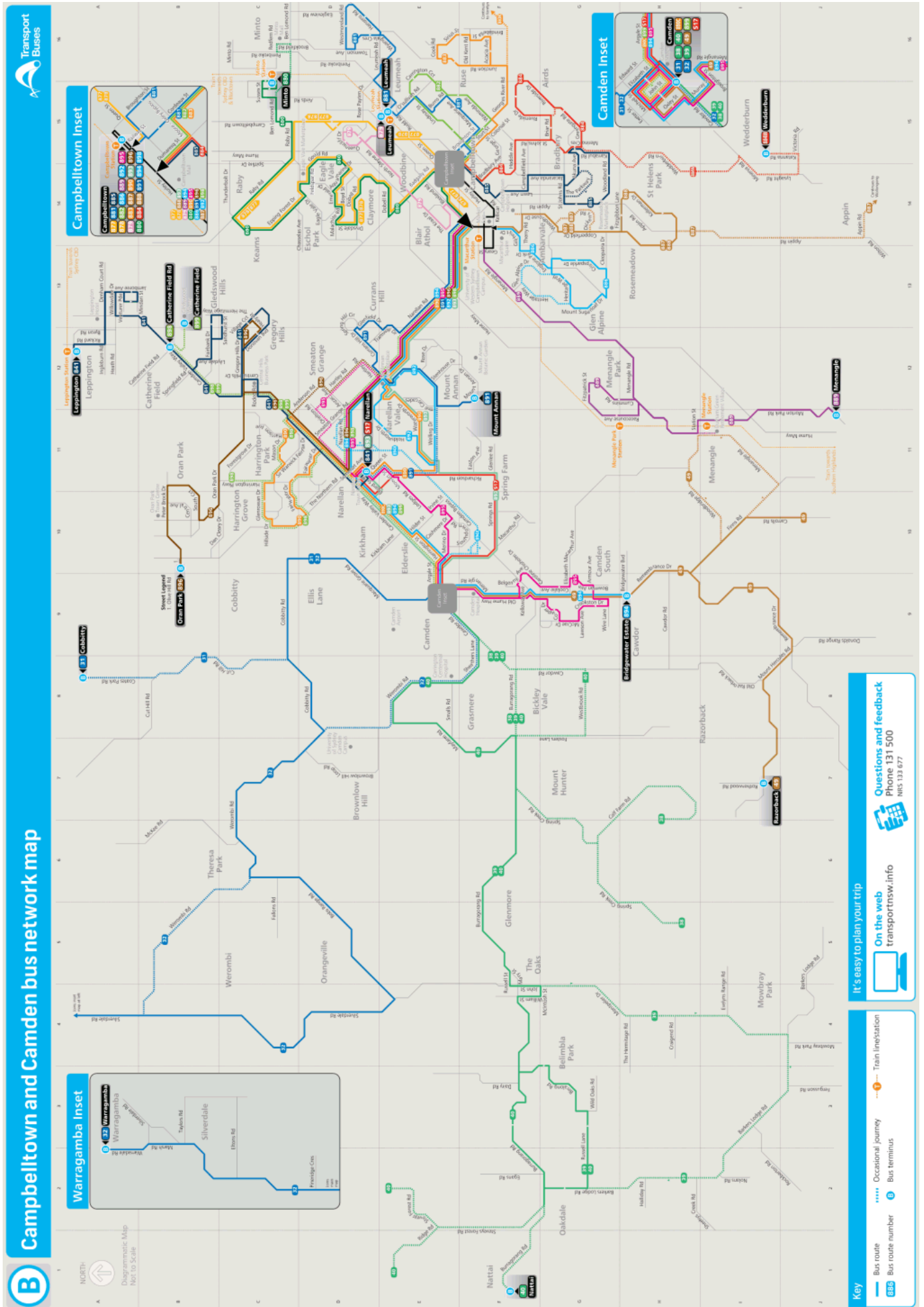
Legend

- Bus route
- 877 Bus route number
- A** Timing point
- T** Train line/station

Diagrammatic Map  
Not to Scale







## Transport and Traffic Planning Associates

### 3.5 Future Circumstances

Under the renewal process, significant elements of the road system in the area are being reconfigured to reflect contemporary subdivision layout in order to achieve the objectives of permeability, access, and safety.

The revised road network displays the attributes of contemporary subdivision road planning where:

- \* a grid system with multiple cross intersections is largely avoided
- \* there is convenient access to/from the major roads without due travel through the area

The carriageway along Badgally Road will be duplicated at some future time.

#### Traffic Conditions

The projected future traffic movements on the road network during the morning and afternoon peak periods are reproduced from the Claymore Transport Accessibility Study on the diagram overleaf. The assessed operational performance of the principal intersections and roads are summarised in the following:

	<b>AM</b>	<b>PM</b>
Badgally Road/Dobell Road (2 lanes each way)	A	A
Badgally Road/Clydesdale Drive (traffic signals)	B	B
Dobell Road– East of Badgally Rd	A/B	A

#### Transport Services

Consideration is being given by the bus service provider to upgrade bus servicing of the Claymore area as the renewal scheme is implemented while the Metropolitan Transport Plan nominates Badgally Road as a future strategic bus corridor by 2020.

## Transport and Traffic Planning Associates

# 4.0 Traffic

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## 4.1 Traffic Generation

### Low-Density Residential

The RMS Development Guidelines<sup>2</sup> specify the following peak hour traffic generation rates during the AM and PM peak periods, respectively:

- Low-density residential dwellings: 0.95 and 0.99 vtpd per unit

Based on the RMS rate, the proposed two single dwellings will result in a very minor peak hour traffic generation of 2 vehicle trips per hour.

### Medium Density Residential

The RMS Development Guidelines provide the following peak traffic generation criteria in relation to residential dwellings:

Medium Density (3-bed) - 0.65 vtpd per dwelling

Accordingly, the projected total traffic generation for the proposed 75 townhouse development during the morning and afternoon peak periods is as follows:

	AM		PM	
	IN	OUT	IN	OUT
Medium density dwellings	10	39	39	10

### Summary

The total traffic generation characteristics are as follows:

---

<sup>2</sup> TDT 2013/ 04a - Guide to Traffic Generating Developments Updated traffic surveys ,Roads and Maritime Services

### Transport and Traffic Planning Associates

	AM		PM	
	IN	OUT	IN	OUT
Medium density dwellings	10	39	39	10
Low density dwelling	0	2	2	0
<b>Total</b>	<b>10</b>	<b>41</b>	<b>41</b>	<b>10</b>

Application of the same RMS traffic generation rate to the proposed development would indicate a peak additional traffic generation outcome of up to some 51 vtph in the surrounding road network. Traffic generation of this order of magnitude is equivalent to up to 1 vtpm during the peak hours is considered to be relatively minor particularly in the context of Badgally Road arterial traffic flows and is not anticipated to have any adverse implications on the existing road network operation.



## Transport and Traffic Planning Associates

# 5.0 Parking

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### **Car Parking Requirement for Low-Density Residential Use**

Council's DCP 2015 specifies a minimum car parking provision rate of 1 undercover car parking space for a dwelling house. Application of these criteria would indicate a parking requirement of 2 undercover car spaces for the two dwelling houses. It is proposed to provide a total of a single garage for Unit No. B19 in satisfaction of the DCP requirement. An on-street parallel space will be provided for Unit No. C20 to maintain the character of the existing heritage building. While the on-street parallel space is not covered, it is easily accessible to and from the proposed dwelling.

### **Car Parking Requirement for Medium Density Residential Use**

Campbelltown City Council's DCP 2015 Volume 1 Section 5 and Section 8.4 specify car parking provision for medium density dwellings of a minimum of 1 single garage per dwelling. Residential visitor parking space is required at a rate of 1 space for every two dwellings.

Application of these criteria would indicate:

75 medium density dwellings	–	75 single garages
	–	38 visitor spaces

It is proposed to provide a total of 75 car spaces for the medium density dwellings and 38 visitor spaces (including one space suitable for a driver with disability) in satisfaction of the DCP requirements.

### **Bicycle Parking**

Council's DCP does not state any bicycle parking requirements. However, it is recommended that the bicycle parking for visitors to be provided in accordance with the suggested bicycle parking provision rates in the document 'Planning Guidelines for Walking and Cycling' (NSW Government 2004).

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The Planning Guidelines suggest a visitor (short term use) bicycle parking provision rate of 3%-5% of the total number of low and medium density dwellings.

Applying the above rate, the proposed development should provide a total of 3-4 bicycle spaces for visitors. The bicycle parking facility in the form of 4 racks is proposed to be located to the southwest of the heritage building with convenient access via the internal road system. Bicycle parking spaces will be designed in accordance with AS2890.3.

### Motorcycle Parking

Council's DCP does not state any motorcycle parking requirement. However, the development proposes one motorcycle space for residential use. The motorcycle space is designed to be 2.5m long by 1.2m wide.

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## 6.0 Car Parking, Access, Internal Circulation, and Servicing

---

### 6.1 Car Parking

The car parking has been designed to accord with AS 2890.1 and two as well as the DCP. A minimum of 3m x 6m will be provided for all enclosed garages. All external angled parking spaces have been provided at a minimum of 2.5m x 5.5m while the parallel spaces are designed at 2.5m x 6.7m.

### 6.2 Access

The proposed vehicle access arrangement comprises a 6.2m wide, combined ingress/egress driveway on the Badgally Road frontage located a suitable distance (200m south) from the Dobell Road intersection. The design of the proposed driveway complies with the requirements of AS2890.1 and the DCP as well as there will be suitable sight distances available.

Based on the consultation with Council, the development proposes left-in, left-out access on Badgally Road and a 20m long and 0.5m wide raised concrete median along Badgally Road at the proposed driveway. A 20m long deceleration lane is also proposed along Badgally Road to allow inbound development traffic to slow down to a safer speed to make a left into the site or right turn without affecting the main flow of traffic on Badgally Road.

The length of deceleration (including diverge taper) requirement is provided in Table 5.2 of Guide to Road Design Part 4A: Unsignalised and Signalised Intersections. The deceleration lane design is based on a design speed on approach of 60kph and an exit speed of 40kph. As such, a minimum of 30m deceleration lane is proposed. The deceleration lane and median on the existing and future Badgally Road with the road widening in place, are illustrated in the architectural plans (See Appendix A).

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Table 5.2: Deceleration distances required for cars on a level grade

Design speed of approach Road (km/h)	Length of deceleration D – including diverge taper T										Diverge length Ld3 for lane widths	
	Stop condition <sup>1</sup>		Design speed of exit curve (km/h) <sup>2</sup>								3.5 m <sup>4</sup>	3.0 m <sup>4</sup>
	0	0	20	30	40	50	60	70	80	90		
	Comf. 2.5 m/s <sup>2</sup>	Max. 3.5 m/s <sup>2</sup>	Comfortable average rate of deceleration 2.5m/s <sup>2</sup>									
50	40	30	30	25	15						33	27
60	55	40	50	40	30	15					40	33
70	75	55	70	60	50	40	20				47	40
80	100	70	95	85	75	60	45	25			54	44
90	125	90	120	110	100	85	70	50	25		60	50
100	155	110	150	140	130	115	100	80	55	30	67	57
110	185	135	180	175	160	150	130	110	90	60	74	62

1. Rates of deceleration are: 2.5 m/s<sup>2</sup> for comfortable deceleration; 3.5 m/s<sup>2</sup> is the maximum for design purposes.
2. Speed of exit curve depends on radius and crossfall (Figure 5.2).
3. Distance L<sub>r</sub> assumes a lateral rate of movement of 1.5 m/s.
4. Example lane widths – use actual lateral shift distance of vehicle.

Notes:

The pink shading indicates that the deceleration lengths given are greater than the diverge length. The length of the deceleration lane should be based on these values.

The grey shading indicates that the diverge length is greater than the deceleration length. In these cases, the length of the deceleration lane should be based on the diverge length (the values shown in yellow shading).

Adjust for grade using Table 5.3.

All lengths are in metres.

Source: Based on Austroads (2005).

The provision of a left-in left-out on Badgally Road provides faster and direct access to/from a sub-arterial route. With more than 85 percent of residents expected to travel on Badgally Road towards Campbelltown, such arrangement aligns well with the projected traffic distribution. It is noted that the Badgally Road widening between Eagle Vale Drive and Northern Steyne Road (from 2 lanes to 4 lanes) will be completed by late 2020. As part of the widening, the intersection of Badgally Road/Glenroy Drive will remain as a roundabout. Exiting traffic can access Badgally Road directly without having to go through the intersection of Badgally Road/Glenroy Drive while the entering traffic from Badgally Road south can easily access the site via a U-turn at the roundabout of Badgally Road/Glenroy Drive.

### 6.3 Internal Circulation

The access driveways and ramps will accord with the AS 2890.1 and DCP design criteria. The geometry of internal roadways and intersections will not present any

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unsatisfactory vehicle conflict circumstances, and details of the turning path assessment are provided in Appendix B.

The general two-way arrangements will provide a flexible and accessible outcome for residential traffic.

## 6.4 Servicing

Refuse will be removed from 3 communal bin storage and compactor locations within the site by a 10.4m private contractor's waste vehicle, with the waste collection taking place outside the peak periods, i.e., early mornings. There will be no reversing of the waste vehicle with the communal bin storage arrangement. The vehicle will stop temporarily on the road with the waste collection personnel wheeling the bins out onto the road for collection. As such, the refuse collection activities will have minimal impact on the internal road network.

Details of the turning path assessment for this vehicle accessing the communal bin storage areas are provided in Appendix B.

The occasional requirement for other service vehicles (e.g., furniture vans) will be accommodated by the available on-street visitor spaces as is normal for residential developments of this nature.

The proposed internal road arrangement can also accommodate the 10.1m long NSW Fire Brigades' appliance.

## Transport and Traffic Planning Associates

# 7.0 Transport Accessibility

---

Residents will be able to access the existing bus services which operate along Badgally Road, walking along and crossing the new access roadway towards the two bus stops (Badgally Road at and opposite Thomas Burke Reserve).

In the future, when bus services are extended along Badgally Road, residents will be able to cross Badgally Road with the aid of the proposed traffic signal control at the Roslyn Drive/Clydesdale Drive intersection.

The development proposes a 1.2m footpath along the southwestern boundary of the site. The developer will liaise with Council to extend the existing footpath at the southeast corner of the Badgally Road/Dobell Road intersection towards the proposed footpath as part of the Council's Footpath Development and Maintenance Policy. Such footpath provision will allow pedestrians from the proposed development to conveniently and safely access the existing bus stops on both sides.

It is apparent that satisfactory provision is available for transport accessibility both in the short and long term.

## Transport and Traffic Planning Associates

# 8.0 Conclusion

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The assessment undertaken in relation to the proposed residential development in the southern part of the Claymore Renewal Area has concluded that:

- ❖ there will be no adverse traffic implication and the development outcome in traffic terms will be entirely compatible with the Masterplan assessment
- ❖ the parking provision will be suitable and appropriate
- ❖ the vehicle access will be suitably located and will not present any adverse traffic or safety implications

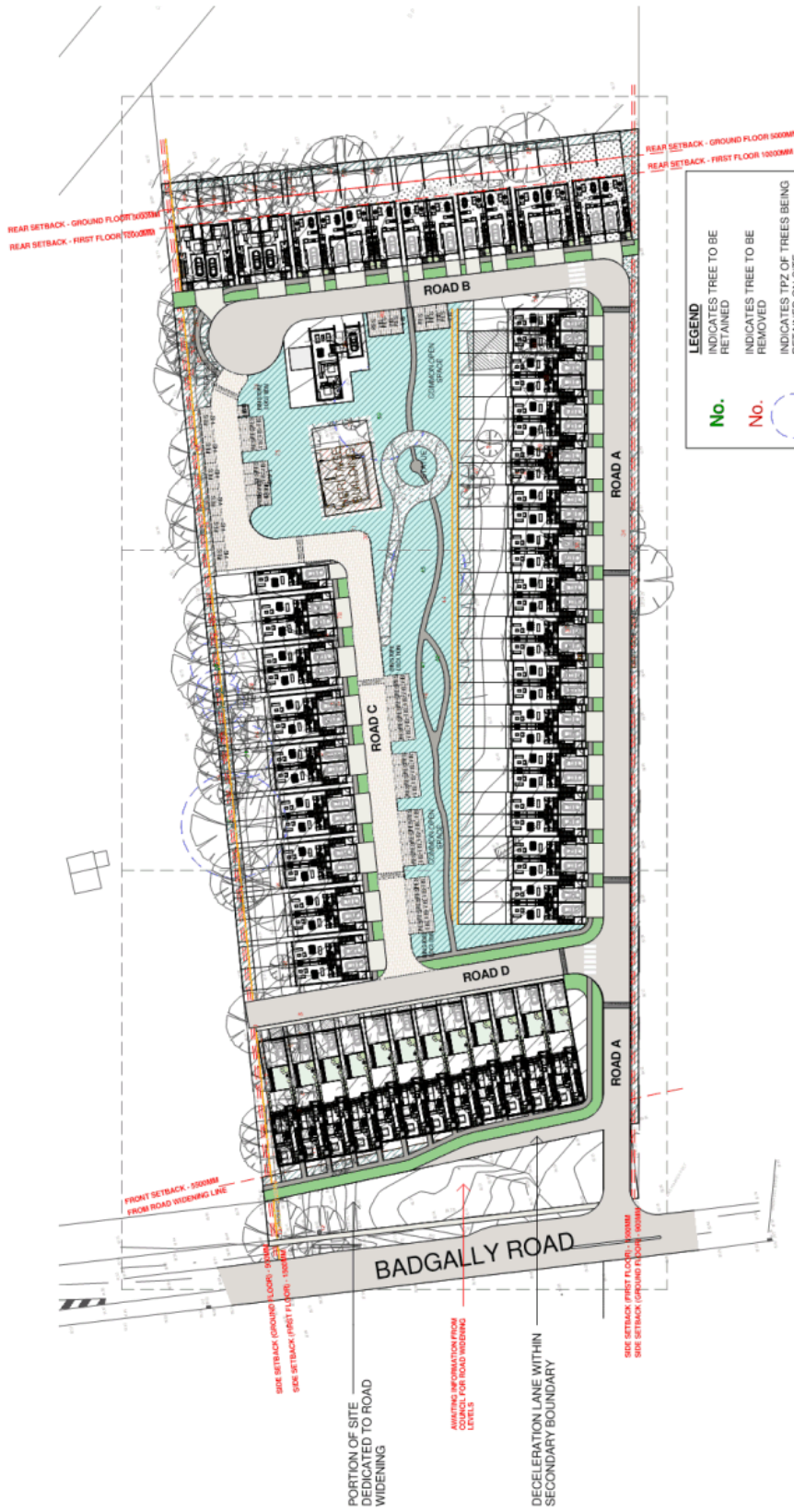
Transport and Traffic Planning Associates

## Appendix A

# Architectural Plans







MASTERPLAN - GROUND FLOOR  
1:500

**ADDITIONAL INFORMATION**

DATE: AUG 2018 PROJECT No. 1695  
 DRAWN: NT, CS DWG No. DA-15  
 SCALE: 1:1000 Rev. HH  
 CLIENT: 120 SMITH PTY LTD  
 ADDRESS: 50 BADGALLY ROAD, CLAYMORE  
 DRAWING NAME: MASTERPLAN - GROUND FLOOR

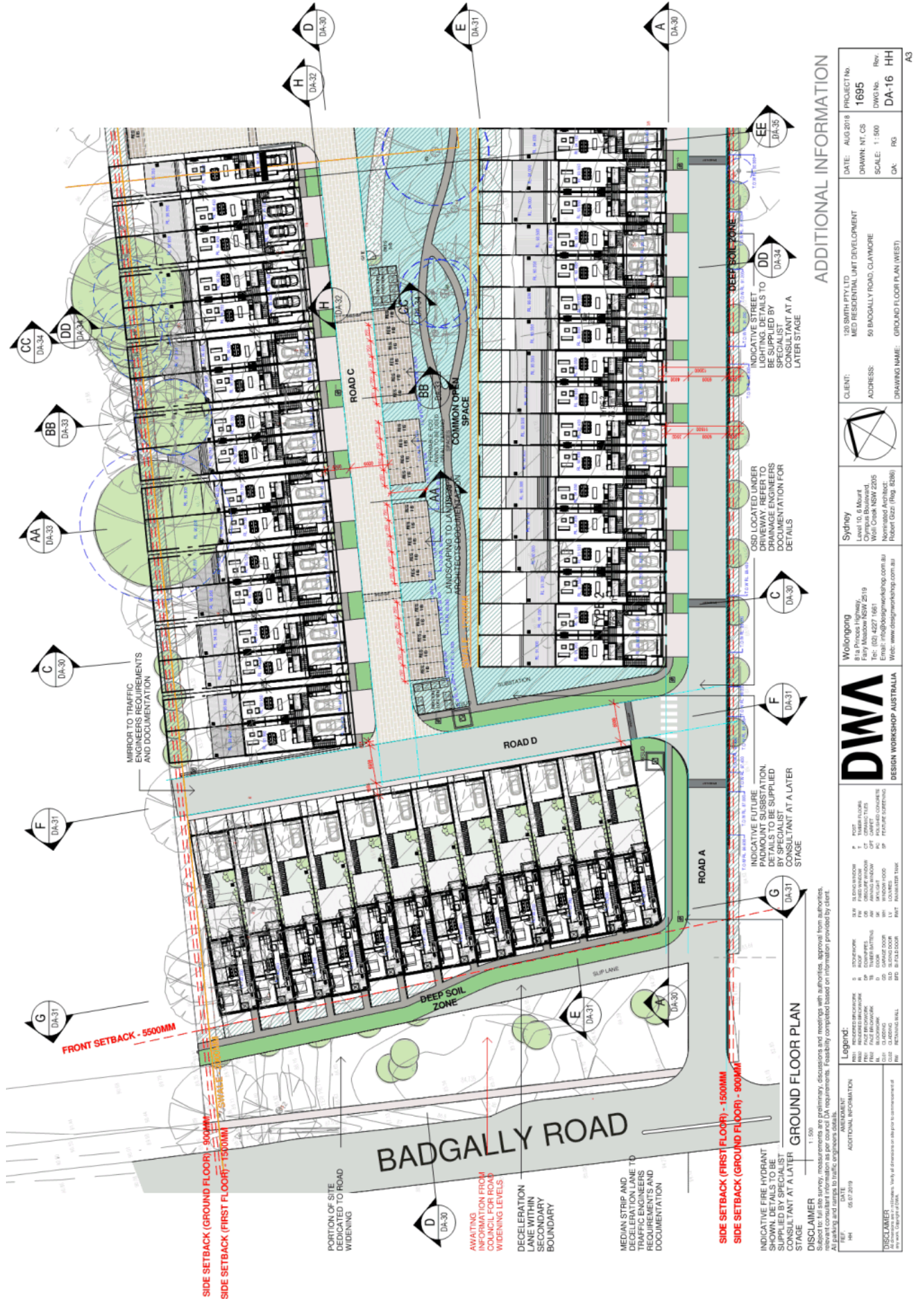
**Sydney**  
 Level 10, 6 Mount Olympus Boulevard, North Sydney NSW 1585  
 Robert Glez (Reg. 82386)  
 Email: robert@designworkshop.com.au  
 Web: www.designworkshop.com.au

**Wollongong**  
 8 Ira Pines Highway, Wollongong NSW 2519  
 Tel: (02) 4227 1488  
 Email: robert@designworkshop.com.au  
 Web: www.designworkshop.com.au



**Legend:**

1	ROOF	1	POST
2	ROOF	2	TERRACE FLOORING
3	ROOF	3	CONCRETE
4	ROOF	4	CONCRETE
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6	ROOF	6	CONCRETE
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ADDITIONAL INFORMATION

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MED RESIDENTIAL UNIT DEVELOPMENT	DWG No. Rev: HH
ADDRESS: 50 BADGALLY ROAD, CLAYMORE	SCALE: 1:500
DRAWING NAME: GROUND FLOOR PLAN (WEST)	OK: PG
SYDNEY Level 10, 6 Mount Olympus Boulevard, Sydney NSW 1585 Phone: (02) 4327 1646 Email: info@dwa.com.au Web: www.designworkshop.com.au	ROBOTT ARCHITECTS Robott Group (Pty) Ltd Level 10, 6 Mount Olympus Boulevard, Sydney NSW 1585 Phone: (02) 4327 1646 Email: info@robott.com.au Web: www.robott.com.au
WOLLONGONG 8 Ira Princes Highway, Wollongong NSW 2519 Phone: (02) 8222 1646 Email: info@designworkshop.com.au Web: www.designworkshop.com.au	<b>DWA</b> DESIGN WORKSHOP AUSTRALIA
LEGEND: 1:500 ADDITIONAL INFORMATION	LEGEND: 1:500 ADDITIONAL INFORMATION
DISCLAIMER This plan is for information only. It is not to be used for any other purpose without the written consent of the architect. The architect is not responsible for any errors or omissions in this plan or for any consequences arising therefrom. The architect is not responsible for any errors or omissions in this plan or for any consequences arising therefrom.	DISCLAIMER This plan is for information only. It is not to be used for any other purpose without the written consent of the architect. The architect is not responsible for any errors or omissions in this plan or for any consequences arising therefrom. The architect is not responsible for any errors or omissions in this plan or for any consequences arising therefrom.





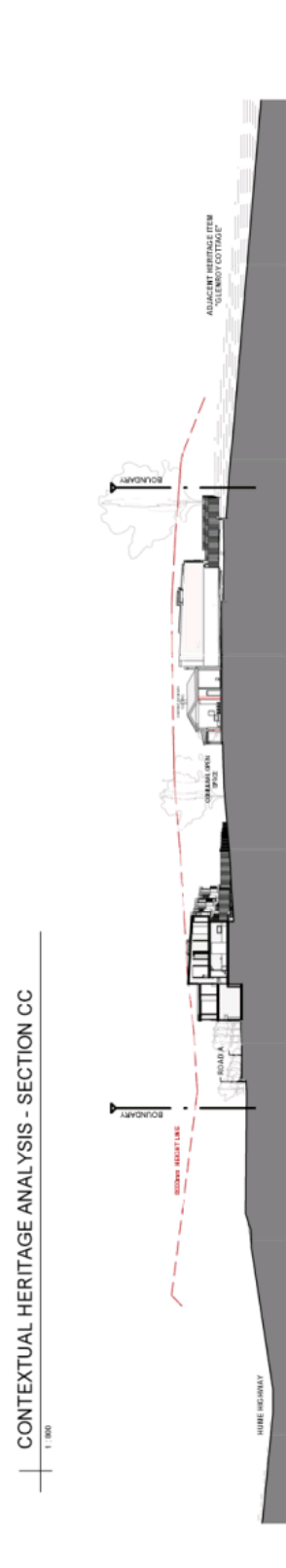
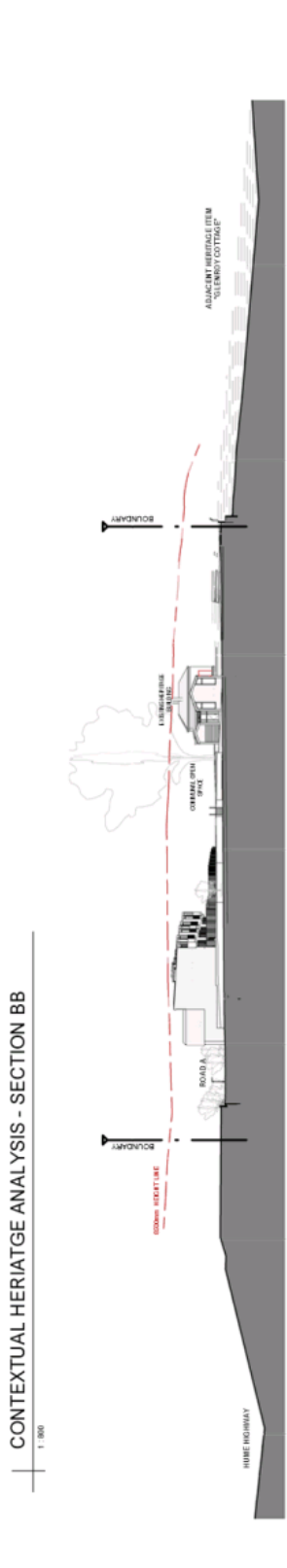












**DISCLAIMER**  
Subject to full site survey, measurements are preliminary, decisions and meetings with authorities, approval from authorities, relevant consultant information as per current DA requirements. Feasibility completed based on information provided by client.  
All parking and zoning to traffic engineering standards.

DATE: 05/07/2019  
PROJECT No: 1695  
DRAWN: NT, CB  
DWG No.: DA-59  
SCALE: 1:500  
Rev.: HH  
QA: RG

**ADDITIONAL INFORMATION**

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MED RESIDENTIAL UNIT DEVELOPMENT  
50 BAGGALLY ROAD, CLAYMORE

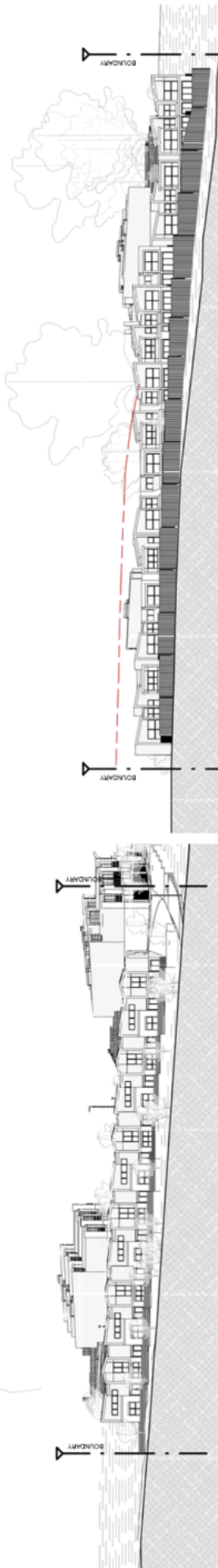
SYDNEY  
Level 10, G Mount  
Olympus Boulevard  
Sydney NSW 2008  
National Architect  
Robert Gee (Reg 8296)

WOLLONGONG  
81a Princes Highway,  
Wollongong NSW 2519  
Tel: (02) 4227 1661  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au

**DWA**  
DESIGN WORKSHOP AUSTRALIA

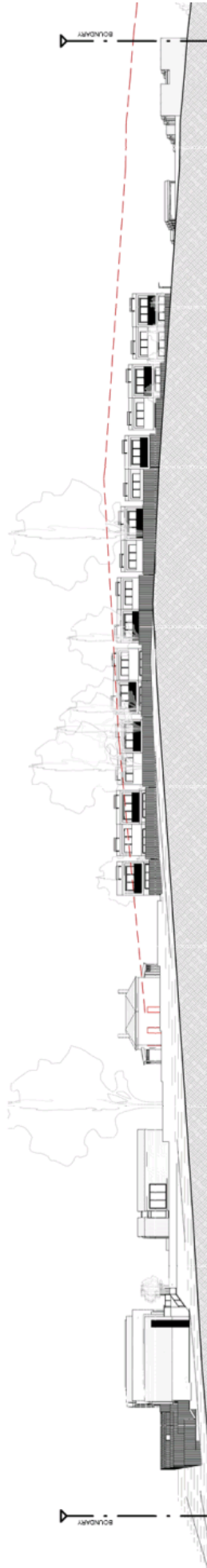
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DRAWING NAME: CONTEXTUAL HERITAGE ANALYSIS - SECTIONS

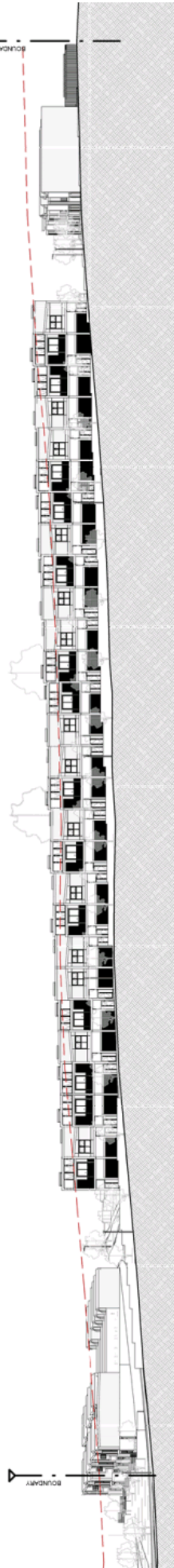


WESTERN ELEVATION  
1:500

EASTERN ELEVATION  
1:500



NORTHERN ELEVATION  
1:500



SOUTHERN ELEVATION  
1:500

**DISCLAIMER**  
1:500  
Subject to site survey, measurements are preliminary, decisions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.  
All parking and ramps to traffic engineer's satisfaction.

DATE: 05/07/2019

ADDITIONAL INFORMATION	
DATE	05/07/2019
PROJECT No.	1695
DRAWN: NT, CB	
SCALE: 1:500	
DWG No.	NP-03
Rev.	HH

Legend:	
REVISION	DATE
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02	05/07/2019
03	05/07/2019
04	05/07/2019
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**DWA**  
DESIGN WORKSHOP AUSTRALIA

**Wollongong**  
81a Princes Highway,  
City of Wollongong, 2519  
Tel: (02) 4227 1601  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au

**Sydney**  
Level 10, G Mount  
Olympus Boulevard, 2005  
Tel: (02) 9231 1000  
Email: info@designworkshop.com.au  
Web: www.designworkshop.com.au

**CLIENT:**  
120 SMITH PTY LTD  
MED RESIDENTIAL UNIT DEVELOPMENT  
50 BAGGALLY ROAD, CLAYMORE

**ADDRESS:**

**DRAWING NAME:** NOTIFICATION PLAN - SITE ELEVATIONS

ADDITIONAL INFORMATION

**DATE:** AUG 2018  
**PROJECT No.** 1695  
**SCALE:** 1:500  
**DWG No.** NP-03  
**Rev.** HH

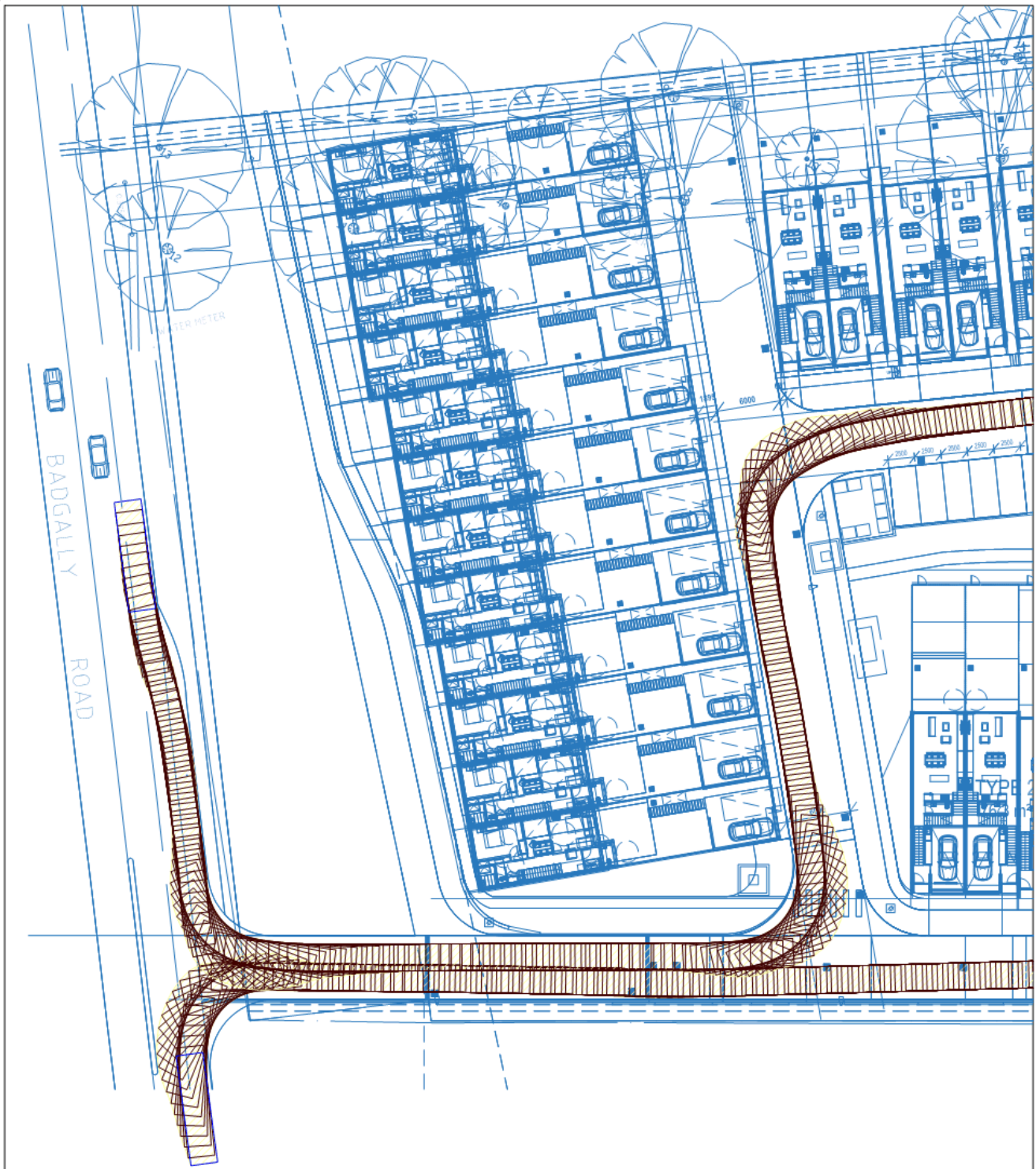
A3

Transport and Traffic Planning Associates

## Appendix B

# Turning Path Assessment





**LEGEND**

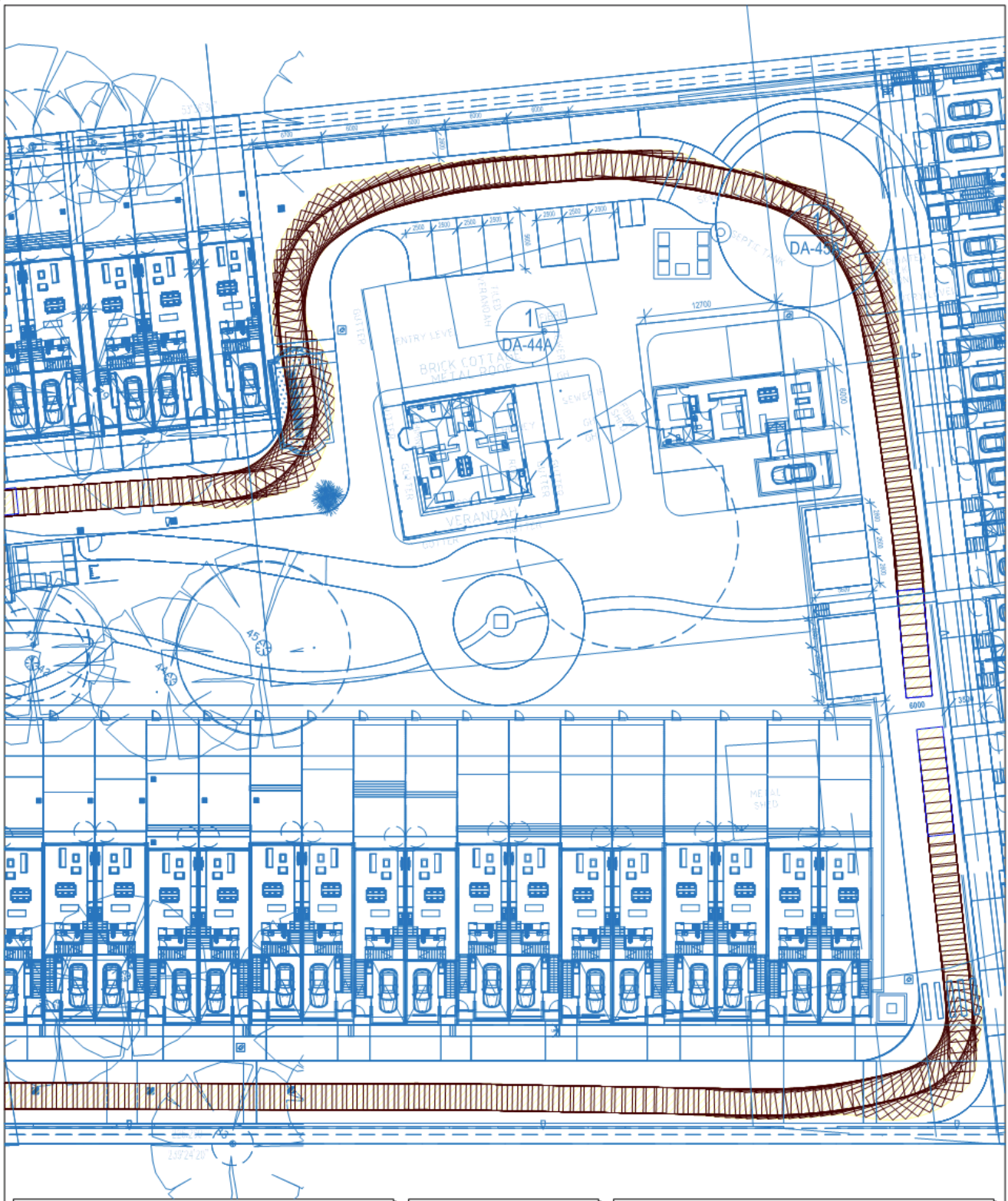
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS  
OF A 10.4m VEHICLE  
CIRCULATING THE SITE**

**SP 1**





**LEGEND**

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS  
OF A 10.4m VEHICLE  
CIRCULATING THE SITE**

**SP 3**



50 Badgally Road, Claymore NSW  
Residential Development

## OPERATIONAL WASTE MANAGEMENT PLAN

10/12/2018  
Report No. 1049  
Revision B

Client

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Malolo Medium Density

Architect

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Design Workshop Australia

Suite 704, 31 Market Street, Sydney  
www.designworkshop.com.au  
T 02 4227 1661 • E info@designworkshop.com.au

**ELEPHANTS FOOT RECYCLING SOLUTIONS • ABN 70 001 378 294**  
44-46 Gibson Ave Padstow NSW 2211  
www.elephantsfoot.com.au

T +612 9780 3500 • F +612 9707 2588  
E info@elephantsfoot.com.au



## OPERATIONAL WASTE MANAGEMENT PLAN

### SCOPE

This waste management plan (WMP) only applies to the **operational** phase of the proposed development; therefore the requirements outlined in this WMP must be implemented during the operational phase of the site and may be subject to review upon further expansion for, and/or changes to the development.

The waste management of the **construction** and **demolition** phases of the development are not addressed in this report. It is EFRS's understanding that a construction and demolition WMP will be completed by a separate party appointed by the developer, and submitted separately to this report. Typically, the head contractor of the site will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements.

### REVISION REFERENCE

Revision	Date	Prepared by	Reviewed by	Description	Signed
A	19/11/2018	A Armstrong	E Saidi	Draft	/
B	10/12/2018	A Armstrong	E Saidi	Final	/

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**OPERATIONAL WASTE MANAGEMENT PLAN**


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## GLOSSARY OF TERMS

<b>TERM</b>	<b>DESCRIPTION</b>
<i>Collection Area/Point</i>	The identified position or area where garbage or recyclables are actually loaded onto the collection vehicle
<i>Composter</i>	A container/machine used for composting specific food scraps
<i>Crate</i>	A plastic box used for the collection of recyclable materials
<i>Garbage</i>	All domestic waste (Except recyclables and green waste)
<i>Green Waste</i>	All vegetated organic material such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers
<i>L</i>	Litre(s)
<i>Liquid Waste</i>	Non-hazardous liquid waste generated by commercial premises that is supposed to be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste)
<i>LRV</i>	Large rigid vehicle described by AS 2890.2-2002 Parking facilities – Off-street commercial vehicle facilities as heavy rigid vehicle (HRV)
<i>Mobile Garbage Bin(s) (MGB)</i>	A waste container generally constructed of plastic with wheels with a capacity in litres of 120, 240, 360, 660, 1000 or 1100
<i>MRV</i>	Medium rigid vehicle
<i>Putrescible Waste</i>	Component of the waste stream liable to become putrid. Usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal and organic products.
<i>Recycling</i>	Glass bottles and jars – PET, HDPE and PVC plastics; aluminium aerosol and steel cans; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines
<i>SRV</i>	Small rigid vehicle as in AS 2890.2-2002 Parking facilities – Off-street commercial vehicle facilities, generally incorporating a body width of 2.33



## OPERATIONAL WASTE MANAGEMENT PLAN

### INTRODUCTION

Elephants Foot Recycling Solutions (EFRS) has been engaged to prepare the following waste management plan for Design Workshop Australia on behalf of Maiolo Medium Density for the operational management of waste generated by the residential development located at 50 Badgally Road, Claymore NSW.

Waste management strategies and auditing are a requirement for new developments to provide support for the building design, and promote strong sustainability outcomes for the building. It is EFRS's belief that a successful waste management strategy contains three key objectives:

- i. **Promote responsible source separation** to reduce the amount of waste that goes to landfill, by implementing convenient and efficient waste management systems*
- ii. **Ensure adequate waste provisions and robust procedures** that will cater for potential changes during the operational phase of the development*
- iii. **Compliance** with all relevant council codes, policies, and guidelines.*

To achieve these objectives, this WMP identifies the different waste streams likely to be generated during the operational phase of the development. Associated information includes: how the waste will be handled and disposed of, details of bin sizes/quantities and waste rooms, descriptions of the proposed waste management equipment used and information on waste collection points and frequencies.

It is essential that this waste management plan is integrated into the overall management of the building and clearly communicated to all relevant stakeholders.



## OPERATIONAL WASTE MANAGEMENT PLAN

### REPORT CONDITIONS

The purpose of this report is to document a Waste Management Plan (WMP) as part of a development application and is supplied by EFRS with the following limitations:

- Drawings, estimates and information contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by the client, and third parties including Council and government information. The assumptions based on the information contained in the WMP is outside the control of EFRS;
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building managements approach to educating residents and tenants regarding waste management operations and responsibilities;
- The building manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;
- The report has been prepared with all due care however no assurance or representation is made that the WMP reflects the actual outcome and EFRS will not be liable to you for plans or outcomes that are not suitable for your purpose, whether as a result of incorrect or unsuitable information or otherwise;
- EFRS offer no warranty or representation of accuracy or reliability of the WMP unless specifically stated;
- Any manual handling equipment recommended should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply;
- Design of waste management chute equipment and systems must be approved by the supplier.
- EFRS cannot be held accountable for late changes to the design after the WMP has been submitted to Council.
- EFRS will provide specifications and recommendations on bin access and travel paths within the WMP, however it is the architect's responsibility to ensure the architectural drawings meet these provisions.
- EFRS are not required to provide information on collection vehicle head heights, internal manoeuvring and loading requirements. These variables are considered to be within the applicable Traffic Consultants domain.
- Council are subject to changing waste and recycling policies and requirements at their own discretion. Information in this operational waste management plan is correct as of November 2018.

This WMP has only been finalised once the Draft Watermark has been removed. If the Draft Watermark is present, the information in the WMP is not confirmed.

## OPERATIONAL WASTE MANAGEMENT PLAN

### DEVELOPMENT SUMMARY

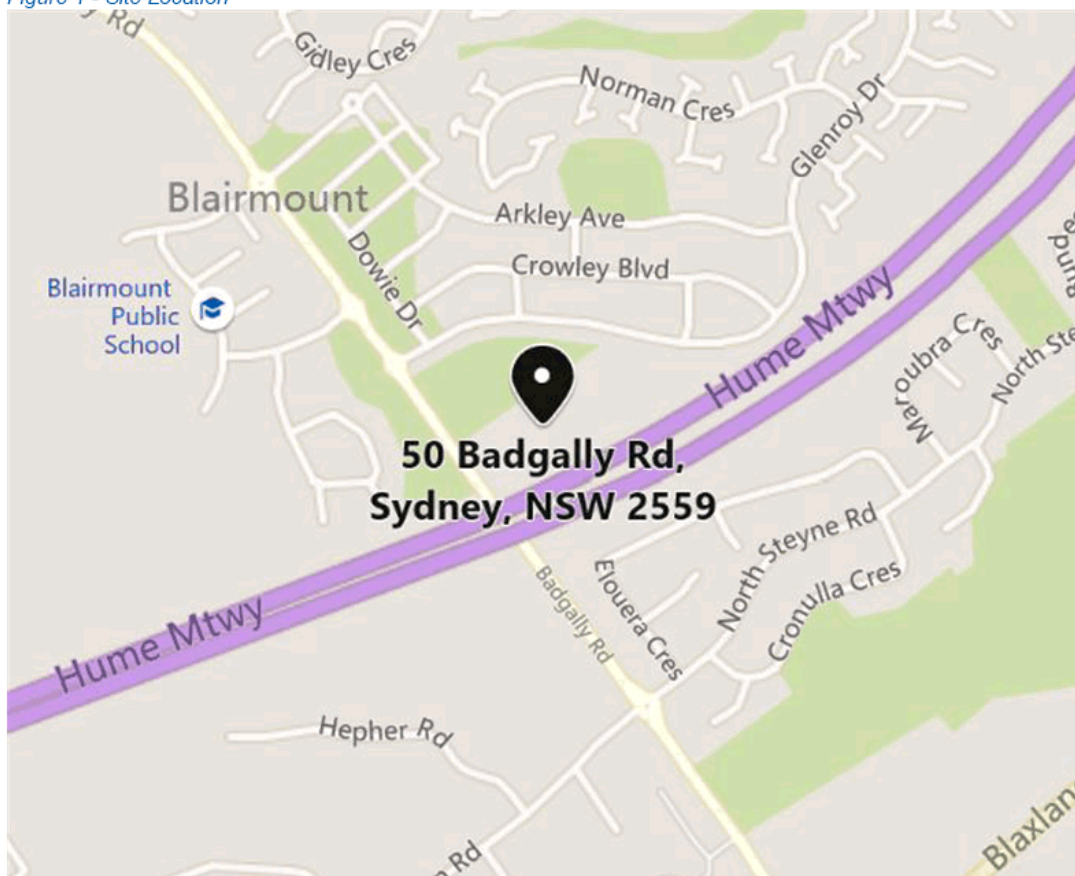
The proposed development falls under the LGA of Campbelltown Council, and consists of 75 townhouses in total

All figures and calculations are based on area schedules as advised by our client and shown on architectural drawings.

### SITE LOCATION

The site is located at 50 Badgally Road, Claymore, as shown in Figure.1. The site has vehicular access via Badgally Road.

Figure 1 - Site Location





## OPERATIONAL WASTE MANAGEMENT PLAN

### CAMPBELLTOWN COUNCIL

The garbage and recycling will be guided by the acceptance criteria of Campbelltown Council and will be collected by a private waste contractor. All waste facilities and equipment are to be designed and constructed to be in compliance with the Campbelltown Development Control Plan, Australian Standards and statutory requirements.

#### COUNCIL OBJECTIVES

The garbage and recycling will be guided by the services and acceptance criteria of Campbelltown Council. All waste facilities and equipment are to be designed and constructed to be in compliance with the Campbelltown Development Control Plan, *Council Advices*, Australian Standards and statutory requirements.

- Ensure that each dwelling has adequate space to manage waste.
- Ensure that buildings provide appropriate facilities to manage waste.
- Ensure that residential amenity is not impacted by waste systems and collection services.

#### COUNCIL REQUIREMENTS

**Access** – Ensure waste systems are easy to use and collection vehicles are able to access buildings to safely remove waste and recycling;

**Safety** – Ensure safe practises for storage, handling and collection of waste and recycling;

**Pollution Prevention** – Prevent stormwater pollution that may occur as a result of poor waste storage and management practises;

**Noise Minimisation** – Provide acoustic insulation to the waste service facilities or residential units adjacent to or above chutes, waste storage facilities, chute discharge, waste compaction equipment and waste collection vehicle access points;

**Ecologically Sustainable Development (ESD)** – Promote the principles of ESD through resource recovery and recycling leading to a reduction in the consumption of finite natural resources;

**Hygiene** – Ensure health and amenity for residents, visitors and workers in the Campbelltown Council.



## OPERATIONAL WASTE MANAGEMENT PLAN

### STAKEHOLDER ROLES AND RESPONSIBILITIES

The following table demonstrates the primary roles and responsibilities of the respective stakeholders:

*Table 1: Stakeholder Roles and Responsibilities*

Roles	Responsibilities
Residents/Tenants	<ul style="list-style-type: none"> <li>• Dispose of all garbage and recycling in the allocated MGBs provided;</li> <li>• Ensure adequate separation of garbage and recycling; and</li> <li>• Compliance with the provisions of Council and the WMP.</li> <li>• Preventing storm water pollution by taking necessary precautions (securing bin rooms, preventing overfilling of bins)</li> <li>• Cleaning and transporting of bins as required;</li> <li>• Organising, maintaining and cleaning the general and recycled waste holding area;</li> <li>• Organising both garbage and recycled waste pick-ups as required;</li> <li>• Organising replacement or maintenance requirements for bins;</li> <li>• Presenting bulky goods collection when required; and</li> <li>•</li> </ul>
Council	<ul style="list-style-type: none"> <li>• Provide a reliable and appropriate waste collection service;</li> <li>• Provide feedback to residents in regards to contamination of recyclables; and</li> <li>• Work with residents to customise waste systems where possible.</li> </ul>
Building Contractors	<ul style="list-style-type: none"> <li>• Removing all construction related waste offsite in a manner that meets all authority requirements.</li> </ul>





## OPERATIONAL WASTE MANAGEMENT PLAN

### RESIDENTIAL WASTE MANAGEMENT

The *Campbelltown (Sustainable City) Development Control Plan 2015* has been referenced to calculate the total number of bins required for the residential units. Calculations are based on generic figures; waste generation rates may differ according to the residents' waste management practice.

#### ESTIMATED WASTE VOLUMES AND BIN PROVISIONS

The following shows the estimated volume (L) of garbage, recycling & green waste generated by each townhouse:

Garbage:	140L per townhouse per week
Recycling:	120L per townhouse per week
Green Waste:	120L per townhouse per week

Based on the assumptions stated above, the overall bin quantities required for the entire development has been calculated and presented below:

Garbage:	<b>12 x 1100L</b> bins collected weekly
Recycling:	<b>9 x 1100L</b> bins collected weekly
Green Waste:	<b>9 x 1100L</b> bins collected weekly.

#### WASTE MANAGEMENT

Three communal waste areas will be distributed throughout the site (see *APPENDIX A.1 for Waste Area Locations*), with each townhouse being allocated a corresponding waste area to dispose of their waste and recyclables.

Tenants will be required to manually dispose of their waste and recyclables into the allocated 1100L bins in their designated waste area. All tenants will be supplied with a key to access their corresponding waste area.

A private waste contractor will be engaged to service all bins onsite via a wheel-in/wheel-out arrangement from each waste area.

#### SOURCE SEPERATION

Waste avoidance, recovery and reuse of discarded materials and responsible management of hazardous waste are all crucial elements of sustainable development. Effective waste management practices in residential developments significantly improve environmental, social, and economic outcomes on both a local and regional scale, and should be integrated into the waste management processes.

#### GENERAL WASTE (GARBAGE)

Residents will be supplied with a collection area in each unit to deposit garbage and collect recyclable material suitable for one day's storage. This is typically located generally in the kitchen, under bench or similar alternate area. Residents should wrap or bag their garbage; bagged garbage should not exceed 3kg in weight or 35cm x 35cm x 35cm in dimension.

#### RECYCLING

**Recycling must not be bagged.** It is recommended that residents use a crate or dedicated bin for collecting recyclables within the allocated residential space provided to ensure correct separation.



## OPERATIONAL WASTE MANAGEMENT PLAN

### GREEN WASTE

Green waste from private courtyards and balconies (lawn trimmings and plant cut offs) is to be disposed of into the designated 1100L bins in the corresponding waste area. This waste must not be bagged.

### BULKY GOODS

Residents will be required to store their own bulky waste items internally (e.g. whitegoods, furniture, etc.). On designated collection days, these items must be transferred to the nominated kerbside area for Council servicing.

Ideally, bulky waste should be collected on a regular schedule so that the storage area does not become overfull and so that residents know when to place items out for collection. Councils may arrange for more frequent collections of bulky waste, however collection frequencies vary among different local government areas.

Donations to charitable organisations should be encouraged. Clean, sound furniture and household goods etc. are highly sought after to provide for the disadvantaged. Donations can be arranged with the assistance of the building manager/waste caretaker.

### E-WASTE

E-waste (electronic waste) refers to any equipment containing printed circuit boards. E-Waste must not be placed in standard garbage or recycling, E-Waste can potentially contaminate soil and surrounding water bodies if not disposed of correctly. The best disposal method for e-waste is recycling through a E-waste service or council.

### CHEMICAL WASTE

Chemical wastes (e.g. cleaning chemicals, paints, oils solvents) pose detrimental effects to human health and the environment if not disposed of correctly. Chemical wastes should be disposed of at a suitable licensed disposal facility. No liquid wastes or wash down waters should be disposed of via the storm water drainage system.

Residents will be responsible for arranging the correct disposal of chemical waste. Household Chemical CleanOut events are held at various locations throughout NSW on specified dates throughout the year. Locations and dates are subject to change. It is recommended that the building caretaker confirm these details with their local Council.

### ORGANIC WASTE AND COMPOSTING

Recycling organic waste, such as food scraps and garden materials, dramatically reduces the quantity of waste being diverted to land fill and thus reduces residents' ecological footprint. Compost material can also be returned to the soil as a rich fertilizer and improve plant growth and the overall health of surrounding vegetation. It is recommended that a space for composting and worm farming is made available for all residents in a communal facility or in small private courtyards (see *APPENDIX C.1*). Composting facilities are to be sited on an unpaved area with soil depth of at least 300mm. Residents may also choose to purchase and install apartment style compost bin where practical and self-manage these systems (see *APPENDIX C.2 and APPENDIX C.3*).

### PUBLIC SPACES

Public spaces are likely to generate minimal waste from the people utilizing these areas. Waste and recycling bins should be placed throughout public spaces to minimise the likelihood of littering.



## OPERATIONAL WASTE MANAGEMENT PLAN

Areas allocated to outdoor public space will be managed by Council, unless another type of arrangement has been agreed with by Council. Public waste bins placed in outdoor public areas will be serviced and maintained by Council.

Public areas on commercial developments such as food courts will be managed by building management. Cleaners will circulate throughout the food court while clearing tables and will remove waste as required.

## WASTE AREAS

Each waste area must hold the required quantity of bins (based off weekly collections), sufficient room to adequately access and manoeuvre bins and a bin wash down area.

The required quantity of bins for each waste area is:

General waste:	4 x 1100L bins
Recycling:	3 x 1100L bins
Green waste:	3 x 1100L bins
Total:	10 x 1100L bins

The required GFA for each waste area is **28m<sup>2</sup>**.

Note: Any requirement for increasing storage capacity can be done by increasing the frequency of collections for all waste.

## WASTE AREA CONSTRUCTION REQUIREMENTS

The waste areas will be required to contain the following facilities to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- Waste room floor to be sealed with a two pack epoxy;
- Waste room walls and floor surface is flat and even;
- All corners coved and sealed 100mm up, this is to eliminate build-up of dirt;
- For residential: a hot and cold water facility with mixing facility and hose cock must be provided for washing the bins;
- Any waste water discharge from bin washing must be drained to sewer in accordance with the relevant water board. (Sydney water);
- Tap height of 1.6m;
- Storm water access preventatives (grate);
- All walls painted with light colour and washable paint;
- The room must be natural or mechanically ventilated;
- Light switch installed at height of 1.6m;
- Waste rooms must be well lit (sensor lighting recommended);
- If 660l or 1100l bins are utilised, 2 x 820mm (minimum) door leafs must be used;
- All personnel doors are hinged, lockable and self-closing;
- Conform to the building code of Australia, Australian standards and local laws; and
- Childproofing and public/operator safety shall be assessed and ensured

## SIGNAGE

The site manager/caretaker is responsible for waste area signage including safety signage. Appropriate signage must be prominently displayed on doors, walls and above all bins, clearly stating what type of waste or recyclables is to be placed in the bin underneath.



## OPERATIONAL WASTE MANAGEMENT PLAN

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### VENTILATION

Waste and recycling rooms must have their own exhaust ventilation system either;

- Mechanically - exhausting at a rate of 5L/m<sup>2</sup> floor area, with a minimum rate of 100L/s minimum; or
- Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area

Mechanical exhaust systems shall comply with AS1668 and not cause any inconvenience, noise or odour problem.

### COLLECTION OF WASTE

A private waste contractor will be engaged to service all bins to an agreed collection schedule.

The contractor enter the site from Badgally Road and pull up on the street adjacent to each waste area (3 stops in total) and service all bins via a wheel-in/wheel-out arrangement.

It is Elephant Foot's understanding that the collection areas have been reviewed by a traffic consultant to confirm the swept paths and load requirements.

It must be ensured that that the collection vehicle (and other trucks if required) can enter and exit the site in a forward direction. The final number of truck collection will depend on management of waste contract.



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**OPERATIONAL WASTE MANAGEMENT PLAN**

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**USEFUL CONTACTS**

Elephants Foot Recycling Solutions does not warrant or make representation for goods or services provided by suppliers.

**CAMPBELLTOWN COUNCIL CUSTOMER SERVICE**

Phone: (02) 4645 4000

Email: [council@campbelltown.nsw.gov.au](mailto:council@campbelltown.nsw.gov.au)**SULO MGB** (MGB, Public Place Bins, Tugs and Bin Hitches)

Phone: 1300 364 388

**CLOSED LOOP** (Organic Dehydrator)=

Phone: 02 9339 9801

**ELECTRODRIVE** (Bin Mover)

Phone: 1800 333 002

Email: [sales@electrodrive.com.au](mailto:sales@electrodrive.com.au)**RUD** (Public Place Bins, Recycling Bins)

Phone: 07 3712 8000

Email: [Info@rud.com.au](mailto:Info@rud.com.au)**CAPITAL CITY WASTE SERVICES** (Private Waste Services Provider)

Phone: 02 9399 9999

**REMONDIS** (Private Waste Services Provider)

Phone: 13 73 73

**SITA ENVIRONMENTAL** (Private Waste Services Provider)

Phone: 13 13 35

**NATIONAL ASSOCIATION OF CHARITABLE RECYCLING ORGANISATIONS INC.**  
(NACRO)

Phone: 03 9429 9884

Email: [information@nacro.org.au](mailto:information@nacro.org.au)**PURIFYING SOLUTIONS** (Odour Control)

Phone: 1300 636 877

Email: [sales@purifyingsolutions.com.au](mailto:sales@purifyingsolutions.com.au)**MOVEXX** (Bin Movers)

Phone: 1300 763 444

**AUSCOL** (Recycling Oils & Animal Fats)

Phone: 1800 629 476

**Elephants Foot Recycling Solutions** (Chutes, Compactors and eDiverter Systems)

44 – 46 Gibson Avenue

Padstow NSW 2211

Free call: 1800 025 073

Email: [info@elephantsfoot.com.au](mailto:info@elephantsfoot.com.au)**Kompact Equipment** (Waste Handling Equipment Sales, Servicing and Maintenance)

1/81 Governor Macquarie Drive

Chipping Norton NSW 2170

Free call: 1800 566 722

Email: [info@kompactequipment.com.au](mailto:info@kompactequipment.com.au)



OPERATIONAL WASTE MANAGEMENT PLAN

APPENDICES

APPENDIX A ARCHITECTURAL DRAWING EXCERPTS

APPENDIX A.1 SITE PLAN DISPLAYING WASTE AREAS



Excerpt: Design Workshop Australia, DA-15 Rev W 06.12.2018 - Masterplan



**OPERATIONAL WASTE MANAGEMENT PLAN**

**APPENDIX B PRIMARY WASTE MANAGEMENT PROVISIONS**

**APPENDIX B.1 TYPICAL BIN SPECIFICATIONS**

Mobile containers with a capacity from 500L to 1700L with four wheels



Dome or flat lid containers

Bin Type	660 Litre MGB	770 Litre MGB	1100 Litre MGB	1300 Litre MGB	1700 Litre MGB
Height	1250	1425	1470	1480	1470
Depth	850	1100	1245	1250	1250
Width	1370	1370	1370	1770	1770

**OPERATIONAL WASTE MANAGEMENT PLAN**

**APPENDIX B.2 SIGNAGE FOR WASTE & RECYCLING BINS**

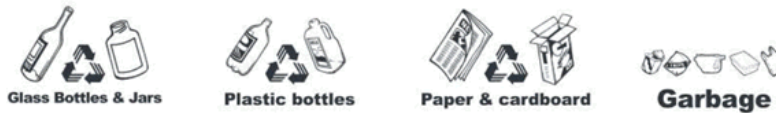
**WASTE SIGNS**

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the Department of Environment and Heritage.

Example wall posters



Example bin lid stickers



**SAFETY SIGNS**

The design and use of safety signs for waste rooms and enclosures should comply with AS1319 Safety Signs for Occupational Environment. Safety signs should be used to regulate and control safety behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Each development will need to decide which signs are relevant for its set of circumstances and service provided.

Examples of Australian Standards:



Australian Standards are available from the SAI Global Limited website ([www.saiglobal.com](http://www.saiglobal.com)).

*SOURCE: Department of Environment and Climate Change NSW 2008, Better Practice Guide for Waste Management in Multi-Unit Dwellings*

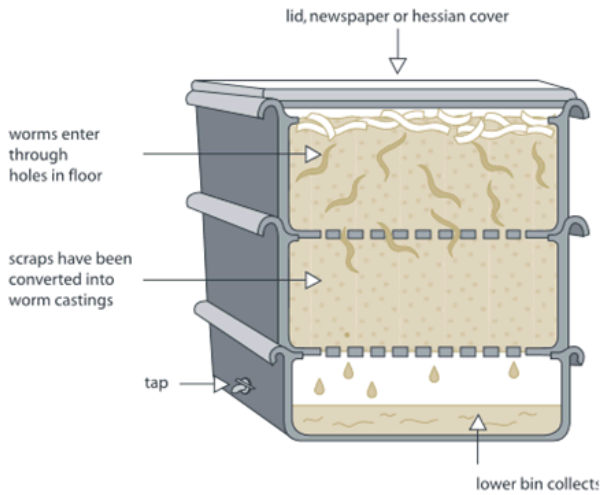


**OPERATIONAL WASTE MANAGEMENT PLAN**

**APPENDIX C SECONDARY WASTE MANAGEMENT PROVISIONS**

**APPENDIX C.1 TYPICAL WORM FARM SPECIFICATIONS**

Worm farms



Space requirements for a typical worm farm for an average household:

Height – 300mm per level

Width – 600mm

Length – 900mm

There are many worm farm arrangements. The above dimensions are indicative only.

SOURCE: Department of Environment and Climate Change NSW 2008, *Better Practice Guide for Waste Management in Multi-Unit Dwellings*

## OPERATIONAL WASTE MANAGEMENT PLAN

## APPENDIX C.2 TYPICAL APARTMENT STYLE COMPOST BINS



Apartment Style Compost bin – available from hardware stores

Suitable for:

- Vegetables
- Coffee grounds and filters
- Tea and tea bags
- Crushed eggshells (but not eggs)
- Nutshells
- Houseplants
- Leaves
- Cardboard rolls, cereal
- Boxes, brown paper bags
- Clean paper
- Shredded newspaper
- Fireplace ashes
- Wood chips, sawdust,
- Toothpicks, burnt matches
- Cotton and wool rags
- Dryer and vacuum cleaner lint
- Hair and fur
- Hay and straw

OPERATIONAL WASTE MANAGEMENT PLAN

APPENDIX C.3 ELECTRIC ORGANIC COMPOST BIN



Product Specifications

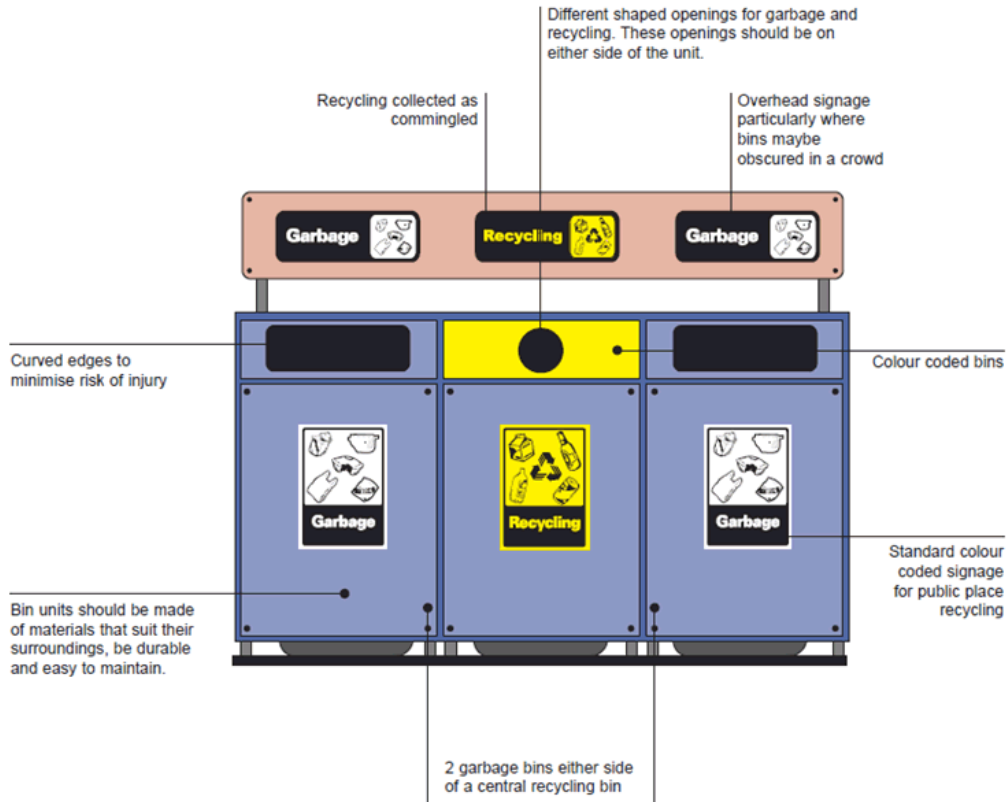
Decomposition Method	Fermentation by microorganisms
Decomposition Capacity	2 metric tonnes per year* (4 kg per day*)
Rating	220-240 V 50/60 Hz - 1.1 A
Decomposition Time	24 hrs
Operating Temperature	0C and 40C.**
Deodorisation Method	Nano-Filter system
Maximum Power	210 W
Power Usage	Average 1 kwh per day
Weight	21 kgs
External Dimensions	w 400 mm d 400 mm h 780 mm

\* Food Waste Handling Capacity – based on an optimal operating environment.  
 \*\* Ambient temperature range of area where unit may be installed.

SOURCE: Closed Loop Domestic Composter – See Useful Contacts  
<http://www.closedloop.com.au/domestic-composter>

OPERATIONAL WASTE MANAGEMENT PLAN

APPENDIX C.4 TYPICAL PUBLIC PLACE WASTE BINS



Source: Department of Environment and Conservation (NSW) Better Practice Guide for Public Place Recycling 2005

## 4.2 Gilead Planning Proposal

### Community Strategic Plan

Objective	Strategy
1 Outcome One: A Vibrant, Liveable City	1.8 - Enable a range of housing choices to support different lifestyles

### Referral Criteria

Pursuant to Section 2.19 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the Campbelltown City Council Local Planning Panel (the Panel) is required to advise Council on any planning proposal that has been prepared or is to be prepared by the Council under Section 3.33 of the EP&A Act and that is referred to the Panel by the Council.

### Executive Summary

- Lendlease Communities (Mt Gilead) Pty Ltd (Lendlease) has submitted a Planning Proposal Request (PPR) that seeks to amend the Campbelltown Local Environmental Plan 2015 (CLEP 2015) in respect of land within the Mount Gilead Urban Release Area (Mt Gilead), which forms part of the Greater Gilead Urban Release Area (Greater Gilead).
- Mt Gilead was rezoned for urban purposes in September 2017 and is the subject of a Local Voluntary Planning Agreement, State Voluntary Planning Agreement and Biodiversity Certification Agreement.
- The PPR seeks to amend the spatial layout of residential and open space zoned land while retaining the existing dwelling yield of 1700 lots. The PPR also seeks to introduce the R3 Medium Density Residential and B4 Mixed Use zones. The existing B1 Neighbourhood Centre is proposed to be rezoned R2 Low Density Residential due the impact of planning for bushfire protection and location which does not align with the desired future road hierarchy.
- It is considered that the PPR has strategic merit and would allow a more diverse and sustainable urban release outcome, with an enhanced range of dwelling opportunities, supporting commercial and community facilities, greater connectivity of areas protected as bio-banking sites, increased open space and appropriate road and stormwater management infrastructure supported by an updated local voluntary planning agreement.

### Officer's Recommendation

That the Campbelltown Local Planning Panel:

1. Support in principle the PPR that seeks to amend the Campbelltown Local Environmental Plan 2015 subject to the following key amendments:

- a) That Clause 4.3A be amended to allow multi dwelling housing to be a maximum of three storeys in the R3 Medium Density Residential Zone.
  - b) Clause 4.4 (2A) be amended to exclude its application for areas shown on the Urban Release Area Map.
  - c) Delete Clause 4.1E and amended the minimum lot size map in respect of that part of Lot 5 DP 1240836 zoned RU2 Rural Landscape to 5ha to permit its excision.
  - d) Clause 4.1(4C) be amended to support no more than 20 percent of the notional yield or 340 lots (total) to be less than the minimum lot size of 450m<sup>2</sup>.
  - e) The proposed exemption to Clause 4.1C be replaced by a new Clause 4.1H to specify the applicable minimum lot size for residential accommodation in the R3 Medium Density Housing zone.
  - f) That a Floor Space Ratio (FSR) of 2:1 for the B4 Mixed Use zone be applied to the Floor Space Ratio Map.
2. Note that Lendlease has committed to amend the existing Voluntary Planning Agreement with Council to ensure all local infrastructure required to support the incoming population is delivered in conjunction with the development of the release area.
  3. Acknowledge that the PPR has strategic merit in regard to the natural environment, dwelling diversity, open space provision and consistency with relevant requirements of the Regional and District Plans.

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## Purpose

To assist Council in its decision whether to support the progression of the subject application for Gateway Determination in accordance with the provisions of EP&A Act.

### Property Description

The land affected by the PPR comprises a total of 6 properties. The legal description of the land is provided below:

Lot 1 DP 1240836,  
Lot 2 DP 1240836,  
Lot 3 DP 1240836,  
Lot 4 DP 1240836,  
Lot 5 DP 1240836; and  
Lot 61 DP 752042.

### Application Number

561/2019/E-PP

### Applicant

Lendlease Communities (Mt Gilead) Pty Ltd

<b>Land Owner</b>	Lendlease Communities (Mt Gilead) Pty Ltd
<b>Provisions</b>	<ul style="list-style-type: none"><li>• Campbelltown Local Environmental Plan 2015</li><li>• Section 9.1 Ministerial Directions</li><li>• Greater Sydney Region Plan</li><li>• Western City District Plan</li><li>• Greater Macarthur: An Interim Plan for the Greater Macarthur Growth Area.</li><li>• Campbelltown Community Strategic Plan</li><li>• Campbelltown Draft Local Strategic Planning Statement</li><li>• State Environmental Planning Policies</li><li>• Campbelltown (Sustainable City) Development Control Plan 2015</li></ul>
<b>Date Received</b>	20 February 2019

## History

The Mt Gilead Homestead Precinct (the Precinct) was rezoned for urban purposes in September 2017 after an extensive strategic planning phase. The Precinct is to provide a maximum of 1,700 lots, ranging in size from 375m<sup>2</sup> to 700m<sup>2</sup>, supported by a network of open space and stormwater management facilities, a community hub and the conservation of existing sensitive ecological communities on the site.

Since the rezoning, Lendlease has taken a controlling interest in the land and has lodged various development applications with Council, seeking development consent to undertake urban development of the land.

The local infrastructure delivery mechanism for the land is a Local Voluntary Planning Agreement (LVPA) that was executed in August 2019 in respect of 1700 allotments (registration on title is imminent) between Lendlease Communities Mt Gilead Pty Ltd, the Dzwonnik Family and Campbelltown City Council to an aggregate value of \$56 Million. The subject funding is to be expended on open space, community infrastructure and water quality treatment basins.

A State Voluntary Planning Agreement (SVPA) was executed in May 2019 in respect of 1700 allotments (registered on title October 2019) between Lendlease Communities Figtree Hill Pty Ltd and the Minister for Planning and Public Spaces to a value of \$86 Million. The SVPA funding is to be expended on works associated with the upgrade of Appin Road.

A Biodiversity Certification Order was issued in respect of the subject land in July 2019 under the *Threatened Species Conservation Act 1995*.

## The Site

Mt Gilead forms part of the Greater Macarthur Growth Area which is located south of the Campbelltown City Centre.

The land subject to the PPR (the site) is located south of the existing urban areas of Campbelltown, on the western side of Appin Road, and adjoining the southern boundary of the Noorumba Reserve.

The site comprises six allotments and has an approximate area of 216 hectares. Historically the site has been predominantly used for agricultural purposes, and contains a number of riparian corridors and farm dams, with pockets of remnant native vegetation. Whilst a hill with steep slopes is located within the north western corner of the subject site, the rest of the land is generally gently sloping.

There are some remaining stands of significant vegetation which have been conserved under a Biodiversity Certification Agreement and BioBank Agreements. The site does not contain any items of local or State heritage significance and is not located within a heritage conservation area. The site is in close proximity to the State Heritage Listed Upper Canal Water Supply System and the curtilage associated with the greater Mount Gilead Homestead Precinct.

## Proposal

The proposal is comprised of two parts being the Planning Proposal Request (PPR) and an amendment to Volume 2, Part 7 (Mt Gilead) of the Campbelltown (Sustainable City) Development Control Plan. (CSCDCP)

The PPR seeks to amend Campbelltown Local Environmental Plan 2015 (CLEP 2015) to:

- Amend the land use zones and principal development standards relating to minimum lot size, building height, floor space ratio, land acquisition and subdivision requirements for certain forms of development. Further detail is provided in Section 1.9 below.
- Relocate and expand the neighbourhood centre to provide a retail gross floor area of 4,000m<sup>2</sup>
- Increase the level of protection for land conserved under the Biodiversity Certification Agreement by zoning the land E2 Environmental Conservation
- Increase the provision of open space from 29.91 hectares to 50.27 hectares

The Development Control Plan amendment seeks to:

- Deliver a more diverse range of housing types whilst not exceeding the current endorsed limit of 1700 dwellings
- Amend the road and street network, including the primary collector road network to celebrate the scenic value of One Tree Hill, improve future bus coverage and provide a future link to the balance lands
- Identify a 2 hectare site for a potential future school
- Provide an extra 1,700 trees in private land by requiring a minimum of two trees in the front setback, two in the rear setback and 50 percent of the front setback to be landscaped with turf and garden beds
- Revise the major road cross sections to provide additional opportunities for tree planting



- Update the open space network to align with the proposed PPR and improve pedestrian, cycle and biodiversity connections
- Enhance and relocate the community facility to a location more proximate to the town centre to support the future needs of the community
- Align the residential dwelling controls with Greenfield Housing Code to avoid inconsistencies in streetscapes and insert provisions for small lot housing for parts of the B4 zone and R3 zone
- Reference Lendlease's Dwelling Design Guidelines that include greater requirements for on lot tree planting and use of building materials with reduced solar absorption
- Provide guidance on the layout of future neighbourhood centre

As the Panel is only required to provide advice on the proposed amendment to the CLEP 2015, this report does not assess or provide a recommendation in relation to the proposed amendment to CSCDCP.

The PPR is supported by the following specialist technical studies. The findings of the specialist technical studies have been incorporated into the PPR Report, as provided in attachment 5.

<b>Specialist Technical Studies</b>	<b>Author</b>	<b>Date</b>
Gilead Landscape Masterplan	ASPECT Studios	October, 2018
Detailed Site Investigation with Limited Sampling - Mt Gilead	Douglas Partners Pty Ltd	October, 2016
Remediation Action Plan – Mt Gilead	Douglas Partners Pty Ltd	August, 2017
Report on Preliminary Site Investigation	Douglas Partners Pty Ltd	December, 2016
Mount Gilead Project (MDP Lands) Aboriginal Cultural Heritage Assessment	Cultural Heritage Connections & Virtus Heritage Pty Ltd.	July, 2017
Heritage Assessment and Management Strategy	TKD Architects	June, 2017

Since submission of the PPR, elements of the supporting studies may no longer be relevant due to iterative amendments to the PPR arising from Council officer review.

## Report

This report considers the strategic context of the PPR in relation to State and local planning policies and the potential impacts of the proposal.

### 1. Strategic Context

The following State and local planning policies are relevant to the PPR as discussed below.

#### 1.1 Greater Sydney Region Plan

A Plan for Growing Sydney has been prepared by the NSW State Government to guide land use planning decisions for the next 20 years. The Greater Sydney Region Plan (GSRP) sets a strategy for accommodating Sydney's future population growth and identifies the need to

deliver 689,000 new jobs and 664,000 new homes by 2031. The GSRP identifies that the most suitable areas for new housing are in locations close to jobs, public transport, community facilities and services.

An assessment of the PPR against the relevant Directions and Objectives of GSRP is provided in attachment 1. The PPR is generally consistent with the GSRP particularly as the proposal seeks to ensure that development outcomes meet contemporary expectations.

## **1.2 Western City District Plan**

The Western City District Plan (WCDP) sets out more detail with respect to the anticipated growth in housing and employment in the Western District and amongst other things, is intended to inform the assessment of planning proposals.

The WCDP identifies Gilead as a Land Release Area within the Greater Macarthur Growth Area. The majority of new communities in land release areas identified by the District Plan are located within precincts contained within State Environmental Planning Policy (Sydney Region Growth Centres) 2006.

Unlike the majority of land release areas, CLEP 2015 is the principal environmental planning instrument that applies to the land. Therefore, the Mt Gilead Precinct has not been subject to the various incremental State Government led amendments such as the 2016 Housing Diversity Package which resulted in development precincts such as Willowdale and New Breeze having a wider variety of lot sizes and dwelling types.

An assessment of the PPR against the relevant Directions and priorities are provided in attachment 2. The PPR is generally consistent with the WCDP particularly as the proposal seeks to ensure that development outcomes meet contemporary expectations.

## **1.3 Greater Macarthur Growth Area**

The Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area (Greater Macarthur 2040) provides the land use and infrastructure implementation plan for the Glenfield to Macarthur urban renewal precincts and the urban releases to the south of Campbelltown, including the Mt Gilead Urban Release Area.

Greater Macarthur 2040 identifies that Mt Gilead will be:

- rezoned and release land for urban development
- deliver around 15,000 new homes in the broader Gilead precinct
- provide higher density residential development around centres and along the central transport corridor
- conserve biodiversity corridors and waterways
- create a central transport corridor providing public transport connections beyond the site
- create road upgrades and connections beyond the precinct

Greater Macarthur 2040 is supported by the Greater Macarthur and Wilton Retail Market Analysis (2016) which states that the Greater Macarthur Priority Growth Area has the potential for a network of centres including:

- sub-regional shopping centre at Wilton providing around 52,600m<sup>2</sup> Gross Leasable Area (GLA) in total
- second sub-regional shopping centre at West Appin providing around 32,600m<sup>2</sup> GLA in total
- supermarket based shopping centre at Menangle Park providing around 15,000m<sup>2</sup> GLA overall
- supermarket based town centre at Mount Gilead providing around 8,700m<sup>2</sup> GLA

The proposed Mt Gilead mixed use Town Centre is consistent with the above retail analysis, with capacity to support a supermarket-based centre with supporting speciality retail floor area of 4,000m<sup>2</sup>. Should the proposal be recommended for Gateway Determination, it is recommended that economic assessment and design analysis be undertaken to inform final LEP and DCP controls.

#### **1.4 Consideration of State Regional Environmental Plans**

State Regional Environmental Plan 20 – Hawkesbury Nepean River (SREP 20) applies to the Gilead precinct. The aim of the SREP 20 is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. The PPR is generally consistent with SREP 20 as it aims to protect the environment of the Hawkesbury-Nepean River in regards to the proposed land use and environmental protection.

#### **1.5 Consideration of State Environmental Planning Policies**

The PPR is consistent with the relevant State Environmental Planning Policies (SEPP) that apply to the site. A detailed list of the SEPPs and commentary is provided at attachment 2.

#### **1.6 Consideration of Section 9.1 Ministerial Directions**

The PPR is generally consistent with the Section 9.1 Directions issued by the Minister for Planning. A detailed commentary in respect of the relevant Section 9.1 Directions forms attachment 3.

#### **1.7 Campbelltown Community Strategic Plan 2017-2027**

The Campbelltown City Community Strategic Plan (CSP) is a ten year vision that identifies the main priorities and aspirations for the future of the Campbelltown City Local Government Area (LGA) and is Council's long term plan to deliver the community inspired vision.

The CSP acknowledges the need to provide for housing diversity and affordability in a structured way, whilst preserving the important natural attributes of the LGA and facilitating its promotion.

The PPR is consistent with the CSP and will specifically facilitate delivery of the key outcomes as detailed below.

<b>CSP Outcome</b>	<b>Statement of Consistency</b>
<b>Outcome 1</b>	
A vibrant, liveable city.	<ul style="list-style-type: none"> <li>• The community will be afforded the opportunity to review the Planning Proposal and engage at key stages in the decision-making process.</li> <li>• The proposal seeks to revise the masterplan to improve place making, public domain and open space outcomes.</li> <li>• Provides for the interpretation of historical uses and ownership of the site.</li> <li>• Provides for greater housing choice and diversity.</li> </ul>
<b>Outcome 2</b>	
A respected and protected natural environment	<ul style="list-style-type: none"> <li>• The proposal seeks to link two parcels of critically endangered ecological communities through the provision of an open space corridor.</li> <li>• Is consistent with Council's Natural Assets Corridor Map.</li> </ul>
<b>Outcome 3</b>	
A thriving, attractive city	<ul style="list-style-type: none"> <li>• The proposal will facilitate the delivery of all local infrastructure on behalf of Council through a Planning Agreement.</li> </ul>
<b>Outcome 4</b>	
A successful city	<ul style="list-style-type: none"> <li>• The proposal seeks to implement a more permeable road network and bus route that will serve a greater walking catchment within the site.</li> <li>• The proposal continues to respect and manage key environmental and heritage outcomes identified for the site in the original rezoning.</li> </ul>

### 1.8 Draft Local Strategic Planning Statement 2019

The Draft Local Strategic Planning Statement (LSPS) recently concluded public consultation. It details Campbelltown City Council's plan for the community's social, environmental and economic land use need over the next 20 years. The LSPS provides context and direction for land use decision making within the Campbelltown Local Government Area (LGA), and seeks to:

- provide a 20 year land use vision for the Campbelltown LGA
- outline the characteristics that make our city special
- identify shared values to be enhanced or maintained
- direct how future growth and change will be managed

The LSPS responds to the District and Regional Plans and to the community's documented aspirations. The document establishes planning priorities to ensure that the LGA thrives now and remains prosperous in the future, having regard to the local context. The PPR is consistent with the draft LSPS as the proposal has good alignment with Council's Community Strategic Plan and the relevant Directions, Objectives and Priorities of the District Plan.

### 1.9 Campbelltown Local Environmental Plan 2015

The Campbelltown Local Environmental Plan 2015 (CLEP 2015) is the principal environmental planning instrument for the City of Campbelltown. A summary of the existing planning framework and proposed amendment is discussed below, with maps illustrating the proposal provided in attachment 4.

CLEP 2015 Current	Proposed Amendment	Comment
<b>Land use Zoning Map (attachment 4)</b>		
<p>The zoning of land in Mt Gilead uses the R2 Low Density Residential, RE1 Public Recreation and B1 Neighbourhood Centre zones.</p>	<p>The PPR seeks to introduce or amend the spatial location of land use zones to:</p> <ul style="list-style-type: none"> <li>• Replace the B1 Neighbourhood Centre zoning with a B4 Mixed Use town centre zone and relocate to a more central location.</li> <li>• Introduce a R3 Medium Density Residential zone along the southern spine entry corridor.</li> <li>• Rezone portions of RU2 Rural Landscape to E2 Environmental Conservation and RE1 Public Recreation land to allow for conservation of threatened species as well as providing open space.</li> <li>• Rezone areas of RE1 Public Recreation that are subject to biobank protection to E2 Environmental Conservation.</li> <li>• Reduce the extent of R2 Low Density Residential zoned land to reflect the revised open space and conservation areas.</li> </ul>	<p>No concern is raised in regard to the proposed amendments to the Land Zoning Map.</p> <p>Although the proposal seeks to allow for a more diverse range of dwelling types in the R3 Medium Density Residential and B4 Mixed Use zones, the future yield is not expected to increase due to the reduced area of proposed residential land, local and State infrastructure agreements that cap development to 1700 dwellings and road network design limitations.</p> <p>The proposed zoning amendments also contribute to enhanced open space and ecological conservation outcomes.</p>
<b>Minimum Lot Size Map (attachment 4)</b>		
<p>The current minimum lot sizes for the R2 Low Density Residential are the following:</p>	<p>The PPR seeks to amend the Minimum Lot Size Map generally as follows:</p> <ul style="list-style-type: none"> <li>• R2 Zone:</li> </ul>	<p>The proposed standard minimum lot size of 450m<sup>2</sup> over the majority of the R2 Low Density Residential zone is considered appropriate</p>

CLEP 2015 Current	Proposed Amendment	Comment
<ul style="list-style-type: none"> <li>• 450m<sup>2</sup></li> <li>• 500m<sup>2</sup></li> <li>• 700m<sup>2</sup></li> </ul> <p>The current minimum lot size for the RU2 Rural Landscape zone is 100ha.</p> <p>There is no land currently zoned R3 (hence no minimum lot size map reference)</p> <p>There is no land currently zoned B4 (hence no minimum lot size map reference)</p>	<ul style="list-style-type: none"> <li>- 500m<sup>2</sup> to 450m<sup>2</sup> (in part)</li> <li>- 700m<sup>2</sup> to 450m<sup>2</sup></li> </ul> <p>Note that some 500m<sup>2</sup> 'precincts' remain unchanged.</p> <ul style="list-style-type: none"> <li>• R3 Zone: N/A</li> <li>• B4 Zone: N/A</li> <li>• RU2 Zone: 5ha</li> </ul> <p>The PPR also seeks to add specific areas on the minimum lot size map to allow additional provisions relating to lot sizes for specific development types.</p> <p>This includes Area 1 which would apply to the R3 Medium Density Residential zone and Area 2 which would apply to the R2 Low Density Residential zone as discussed under the Principal Development Standards Subdivision heading below.</p>	<p>having regard to the site attributes and resulting housing diversity benefits. Further, it would assist to balance, in part, the additional land proposed to be zoned for open space.</p> <p>The proposal to have no minimum lot size within the R3 Medium Density Residential and B4 Mixed use zone is to provide consistency with a proposed new subdivision clause to provide for a diversity of dwelling types within the zone. This approach is consistent with other council Growth Area controls.</p> <p>A variation to the RU2 minimum lot size map as proposed (5ha) is supported. This would support the deletion of Clause 4.1E to support the excision of urban zoned land from Lot 5 in DP 124036.</p>
<b>Height of Building Map (attachment 4)</b>		
<p>The current maximum building heights are:</p> <ul style="list-style-type: none"> <li>• RU2 Zone: 9m</li> <li>• R2 Zone: 6m, 8.5m</li> <li>• B1 Zone: 9m</li> </ul>	<p>The PPR seeks to amend the Height of Building Map as follows:</p> <ul style="list-style-type: none"> <li>• R2 Zone: 9m (1-2 sty)</li> <li>• R3 Zone: 12m (1-2 sty)</li> <li>• B4 Zone: 15m (3-4 sty)</li> </ul> <p>The PPR also seeks to include a new subclause under Clause 4.3A to permit the number of storeys on R3 zoned land to three storeys, including dwelling houses, attached dwellings, semi-detached dwellings and multi-dwelling housing.</p>	<p>The proposal seeks to apply a 9m height of building control for the R2 Low Density Residential Zone. This control is .5m higher than the standard 8.5m control applied by the Codes SEPP and is considered appropriate for development on sloping land.</p> <p>Areas currently limited to a building height of 6m relate to land located on key view lines from the Old Mill to One Tree Hill. This resulted in a 6m building height control for a depth of approximately 30m on the northern side of One Tree Hill with associated screen</p>

CLEP 2015 Current	Proposed Amendment	Comment
		<p>planting. Due to the proposed inclusion of One Tree Hill in the open space network and further distancing of residential development from this area, an increase from 6m to 9m is considered appropriate. To confirm this outcome, it is recommended that further survey of the sight line be undertaken as a condition of Gateway Determination.</p> <p>The proposed 12m height limit on R3 Medium Density Land is commonly applied in similar land release settings and ideally supports terrace style housing. The proposal to amend Clause 4.3A to allow three storeys for all forms of residential accommodation in the R3 zone is not supported due to the opportunity to undertake a separate subdivision and built form process.</p> <p>Alternatively, three storey development may be considered for multi dwelling housing as this form of housing involves the siting, dwelling design and strata subdivision within a single application and provides opportunity for a more rigorous merit assessment.</p>
<b>Floor Space Ratio Map (attachment 4)</b>		
<p>The maximum floor space ratio for the R2 Low Density Residential zone 0.55:1.</p> <p>No FSR applies to the B1 Neighbourhood Centre and RU2 Rural Landscape zones</p>	<p>The applicant has not sought to amend the Floor Space Ratio Map.</p>	<p>The application of an FSR control within a land release context is uncommon. The usual approach is for floor area to be addressed via building envelope and site coverage controls within a DCP.</p> <p>The preferred approach to controlling bulk and scale is to implement building floor area limits, minimum landscaped</p>

CLEP 2015 Current	Proposed Amendment	Comment
		<p>area, maximum site coverage, solar access controls and minimum boundary setbacks. These matters would be appropriately dealt with in the revised Mt Gilead DCP.</p> <p>This outcome would provide a consistent approach with the Greenfield Housing Code for Complying Development and would improve the customer experience for land owners seeking to either lodge a Development Application with Council or to seek a Complying Development Certificate from an Accredited Certifier.</p>
<b>Land Reservation Map</b>		
The land reservation map identifies land required for public purposes such as open space, roads and utilities.	The PPR seeks to update the Land Reservation Map based on the updated Land Zoning Map where land is reserved exclusively for a public purpose, including open space, environmental conservation and infrastructure.	The proposed amendments are supported to reflect the proposed changes in land uses.
<b>Principal Development Standards: Clause 4.1E</b>		
Other than the requirements of Clause 4.1 (Minimum subdivision lot size) of CLEP 2015, Clause 4.1E also applies in respect to defining the minimum lot size for part of Lot 3, DP 1218887, Appin Road, Gilead that is in RU2 Rural Landscape zone.	The proposal seeks a reduction of the minimum subdivision lot size from 100ha to 5ha to facilitate the subdivision of the land known as Part Lot 5 DP 1240836 and zoned RU2 on the western side of the Sydney Water Supply Upper Canal. (lot 3 DP 730136)	The proposed amendment is supported and most simply addressed by deleting the clause and amending the Minimum Lot Size map for the subject land to 5ha.
<b>Principal Development Standards: Clause 4.1(4C)</b>		
Despite subclause (3), development consent may be granted for the subdivision of land within Lot 61, DP 752042, Appin Road, Gilead, into lots that do not meet the minimum size shown on the Lot Size Map if: a) each lot has a	The proposal seeks to amend this clause so that it would also apply to lots 1 to 5 in DP 1240836) to allow the following outcomes:  <ul style="list-style-type: none"> <li>• Reduction in the minimum lot size for R2 zoned land to be reduced to 375m<sup>2</sup> for up to 255</li> </ul>	The current subclause permits only 65 or 3.8% of total lots below the standard minimums and would not support an effective salt and pepper approach to supporting more affordably priced land to be distributed throughout the release.



CLEP 2015 Current	Proposed Amendment	Comment
<p>minimum lot size of not less than 375m<sup>2</sup>, and</p> <p>b) no more than 65 lots have a lot size of less than 450m<sup>2</sup>, and</p> <p>c) no more than three contiguous lots sharing a street frontage have a lot size of less than 450m<sup>2</sup>, and</p> <p>d) each lot is located not more than 200m from a bus route, community centre or open space area</p>	<p>lots, provided there will be no more than three contiguous lots sharing a street frontage.</p> <ul style="list-style-type: none"> <li>• Reduction in the minimum lot size for R2 zoned land to 300m<sup>2</sup> for up to 255 lots provided:</li> <li>• there will be no more than three contiguous lots sharing a street frontage</li> <li>• each lot is located not more than 200m from a bus route, community facility or open space area</li> </ul>	<p>The proposed amendment would result in up to 510 lots or 30% of total lots providing a more affordable product. Although the approach is supported in principle, smaller lot provision closer to 20% (340 lots) of total lots would be more appropriate and proposed clause 4.1H has been amended accordingly as shown in attachment 4.</p> <p>To support this outcome, existing Clause 4.1(4c) should be amended and replaced with an amended Clause 4.1H as shown in attachment 4.</p>
<b>Principal Development Standards: Subdivision</b>		
<p>Other than the requirements of Clause 4.1 (Minimum subdivision lot size) of CLEP 2015, Clause 4.1C also applies in respect to defining the minimum lot size for the following form of development:</p> <ul style="list-style-type: none"> <li>• Dual occupancy</li> <li>• Semi-detached dwelling</li> <li>• Attached dwelling</li> <li>• Multi Dwelling Housing</li> <li>• Centre based child care facilities</li> <li>• Residential Flat Buildings</li> </ul> <p>The minimum lot sizes established by this clause currently only apply to land in the R2 and R4 zones and apply city wide.</p>	<p>The PPR seeks to insert an additional subdivision clause, to enable development consent to be granted for subdivision of land to achieve the following:</p> <ul style="list-style-type: none"> <li>• Dwelling houses – Down to 300m<sup>2</sup> where location criteria in clause 4.1(4C) are met for R2 zoned land and 125m<sup>2</sup> for R3 zoned land</li> <li>• Dual occupancies – To remain at 700m<sup>2</sup> for starting lot size and 300m<sup>2</sup> for end lot size for R2 zoned land</li> <li>• Semi-detached dwelling – To remain at 700m<sup>2</sup> for starting lot size and 300m<sup>2</sup> end lot size for R2 zoned land to remain and starting lot size of 250m<sup>2</sup> and end lot size of 125m<sup>2</sup> for R3 zoned land</li> <li>• Attached dwellings – Will</li> </ul>	<p>Concern is raised that the proposed subdivision outcome would be too dissimilar to the proposed amendment recently considered for the Menangle Park Urban Release Area.</p> <p>The preferred approach is to have a consistent subdivision standard for the R3 Medium Density Residential zone for the permitted forms of residential accommodation.</p> <p>Therefore, it is recommended that the proposed amendment be modified to support the following subdivision standards for development in the R3 zone:</p> <ul style="list-style-type: none"> <li>• Dwelling House (detached): 250m<sup>2</sup></li> <li>• Semi detached dwellings: 250m<sup>2</sup></li> <li>• Dual Occupancy: 500m<sup>2</sup></li> <li>• Secondary Dwellings: 450m<sup>2</sup></li> <li>• Attached Dwellings: 200m<sup>2</sup></li> <li>• Multi Dwelling Housing:</li> </ul>

CLEP 2015 Current	Proposed Amendment	Comment
	<p>no longer be permissible in R2 zone as per Council Planning Proposal, no minimum lot size to apply to R3 zoned land to remain</p>	<p>1,500m<sup>2</sup></p> <p>Attachment 4 sets out the proposed wording of Clause 4.1H as the recommended approach.</p> <p>This would be consistent with the adopted LEP amendments made on 11 June 2019, to prohibit multi dwelling housing in the R2 Low Density Housing Zone. This would provide certainty that subdivision for dwellings and dual occupancy development may only occur.</p> <p>This approach would position Gilead to provide a similar housing product to the Willowdale Precinct whilst providing certainty that this housing may only occur in the R3 zone.</p> <p>It would also enable these forms of development to occur as either local development (CLEP 2015) or complying development (State Environmental Planning Policy (Exempt and Complying Development) 2008.</p>
<b>Floor Space Ratio Clause</b>		
<p>Clause 4.4 Floor Space Ratio sets out specific floor area controls for the following purposes.</p> <p>Dwelling houses in Zone R2 Low Density Residential, Zone R3 Medium Density Residential and Zone R5 Large Lot Residential: 0.55:1</p> <p>Dual occupancies in Zone R2 Low Density Residential, Zone R3 Medium Density</p>	<p>The PPR seeks to:</p> <p>Remove the FSR standard For the R2 and R3 zones</p> <p>Specify a new FSR of 2.0:1 for the B4 zone</p>	<p>Currently, Clause 4.4(2A) is drafted such that the defined floor space controls are in addition to the Floor Space Ratio Map.</p> <p>Under the current CLEP 2015, this would result in future dwellings having a permissible floor space ratio of 0.55 (map) + 0.55 (Clause 4.4(2A) being 1.1:1 which is excessive.</p> <p>This outcome would be an unintended consequence arising from the translation of Council's LEP into the</p>

CLEP 2015 Current	Proposed Amendment	Comment
Residential and Zone R5 Large Lot Residential: 0.45:1		standard format in 2015 and gazettal of the Menangle Park URA in 2017.
Multi dwelling housing in Zone R2 Low Density Residential: 0.45:1		Therefore, it is recommended that Clause 4.4(2A) be amended to exclude its application for areas shown on the Urban Release Area Map.
Multi dwelling housing in Zone R3 Medium Density Residential: 0.75:1		The proposed specification of an FSR for the B4 zone may be facilitated via the Floor Space Ratio Map.
Centre-based child care facilities in a residential zone: 0.55:1		

In summary, the above amendments are considered to have strategic merit subject to the following changes:

- That Clause 4.3A only be amended to support three storey multi dwelling housing in the R3 Medium Density Residential zone
- Amend Clause 4.4 (2A) to exclude its application for areas shown on the Urban Release Area Map
- Delete Clause 4.1E and amend the minimum lot size map in respect of that part of Lot 5 DP 1240836 zoned RU2 Rural Landscape to 5ha to permit its excision
- Reviewing the provision of lots less than 450m<sup>2</sup> from 30 percent (510 lots) of total yield to 20 percent (340 lots) of total yield
- That the proposed exemption to Clause 4.1C be replaced by a new Clause 4.1H to specify the applicable minimum lot size for residential accommodation in the R3 Medium Density Housing zone
- That an FSR of 2:1 for the B4 Mixed Use zone be applied to the Floor Space Ratio Map

The current planned residential density of the Mt Gilead URA is approximately 1,700 dwellings over 216 hectares. This density is considered low by contemporary standards and would be maintained by the proposal due to the dedication of an additional 18 hectares of public open space, a new school site (public or private) and larger town centre.

### 1.10 Campbelltown (Sustainable City) Development Control Plan 2015

The Campbelltown (Sustainable City) Development Control Plan 2015 (CSCDCP) provides development guidelines and site specific controls to support the delivery of CLEP 2015.

Volume 2, Part 7 of the CSCDCP contains a structure plan and series of development controls to guide delivery of Mt Gilead.

The PPR includes a proposed amendment to Part 7 of the CSCDCP including the adoption of the new structure plan and controls to guide new forms of housing and layout of the amended neighbourhood centre.

Should the matter progress to Gateway Determination, staff would commence the process of reviewing and updating the DCP.

### **1.11 Natural Asset Corridors**

Council has developed two natural asset policy positions over recent years to inform planning for the Campbelltown South Area.

The natural asset policy position comprising of maps and principles was adopted by Council on 28 November 2017. The PPR is consistent with the adopted Council maps, which at the time of drafting, relied on the existing urban extent of the Mt Gilead Precinct.

On 13 March 2018, Council considered the South Campbelltown Koala Connectivity Study, wherein Council noted the findings of the study and resolved to forward the study to the NSW Government to inform the strategic planning processes for Macarthur South and associated infrastructure upgrades in respect to:

- Establishing at least three east-west primary natural asset corridors in the Mount Gilead (South Campbelltown) urban release area, with minimum width ranging from 200m – 425m with at least one corridor designed specifically for Koalas that achieves an average width of 425m
- The provision of at least three fauna and koalas overpasses along Appin Road, supported by wildlife exclusion fences and koala grid across all associated driveways and intersections.

Although the Connectivity Study does not contain mapping of the recommended corridors, it referenced the previous 2017 natural asset corridors in relation to the location of recommended fauna crossings of Appin Road.

In this regard, the Roads and Maritime Services (RMS) undertook public consultation on the Review of Environmental factors for the upgrade of Appin Road in November 2018. As part of this process, Council made a submission that referenced the connectivity study and need for a fauna crossing as part of the works. Notwithstanding this representation, the RMS decided to proceed with the project and made minor amendments to include additional fauna fencing along the western side of Appin Road.

Therefore, having regard to the above, the PPR is generally consistent with contemporary policy in regard to natural asset corridors. Opportunity for wider, primary width corridors would be considered in future land release proposals in South Campbelltown and would be informed by the NSW Government's policy in regard to the final Macarthur 2040 Plan and Cumberland Plain Conservation Plan which are yet to be finalised.

## 2. Evaluation

As Mt Gilead is already zoned for urban purposes, the assessment is limited to matters relevant to likely impacts arising from the proposal as discussed below.

### 2.1 Biodiversity

The Minister for the Environment, Developer, Landowners and Council, have entered into a Biodiversity Certification Agreement on the land under the *Threatened Species Conservation Act 1995*.

The agreement includes the bio-banking of vegetation, and the retirement of particular biodiversity credits under other bio-banking agreements to facilitate the proposed development.

Accordingly, developments or activities proposed to be undertaken within the certified areas do not need to undertake assessment of impacts on threatened species, populations and ecological communities, or their habitats, that would normally be required under the EP&A Act.

The Biodiversity Certification Agreement requires the Developer to prepare and implement a Construction Environmental Management Plan to the satisfaction of Council prior to the clearing of land. The plan must include but not be limited to:

- the erection of temporary and permanent protective fencing around all areas identified for conservation to minimise any inadvertent damage
- the retention of hollow bearing trees (where possible) that potentially contain roosting and breeding habitat for threatened microbats
- the salvaging of trees or parts thereof for use as fauna habitat in other biobank sites
- providing kerb and gutter and piped stormwater management infrastructure to roads surrounding the conservation areas to ensure that stormwater will not flow into the conservation areas
- preparation of a dam de-watering plan for the removal of the farm dams
- preparation of a fauna pre-clearance protocol for the removal of all trees

It is noted that the PPR proposes a higher level of land use protection for the Biobank sites with an E2 Environmental Conservation Zone proposed over these sites to replace the existing RE1 Public Recreation zone. In addition, a third Biobank site is proposed over the managed lands as per the requirements of the Biodiversity Certification Agreement for Gilead Stage 1.

In this regard, the proposal is not considered to have an unacceptable impact on threatened species, populations, ecological communities or their habitats, within the meaning of the *Threatened Species Conservation Act 1995*.

## 2.2 Bushfire Hazard

The original rezoning demonstrated that development of the site could incorporate appropriate bushfire protection measures in line with the requirements of Planning for Bushfire Protection 2006. The NSW Rural Fire Service (RFS) has exhibited an update to this guideline and has resulted in changes to various requirements, in particular the provision of Asset Protection Zones (APZ) and categorisation of bushfire hazards. Future development applications would be required to address the requirements of this plan and any concurrence requirements.

## 2.3 Contamination

The site is currently zoned for urban purposes. Lendlease has since lodged a series of development applications on the site that have confirmed the site is generally free of contamination. Four Potential Areas of Environmental Concern (PAEC) have been identified on Lots 1 to 5 in DP 1240836 (previously Lot 3 in DP 1218887) and include uncontrolled fill from road cuttings, asbestos containing material from the existing pipe network and hydrocarbon impacted soils along the alignment of an existing transmission line. A Remediation Action Plan (RAP) has been prepared to address the four PAECs and confirms that the site can be made suitable for the proposed residential development. Lendlease currently have a development application with Council seeking approval for these remediation works.

## 2.4 Geotechnical Conditions

The Geotechnical investigations considered in the original rezoning of the site confirmed that the land was suitable for residential development with no significant geotechnical hazards and that there is very low risk of potential acid sulphate soils. The Planning Proposal does not alter this conclusion.

## 2.5 Air Quality

Air quality implications for limitations on residential development of the site was previously considered under the original rezoning based on a yield of 1,700 lots. An Air Quality Assessment for the site was prepared that considered external existing land uses that may be a source of odour or air quality impacts as well as air quality impacts associated with the increase of traffic along Appin Road.

The assessment considered air quality impacts from the following external sources:

- Rosalind Park Gas Plant approximately 1.1km from the site
- Menangle Quarry approximately 1.2km from the site
- Ingham Appin Broiler Complex approximately 4km from the site

In terms of existing land uses external to the site, the Air Quality Assessment concluded that the existing uses would not cause air quality impacts for the development of the site. The assessment also considered air quality impacts associated with increased traffic volumes along Appin Road.

The Development Control Plan did not include specific requirements for air quality to be addressed beyond compliance with DPE's Development near Rail Corridors and Busy Roads - Interim Guideline. The Planning Proposal does not alter this conclusion.

## **2.6 Mine Subsidence**

The site falls within the South Campbelltown Mine Subsidence District and Coal Exploration Authorisation Area A248 that includes the Bulli and Balgownie Coal Seams. Mine subsidence was previously considered as part of the original rezoning of the site for residential development. The assessment concluded that mining of the Balgownie Seam is unlikely to be mined due to extraction constraints. No mining activities of the part of the site within the Bulli Seam are planned.

The Planning Proposal does not alter this conclusion. Further, since the site was rezoned, Subsidence Advisory NSW has been issuing approvals under the *Coal Mine Subsidence Compensation Act 2017* and include appropriate design requirements to mitigate subsidence impacts on residential development should future mining occur.

## **2.7 Noise**

Noise impacts on future development of the site were previously addressed as part of the original rezoning. Appin Road and future traffic noise was identified as the predominant noise source affecting the site. The Development Control Plan requires compliance with DPE's Development Near Rail Corridors and Busy Roads - Interim Guideline.

The Planning Proposal intends to maintain this requirement. These standards would be met through the use of architectural construction standards in accordance with the guideline and use of a landscape and noise wall treatment along the frontage to Appin Road. The noise wall and landscape treatment would be the subject of development applications for the subdivision of land within proximity to Appin Road.

## **2.8 Riparian Corridors**

Riparian corridors were investigated and mapped as part of the original rezoning. Riparian corridor outcomes for the site were then confirmed with the NSW Department of Primary Industries - Water.

The Planning Proposal does not seek to alter the outcomes agreed with Department of Primary Industries - Water.

## **2.9 Water Cycle Management**

As part of the original rezoning, a Stormwater Management and Flooding Assessment was prepared for the site to address flood risk and detail the approach required to satisfy the principles of the NSW Floodplain Development Manual (as amended by the DPE's 2007 Flood Planning Guideline), and meet Council's stormwater detention and quality targets.

The assessment concluded that the 1 percent Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) are generally contained within riparian corridors and outside of land intended for development and unlikely to impact on residential development. Where there were minor areas of residential land affected by flooding, Council determined that the definition of habitable floor levels and evacuation routes were to be addressed in future development applications for development of these areas. The Planning Proposal does not

result in significant increases in development of land affected by the 1 percent AEP or PMF and this approach is proposed to be maintained.

A stormwater management strategy was prepared for the site to meet Council's engineering specifications and targets for stormwater management including stormwater detention to ensure post development flows and discharges do not exceed pre-development peak discharge rates for the 1 percent AEP and stormwater pollutant load reduction targets. This strategy was developed on the basis that two different developers would be delivering the site without placing a burden on one landowner to deal with the others stormwater.

This approach led to the identification of surplus stormwater detention and treatment facilities, in particular the inclusion of a stormwater detention and treatment basin along the northern boundary of Lot 61 in DP 750452. As part of Lendlease's current development applications, a revised Water Cycle Management Strategy has been lodged with Council to rationalise the stormwater management facilities and improve their delivery whilst still meeting Council's specifications.

The same parameters for the sizing and design of the water cycle management network as per the original strategy have been applied and are being refined through a design verification process for each development application. Using this approach, the same parameters would be applied to all developable land that would result from the PPR. Consistent with the original zoning scheme, all stormwater infrastructure falls within land zoned RE1. Any loss of public recreation area for stormwater management has been significantly offset by the total increase of RE1 land being delivered as part of the rezoning.

## 2.10 Open Space

The PPR is supported with a Landscape Masterplan that provides a diverse range of open space with various functions including:

- Riparian land
- Informal open space (parks and play spaces)
- Formal playing fields/ Structured sport
- Ecological/Conservation Areas

Assessment of the PPR and suitability of open space provision is based on the traditional standard of 2.83 ha of open space per 1,000 people. The current Gilead release area has a total of 29.91 ha of open space, of which 12.86ha has a specific open space and recreation function. This equates to 2.77 hectares per 1,000 people.

The PPR is proposing to increase the open space and recreation function from 12.86ha to 35.35 ha. This equates to 7.6 hectares per 1,000 people, which is significantly above the traditional standard.

There is also an opportunity to review and refine the open space areas adjoining the conservation areas to improve biodiversity connections and minimise edge effects. This refinement can be undertaken pre Gateway Determination.

Although this additional provision may be considered appropriate to contribute to open space demand for the balance lands (large Lendlease future development lands), it would not meet



the requirement for active recreation and future sports field demand which would be addressed in future stages of land release.

### **2.11 Centres**

The PPR includes the provision of a B4 Mixed Use zone of 4ha that would be capable of delivering up to 4,000sqm of retail space with associated parking and support commercial, community and residential uses.

It is envisaged that the retail component would be delivered in stages over five to 10 years as the residential catchment is established. The centre would have an important place making community focus and is proposed to be highly accessible.

Despite the proposed centre being generally consistent with the planning background to Greater Macarthur 2040, it is recommended that further economic modelling be undertaken in respect of its viability and impacts upon other future and existing centres. Additionally, further design analysis should be undertaken to inform a master plan strategy for the DCP. It is recommended this work may occur as a requirement of any future Gateway Determination, prior to public exhibition.

### **3. Infrastructure Delivery**

As outlined in this report, Lendlease and Council have executed a Voluntary Planning Agreement that secures the provision of local infrastructure needed to support the incoming population.

The PPR would require amendments to the executed VPA to reflect the proposed increase in open space. Should the Panel support progression of the PPR in its current form, a further report to Council would detail the likely amendments and letter of offer from Lendlease.

### **4. Next Steps**

Following the advice and recommendations of the Local Planning Panel, a further report would be presented to Council. Any further report would extend to address proposed amendments to the local development guidelines contained in Volume 2, Part 7 Mt Gilead Development Control Plan and the Voluntary Planning Agreement.

### **Conclusion**

This report has outlined a comprehensive suite of amendments to the Mt Gilead Urban Release Area that is under the control of the proponent. The proposed relocation of the commercial centre and increase of housing diversity is consistent with prevailing requirements of the Regional, District and Macarthur 2040 Plans and would be supported by a revised voluntary planning agreement to ensure all required infrastructure is delivered to coincide with the need of future residents with minimum financial risk to Council.

Strategic merit is demonstrated by an overall improvement in the provision of open space, conservation outcomes, housing diversity and community infrastructure.

Accordingly, it is recommended that the Campbelltown City Council Local Planning Panel support progress of the PPR with amendments as outlined in the recommendation to Council for a decision whether to seek a Gateway Determination.

## **Attachments**

1. Greater Sydney and Western City District Plan (contained within this report)
2. State Environmental Planning Policy (contained within this report)
3. Relevant Section 9.1 Ministerial Directions (contained within this report)
4. CLEP Mapping (contained within this report)
5. Gilead Planning Proposal - (due to size 91 pages) (distributed under separate cover)

## **Reporting Officer**

Executive Manager Urban Release and Engagement

**Table 3: Greater Sydney and Western City District Plan**

<b>Key Directions and Planning Priorities</b>			
<b>Greater Sydney Region Plan</b>	<b>Western City District Plan</b>	<b>Consistency</b>	<b>Response</b>
<b><u>Infrastructure and Collaboration</u></b>			
<b><i>A City Supported by Infrastructure</i></b>			
<ul style="list-style-type: none"> <li>» <i>Infrastructure supports the three cities</i></li> <li>» <i>Infrastructure aligns with forecast growth - growth infrastructure compact</i></li> <li>» <i>Infrastructure adapts to meet future needs</i></li> <li>» <i>Infrastructure use is optimised</i></li> </ul>	<ul style="list-style-type: none"> <li>» <i>Planning for a city supported by infrastructure (W1)</i></li> </ul>	Yes	<p>The requisite social and physical infrastructure needs required to support the proposal will be delivered through a Voluntary Planning Agreement (VPA).</p>
<b><i>A Collaborative City</i></b>			
<ul style="list-style-type: none"> <li>» <i>Benefits of growth realised by collaboration of governments, community and business</i></li> </ul>	<ul style="list-style-type: none"> <li>» <i>Working through collaboration (W2)</i></li> </ul>	Yes	<p>The realisation of the vision will ultimately be dependent upon collaboration of various government instrumentalities, Council, the development sector and existing and envisaged community.</p> <p>An appropriate delivery mechanism focused on collaboration should potentially be explored as a more detailed planning framework is established after the rezoning.</p>
<b><u>Liveability</u></b>			
<b><i>A City of Great Places</i></b>			
<ul style="list-style-type: none"> <li>» <i>Services and infrastructure meet communities' changing needs</i></li> <li>» <i>Communities are healthy, resilient and socially connected</i></li> <li>» <i>Greater Sydney's communities are culturally rich with diverse</i></li> </ul>	<ul style="list-style-type: none"> <li>» <i>Providing services and social infrastructure to meet peoples changing needs (W3)</i></li> <li>» <i>Fostering healthy, creative, culturally rich and socially connected</i></li> </ul>	Yes	<p>The vision and accompanying planning controls and proposed supporting infrastructure provide a template for people focused planning outcomes</p> <p>Community infrastructure, business and retail facilities, access to diverse open space and transport/access means will reflect in a healthy, resilient and socially connected community.</p>

<i>neighbourhoods</i>	<i>communities (W4)</i>		
» <i>Greater Sydney celebrates the arts and supports creative industries and innovation</i>			
<b>Housing the City</b>			
» <i>Greater housing supply</i> » <i>Housing is more diverse and affordable</i>	» <i>Providing housing supply, choice and affordability, with access to jobs, services and public transport (W5)</i>	Yes	A central foundation of the proposal is increased housing supply, diversity and affordability.  The proposed introduction of the R3 medium density zone and lower minimum lot size provisions underpin the foregoing amended housing template.
<b>A City of Great Places</b>			
» <i>Great places that bring people together</i> » <i>Environmental heritage is identified, conserved and enhanced</i>	» <i>Creating and renewing great places and local centres, and respecting the District's heritage (W6)</i>	Yes	Sensitivity to open space underpins the accompanying amended masterplan and proposed development controls.  Additionally, enhanced access to diverse open space resources, commercial and community facilities will be available, sensitive ecologically communities conserved and broad ranging infrastructure generally provided.
<b><u>Productivity</u></b>			
<b>A Well Connected City</b>			
» <i>A metropolis of three cities - integrated land use and transport creates walkable and 30 minute cities</i> » <i>The Eastern, GOP and Western Economic corridors are better connected and more competitive and efficient</i>	» <i>Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City (W7)</i>	Yes	Direct access is proposed to higher order roads, existing roads are to be upgraded, and intersections enhanced and alternate movement means (pedestrian/cycle) integrated.  Similar infrastructure extends upon such framework and provides a highly permeable structure, facilitating appropriate public transport service levels.

<ul style="list-style-type: none"> <li>» <i>Freight and logistics network is competitive and efficient</i></li> <li>» <i>Regional connectivity is enhanced</i></li> </ul>			
<b>Jobs and Skills for the City</b>			
<ul style="list-style-type: none"> <li>» <i>Harbour CBD is stronger and more competitive</i></li> <li>» <i>Greater Parramatta is stronger and better connected</i></li> <li>» <i>Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City</i></li> <li>» <i>Internationally competitive health, education, research and innovation precincts</i></li> <li>» <i>Investment and business activity in centres</i></li> <li>» <i>Industrial and urban services land is planned, protected and managed</i></li> <li>» <i>Economic sectors are targeted for success</i></li> </ul>	<ul style="list-style-type: none"> <li>» <i>Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis (W8)</i></li> <li>» <i>Growing and strengthening the metropolitan city cluster (W9)</i></li> <li>» <i>Maximising freight and logistics opportunities and planning and managing industrial and urban services land (W10)</i></li> <li>» <i>Growing investment, business opportunities and jobs in strategic centres (W11)</i></li> </ul>	Yes	<p>The proposal is projected to create an increase in new jobs largely in the proposed centres and in the local construction industry. Additionally, increased expenditure in other centres in Greater Campbelltown will enhance employment prospects in such centres.</p>
<b>Sustainability</b>			
<b>A City in its Landscape</b>			
<ul style="list-style-type: none"> <li>» <i>The coast and waterways are protected and healthier</i></li> <li>» <i>A cool and green parkland city in</i></li> </ul>	<ul style="list-style-type: none"> <li>» <i>Protecting and improving the health and enjoyment of the District's waterways (W12)</i></li> </ul>	Yes	<p>The proposal seeks to conserve and embellish sensitive remnant ecological communities and riparian zones. Additionally, it provides a green grid dimension through structured</p>

<p><i>the South Creek corridor</i></p> <ul style="list-style-type: none"> <li>» Biodiversity is protected, urban bushland and remnant vegetation is enhanced</li> <li>» Scenic and cultural landscapes are protected</li> <li>» Environmental, social and economic values in rural areas are protected and enhanced</li> <li>» Urban tree canopy cover is increased</li> <li>» Public open space is accessible, protected and enhanced</li> <li>» The Green Grid links, parks, open spaces, bushland and walking and cycling paths</li> </ul>	<ul style="list-style-type: none"> <li>» <i>Creating a Parkland City urban structure and identity with South Creek as a defining spatial element (W13)</i></li> <li>» <i>Protecting and enhancing bush land and biodiversity (W14)</i></li> <li>» <i>Increasing urban tree canopy cover and delivering Green Grid connections (W15)</i></li> <li>» <i>Protecting and enhancing scenic and cultural landscapes (W16)</i></li> <li>» <i>Better managing rural areas (W17)</i></li> <li>» <i>Delivering high quality open space (W18)</i></li> </ul>		<p>and informal recreation areas and linkages, including Figtree Hill. A sustainable street tree planting regime is to be implemented.</p>
<p><b>An Efficient City</b></p>			
<ul style="list-style-type: none"> <li>» A low carbon city contributes to net-zero emissions by 2050 and mitigates climate change</li> <li>» Energy and water flows are captured, used and re-used</li> <li>» More waste is re-used and recycled to support the development of a</li> </ul>	<ul style="list-style-type: none"> <li>» <i>Reducing carbon emissions and managing energy, water and waste efficiently (W19)</i></li> </ul>	<p>Yes</p>	<p>A highly permeable accessibility network, which also accommodates alternative movement means and provides reasonable access to public transport, underpins the proposal as previously highlighted.</p> <p>Water management optimisation opportunities are to be pursued, together with measures to minimise adverse potential urban heat island impacts.</p>

<i>circular economy</i>			
<b>A Resilient City</b>			
<ul style="list-style-type: none"> <li>» <i>People and places adapt to climate change and future shocks and stresses</i></li> <li>» <i>Exposure to natural and urban hazards is reduced</i></li> <li>» <i>Heatwaves and extreme heat are managed</i></li> </ul>	<ul style="list-style-type: none"> <li>» <i>Adapting to the impacts of urban and natural hazards and climate change (W20)</i></li> </ul>	Yes	Appropriate flood and bushfire hazard management strategies underpin the proposal and there are opportunities to proactively address potential urban heat island impacts, particularly in the public realm.

**'Attachment 2' State Environmental Planning Policy**

Assessment Against State Environmental Planning Policies		
SEPP	Consistency	Evaluation
SEPP No 1 Development Standards	Yes	Not applicable as CLEP 2015 is a Standard Instrument LEP & incorporates Clause 4.6 - Exceptions to Development Standards, which negates the need for consistency with SEPP 1.
SEPP No. 19 - Bushland in Urban Areas	Yes	Where relevant, future vegetation removal will need to comply with the provisions of the SEPP and other companion legislation. It is noted that the land has been Biodiversity Certified.
SEPP No. 21 - Caravan Parks	N/A	Not Applicable to this PP.
SEPP No. 33 - Hazardous & Offensive Development	N/A	Not Applicable to this PP.
SEPP No. 36 - Manufactured Home Estates	Yes	The provisions of the SEPP are not compromised by the Proposal.
SEPP No. 44 - Koala Habitat Protection	Yes	Stage 1 has been biodiversity certified. It has assumed that the native vegetation in the area is Koala Habitat.  Koala credits are being retired in association with the proposed development as per the requirements of the Biodiversity Certification Order and EPBC approval.
SEPP No. 50 - Canal Estate Development	N/A	Not Applicable to this PP.
SEPP No. 55 - Remediation of Land	Yes	Contaminated lands investigations have identified 4 areas of Potential Areas of Environmental Concern (PAEC); A Remediation Action Plan has established that the PAECs can be made suitable for residential development.
SEPP No. 64 - Advertising & Signage	Yes	Any future advertising/signage will need to comply with the provisions of the SEPP.
SEPP No. 65 - Design Quality of Residential Flat Development	Yes	Residential flat buildings are permitted in the B4 Mixed Use Zone and shop housing in the B4 – Mixed Use Zone and R3 – Medium Density Residential Zone. Such forms of development should



		comply with the SEPP or at least the principles in the case of shop top housing.
SEPP No. 70 - Affordable Housing (Revised Schemes)	N/A	Not applicable to the subject land.
SEPP (Affordable Rental Housing) 2009	Yes	The Proposal does not prejudice the application of the SEPP and development of the various forms of affordable housing.
SEPP (Building Sustainability Index: BASIX) 2004	Yes	The PPR is not inconsistent with the application of the SEPP to residential development. All future residential development will need to comply with BASIX.
SEPP (Educational Establishments & Child Care Facilities) 2017	Yes	Any educational establishments will be subject to development approval in accordance with the provisions of the SEPP.
SEPP (Exempt & Complying Development Codes) 2008	Yes	The PPR is not inconsistent with the SEPP and the provisions of which would apply to future developments.
SEPP (Housing for Seniors or People with a Disability)	Yes	The PPR does not preclude future merit based provisions of housing for seniors and people with a disability.
SEPP (Infrastructure) 2007	Yes	Any future development in regards to Infrastructure provision on this site will be required to fulfil this SEPP at Development Application stage. The Proponent is currently working with the RMS and Sydney Water pursuant to this SEPP.
SEPP (Mining, Petroleum Production & Extractive Industries) 2007	N/A	The Planning Proposal does not impede potential mining of coal resources. As was the case with the original rezoning.
SEPP (Miscellaneous Consent Provisions) 2007	Yes	The Proposal does not conflict or hinder the achievement of the SEPP aims.
SEPP (Primary Production and Rural Development) 2019	Justifiably Inconsistent	The site is currently designated to be an 'urban release area.' 'Any interfaces with primary production areas and rural development will be addressed.
SEPP (State & Regional Development) 2011	N/A	Not Applicable to this PP.
SEPP (State Significant Precincts) 2005	N/A	Not Applicable to this PP.

SEPP (Sydney Drinking Water Catchment) 2011	N/A	Not Applicable to this PP.
SEPP (Sydney Region Growth Centres) 2006	N/A	Not Applicable to this PP.
SEPP (Vegetation in Non - Rural Areas) 2017	Yes	<p>The majority of the site is Biodiversity Certified with applications currently before Council to remove vegetation in line with the certification outcomes.</p> <p>The removal of additional vegetation will be required at the southern end of the site to facilitate the delivery of the revised open space masterplan. Post receipt of the Gateway Determination, an assessment of significance will be completed to verify the quality of this vegetation, the associated impact on this community and necessary offset strategy to mitigate these impacts. Removal of this vegetation will be subject to a future development application to Council.</p>
SREP No 20 Hawkesbury Nepean River	Yes	As per the original rezoning of the site, the inclusion of proposed LEP provisions in relation to the Terrestrial Biodiversity, and the delivery of water quality and quantity infrastructure ensure the protection of the Hawkesbury Nepean River system.

Assessment Against Relevant S9.1 Ministerial Directions		
Ministerial Direction	Consistency	Evaluation
<b>1.1 Business and Industrial Zones</b>		
This Direction seeks to encourage employment in suitable locations, protect appropriately zoned business and industrial land and support the viability of identified centres.	Yes	The Proposal seeks a modification to the existing zoning provision for commercially zoned land. (From B1 to B4)  The relocation and up zoning of the proposed local centre (B4) will provide for a retail and commercial hub. The Mixed Use Centre will not adversely impact the higher order centres of Campbelltown and Macarthur. However, further economic modelling will be required prior to public exhibition.
<b>1.2 Rural Zones</b>		
This Direction seeks to protect the agricultural production value of rural lands.	Justifiably Inconsistent	The small perimeter area zoned RU2 Rural Landscape and interfacing with the 'Balance Lands' is proposed to be rezoned to E2 Environmental Conservation and RE1 Public Recreation in accordance with its intended land use.  The current RU2 – Rural Landscape Zoning represents an interim transitional zoning having regard to the interface with the 'Balance Lands'. Such land however, has been previously endorsed as an Urban Release Area and any inconsistency with the subject Direction accepted.
<b>1.3 Mining, Petroleum Production</b>		
This Direction seeks to ensure petroleum production and extractive industries are not compromised by inappropriate development.	Yes	The original rezoning of the Gilead Urban Release Area acknowledged the primacy of urban development in the subject context and on acceptable outcome in respect of the subject Direction. The Proposal does not introduce elements that would change the former conclusion.
<b>1.5 Rural Lands</b>		
This Direction seeks to facilitate the protection of rural land and its intrinsic values and contributions to the social, economic and environmental outcomes.	Yes	The Direction does not apply to the Campbelltown Local Government Area.
<b>2.1 Environmental Protection Zones</b>		
This direction seeks to ensure that environmentally sensitive areas are not compromised.	Yes	The Proposal seeks to zone conservation areas E2 Environmental Conservation to assist in preserving the BioBank intentions.
<b>2.3 Heritage Conservation</b>		
This Direction seeks to conserve items, areas,	Yes	The Proposal does not compromise the heritage significance of the site or its broader

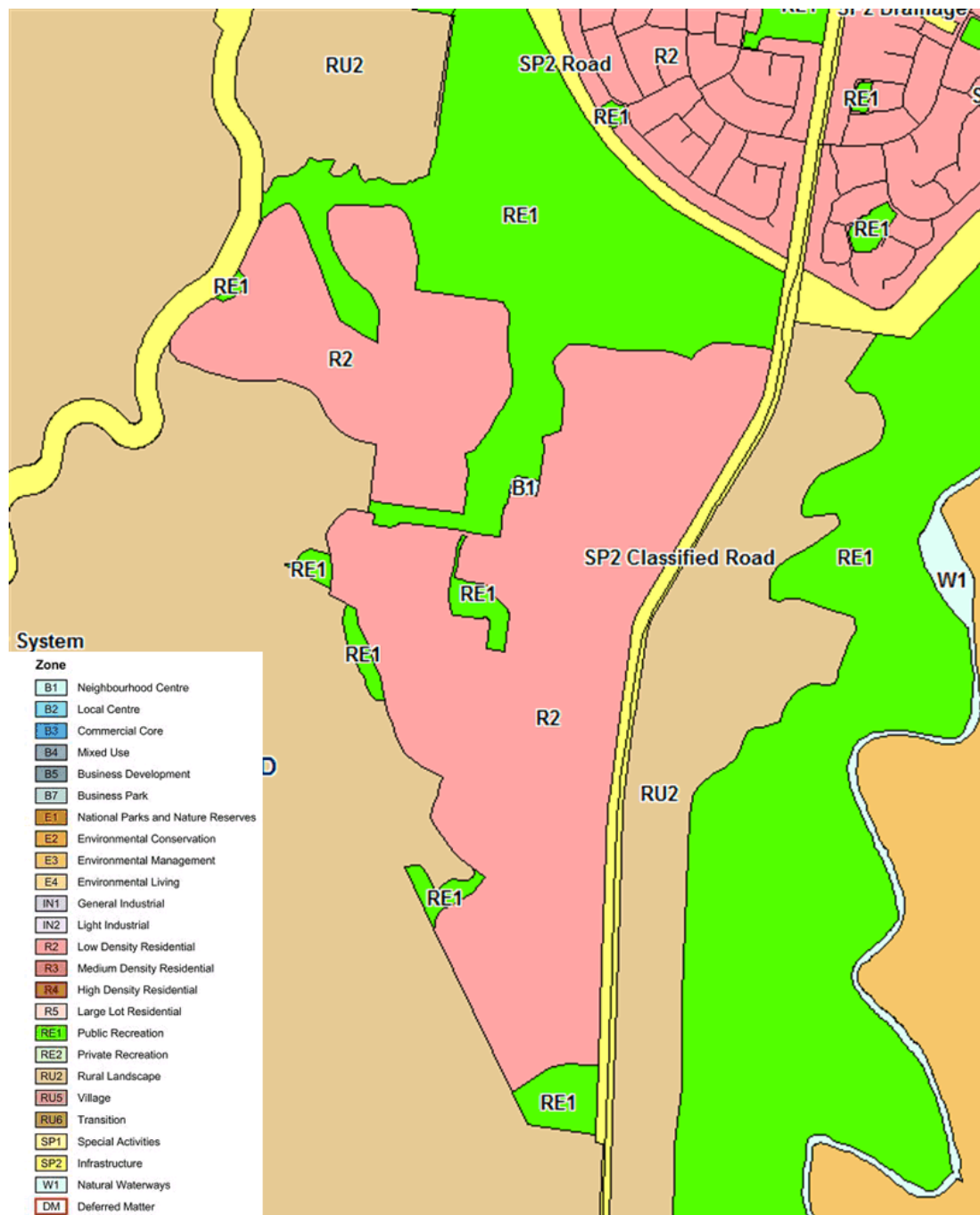
objects and places of environmental heritage significance and indigenous heritage significance.		context. (Including the Gilead Homestead and curtilage) It seeks to recognise the potential local significance of the former Hillsborough Homestead, via a public open space zoning.
<b>3.1 Residential Zones</b>		
This Direction seeks to encourage housing diversity, optimise use of infrastructure and minimise the impacts on resource lands.	Yes	The Proposal seeks to provide for enhanced housing diversity through the introduction of an R3 – Medium Density Residential Zone and greater variety in allotment sizes.  In doing so it seeks to optimise infrastructure investment outcomes. Additionally, a VPA will ensure a commitment to requisite infrastructure.
<b>3.2 Home Occupations</b>		
This Direction seeks to facilitate low impact small businesses in dwelling houses	Yes	The Proposal includes standard provisions to facilitate home occupations.
<b>3.4 Integrating Land Use and Transport</b>		
This Direction seeks to ensure urban structures, building forms, land use locations, development design, subdivision and street layouts achieve movement efficiencies, optimise amenity and safety and contribute to more sustainable community outcomes.	Yes	The Proposal provides a sensitive juxtaposition of land uses, with appropriate accessibility and is proximate to existing development.  The commitment to an upgrade of Appin Road (VPA) is critical to facilitating appropriate access.
<b>4.1 Acid Sulphate Soils</b>		
This Direction seeks to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulphate soils.	Yes	The original rezoning considered that the Acid Sulphate Soils present low risk, no further assessment is required.
<b>4.2 Mine Subsidence and Unstable Land</b>		
This Direction seeks to prevent damage to life, property and the environment on land identified as unstable or potentially subject to mine subsidence.	Yes	The land is in the South Campbelltown Mine Subsidence District. The relevant mine subsidence considerations underpinned the zoning for urban purposes in 2017. The current proposal is generally consistent in terms of the development impacts apart from the introduction of some increased residential densities. Such as, development forms can however, be appropriately managed in accordance with relevant subsidence paramount.
<b>4.3 Flood Prone Land</b>		
This Direction seeks to ensure flood hazards are appropriately managed in a	N/A	The site is not identified to be flood prone.

development context both on and off the subject land.		
<b>4.4 Planning for Bushfire</b>		
This Direction seeks to protect life, property and the environment from bushfire hazards, whilst, encouraging sound management of bushfire prone areas and discouraging incompatible land uses.	Yes	The proposal has had regard to Planning for Bushfire Protection 2006 and generally does not increase the fire hazard for the release area. Indeed it resolves site constraints that previously threatened the delivery of the Community Hub, through location.  An outline strategy has been developed to provide for appropriate hazard outcomes and will be further refined upon receipt of a favourable Gateway Determination.
<b>6.1 Approvals and Referral Requirements</b>		
This Direction seeks to ensure that the LEP provisions encourage the efficient and appropriate assessment of development.	Yes	The Proposal does not contain provisions that introduce additional concurrence requirements.
<b>6.2 Reserving land for Public Purposes</b>		
This Direction seeks to facilitate the provisions of public services and facilities by reserving the land for public purpose and remove any reservations of land for public purpose where land is no longer required for acquisition.	Yes	The provision of public open space is being rationalised in the Proposal. The rationalisation includes the designation of some current areas as conservation land (E2) in accordance with their principal purpose, the addition of open space corresponding with a potential local heritage site and additional open space for enhanced connectivity.  A final 'open space balance' must be resolved prior to public exhibition.
<b>6.3 Site Specific Controls</b>		
This Direction seeks to discourage unnecessarily restrictive site specific planning controls.	Yes	The Proposal pertains to amendments to the 'standard instrument' Campbelltown LEP 2015. No site specific provisions are proposed to be introduced to Campbelltown LEP 2015, via the Proposal.  It is noted however, that an independent Planning Proposal proposes to resite the proposed sales office/community facility as a Schedule 1 amendment.
<b>7.1 Implementation of a "Plan for Growing Sydney"</b>		
This Direction seeks to give legal effect to the planning principles; directions and priorities for subregions, strategic centres and transport gateways.	Yes	The Proposal is consistent with the Greater Sydney Region Plan as detailed in Attachment 1 such plan is the 'contemporary version' of the 'Plan for Growing Sydney.'
<b>7.2 Implementation of a "Greater Macarthur Land Release Investigation Area"</b>		
This Direction seeks to ensure development within the Greater Macarthur Land	Yes	The Proposal is considered to be generally consistent with the Greater Macarthur 2040:

Release Investigation Area is consistent with the Greater Macarthur Land Release Preliminary Strategy and Action Plan.		An Interim Plan for the Greater Macarthur Greater Area.
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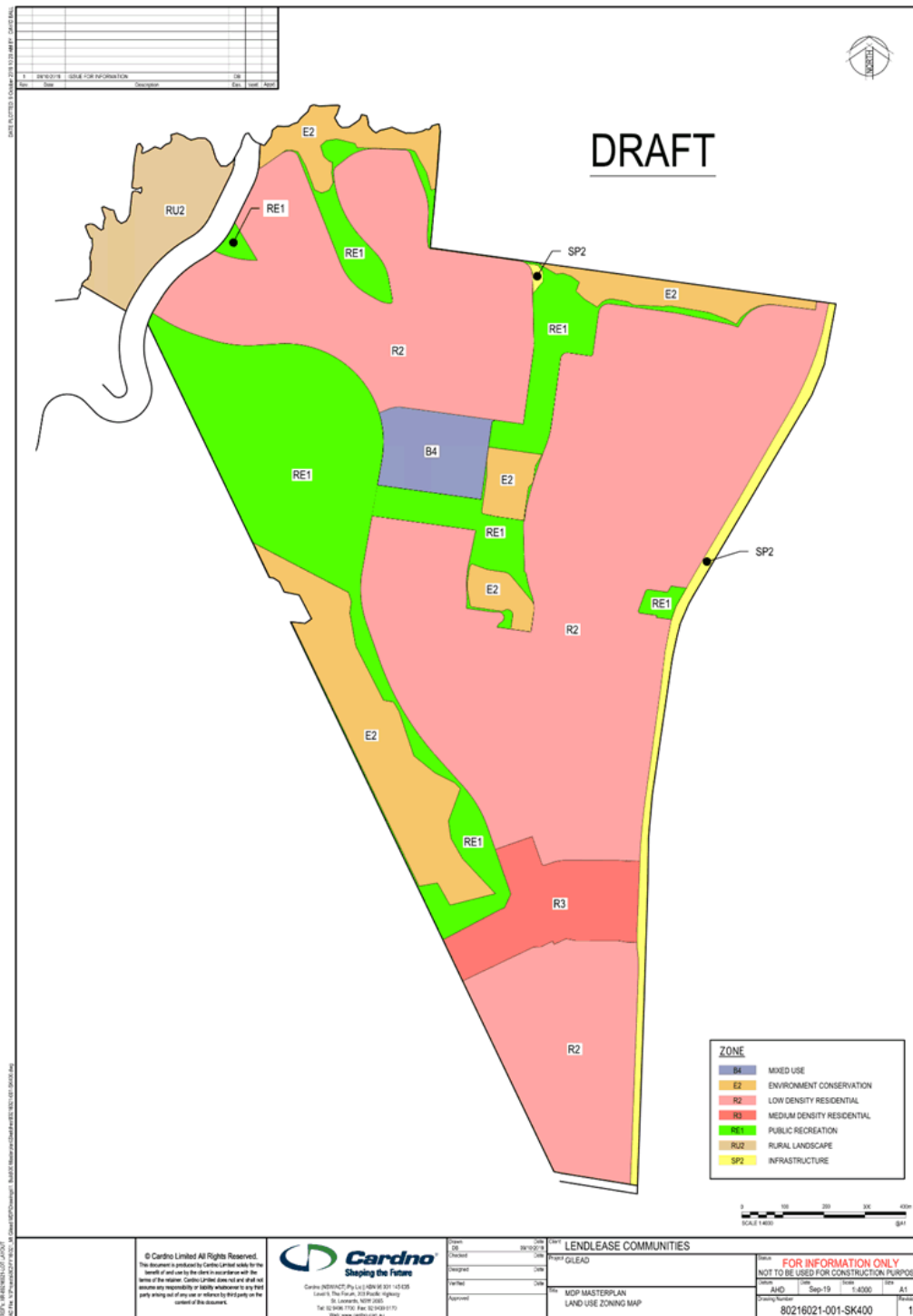
Attachment '4' – CLEP Mapping

Existing Zoning Map



Attachment '4' – CLEP Mapping

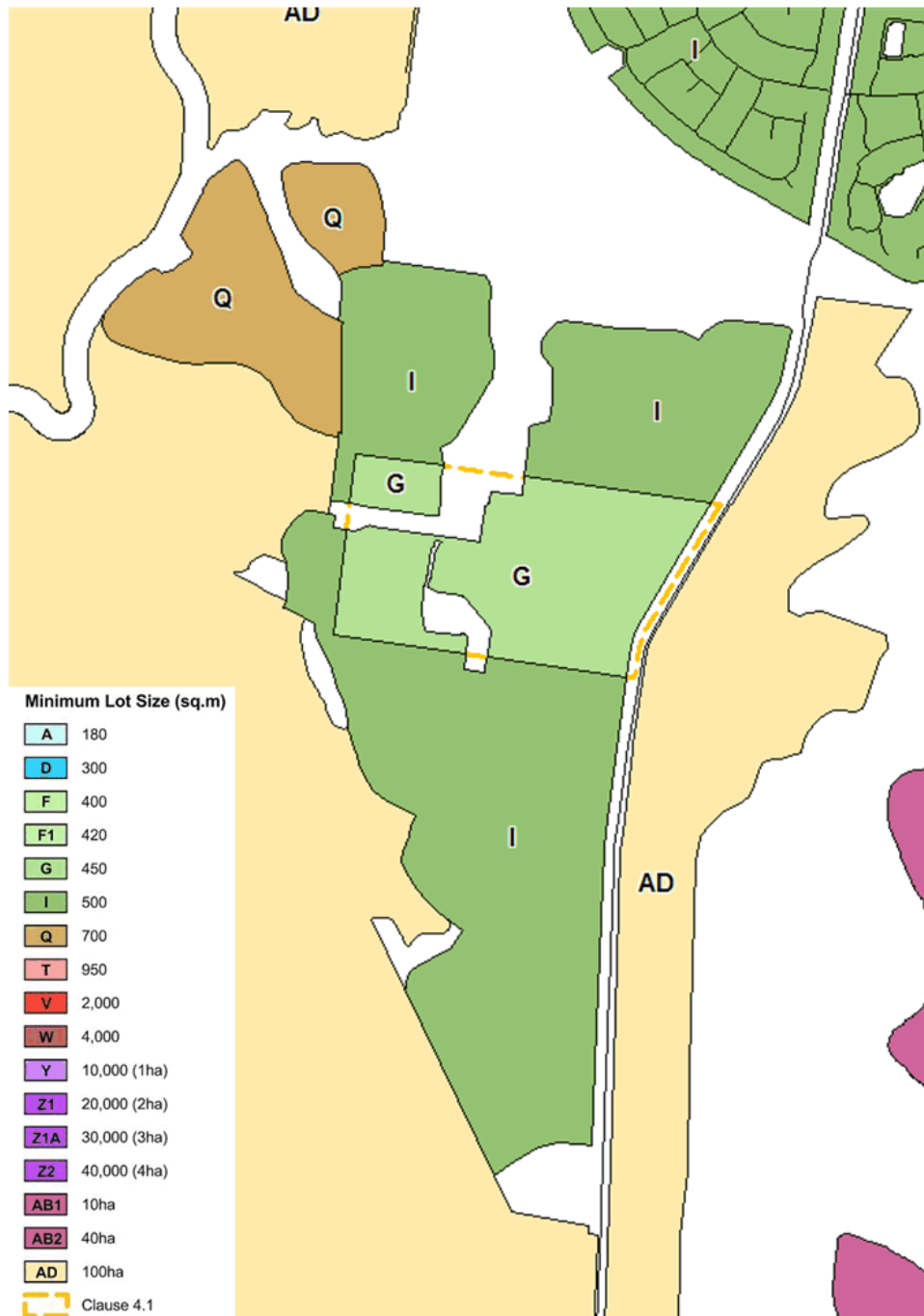
Proposed Zoning Map





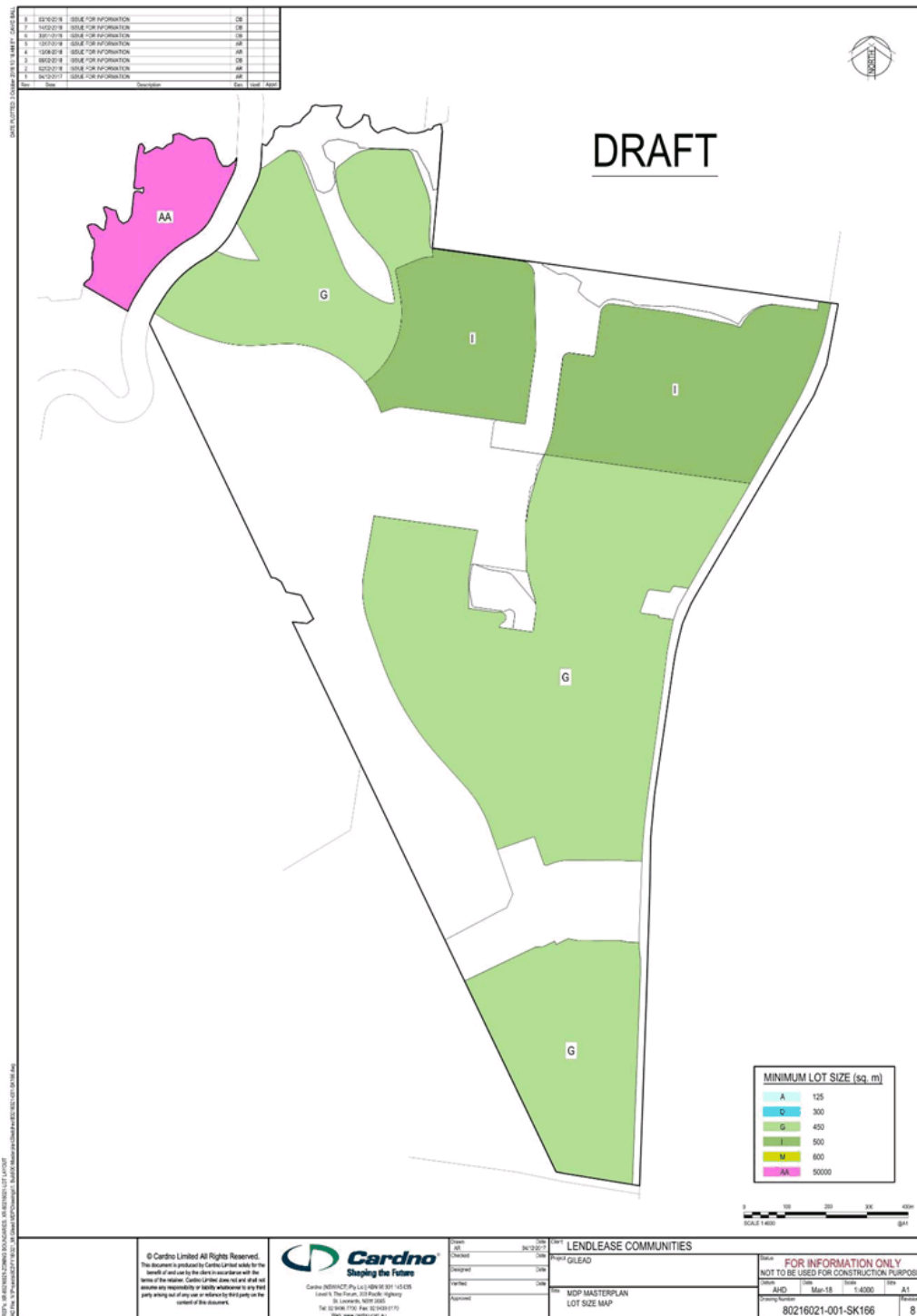
Attachment '4' – CLEP Mapping

Existing Lot Size Map



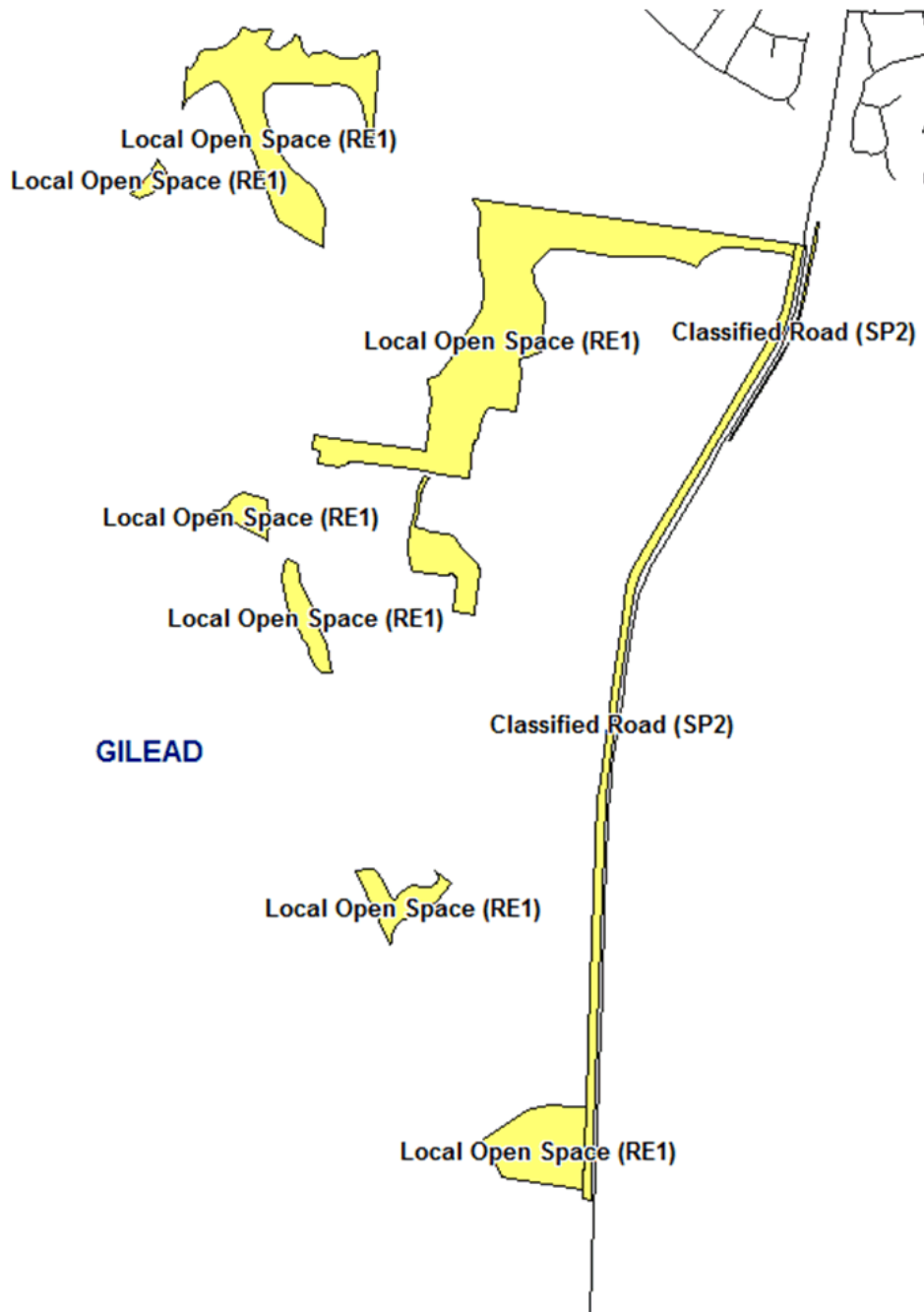
Attachment '4' – CLEP Mapping

Proposed Lot Size Map



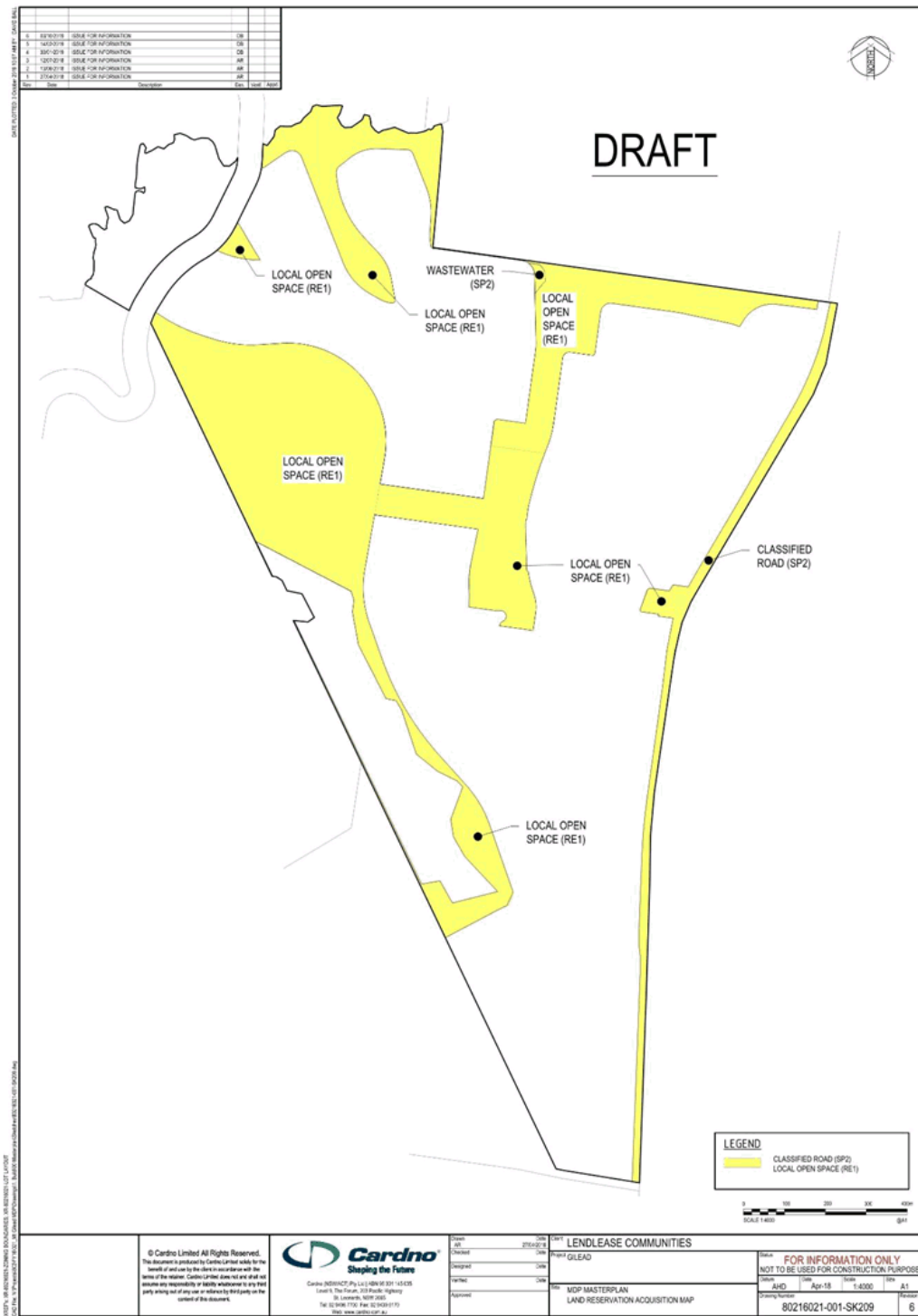
Attachment '4' – CLEP Mapping

Existing Land Reservation Acquisition Map



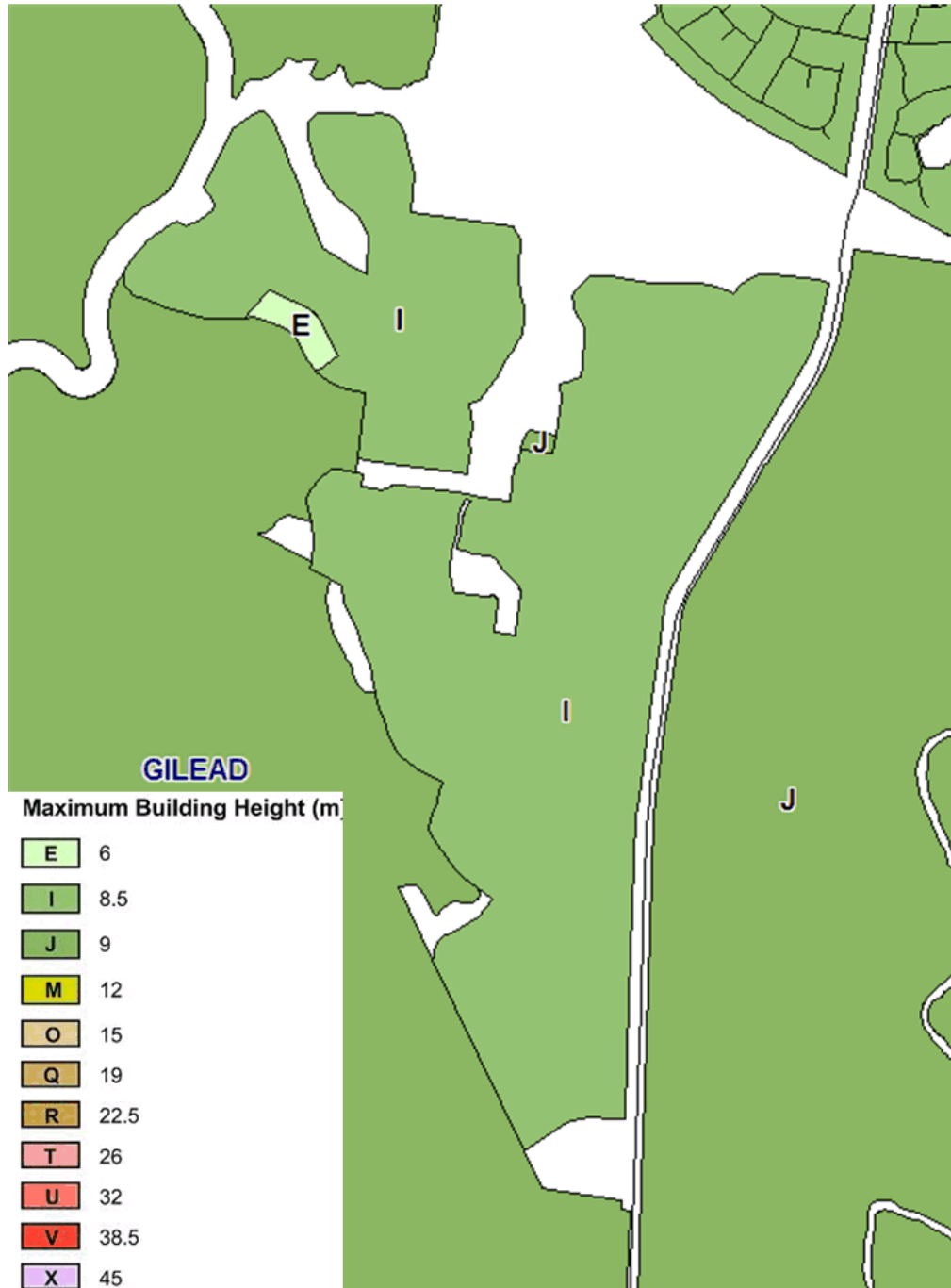
Attachment '4' – CLEP Mapping

Proposed Land Reservation Acquisition Map



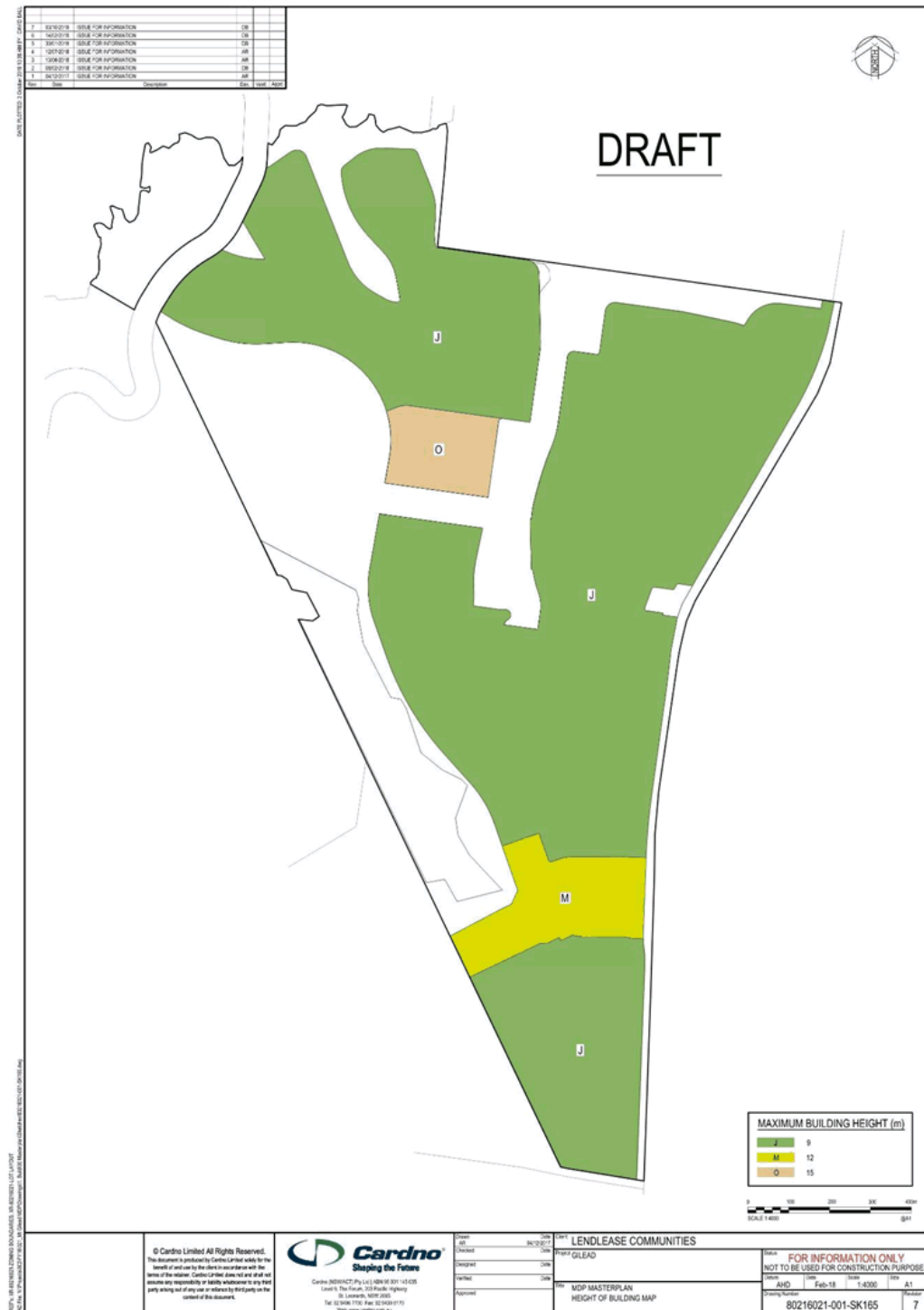
Attachment '4' – CLEP Mapping

Existing Height of Building Map



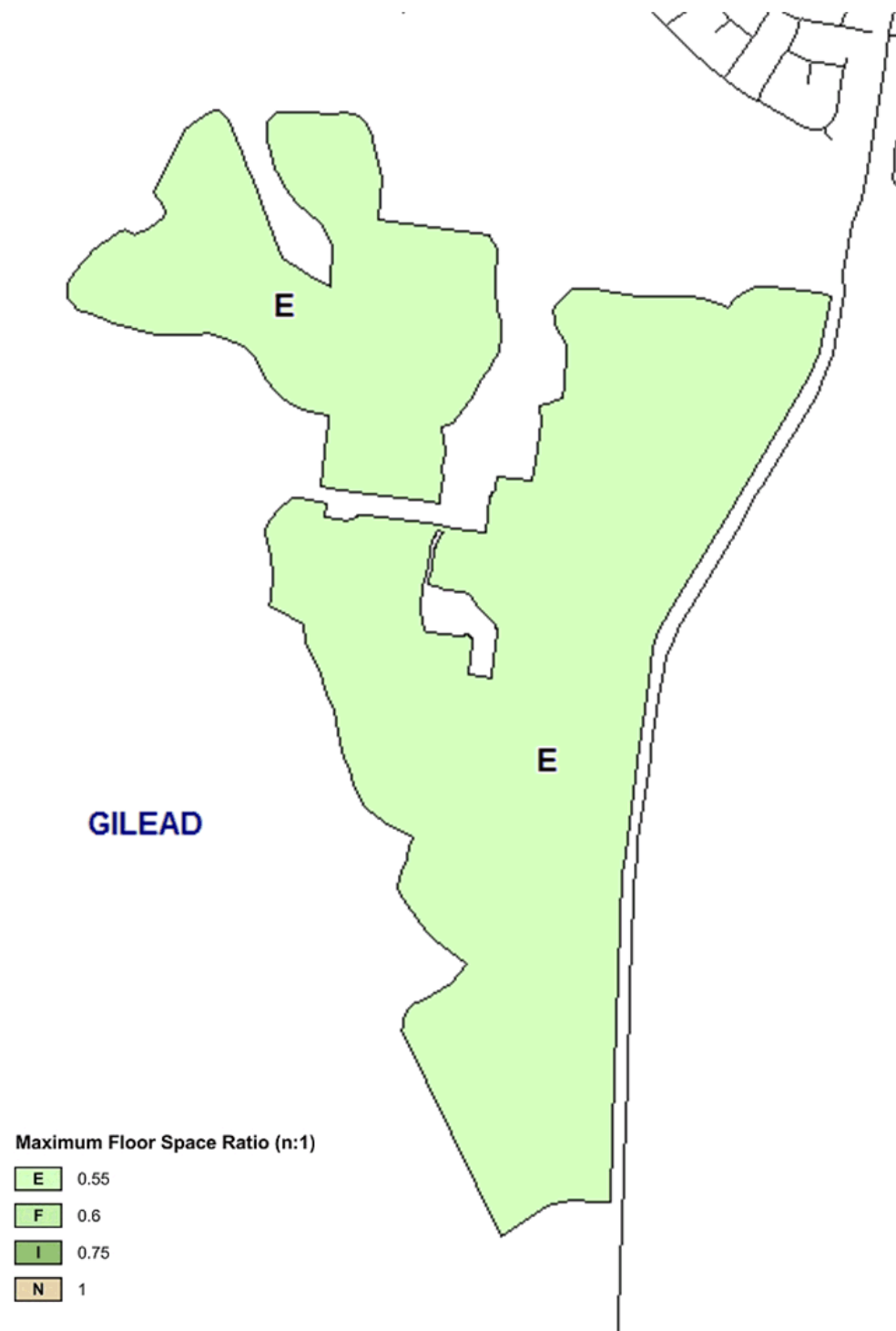
Attachment '4' – CLEP Mapping

Proposed Height of Building Map



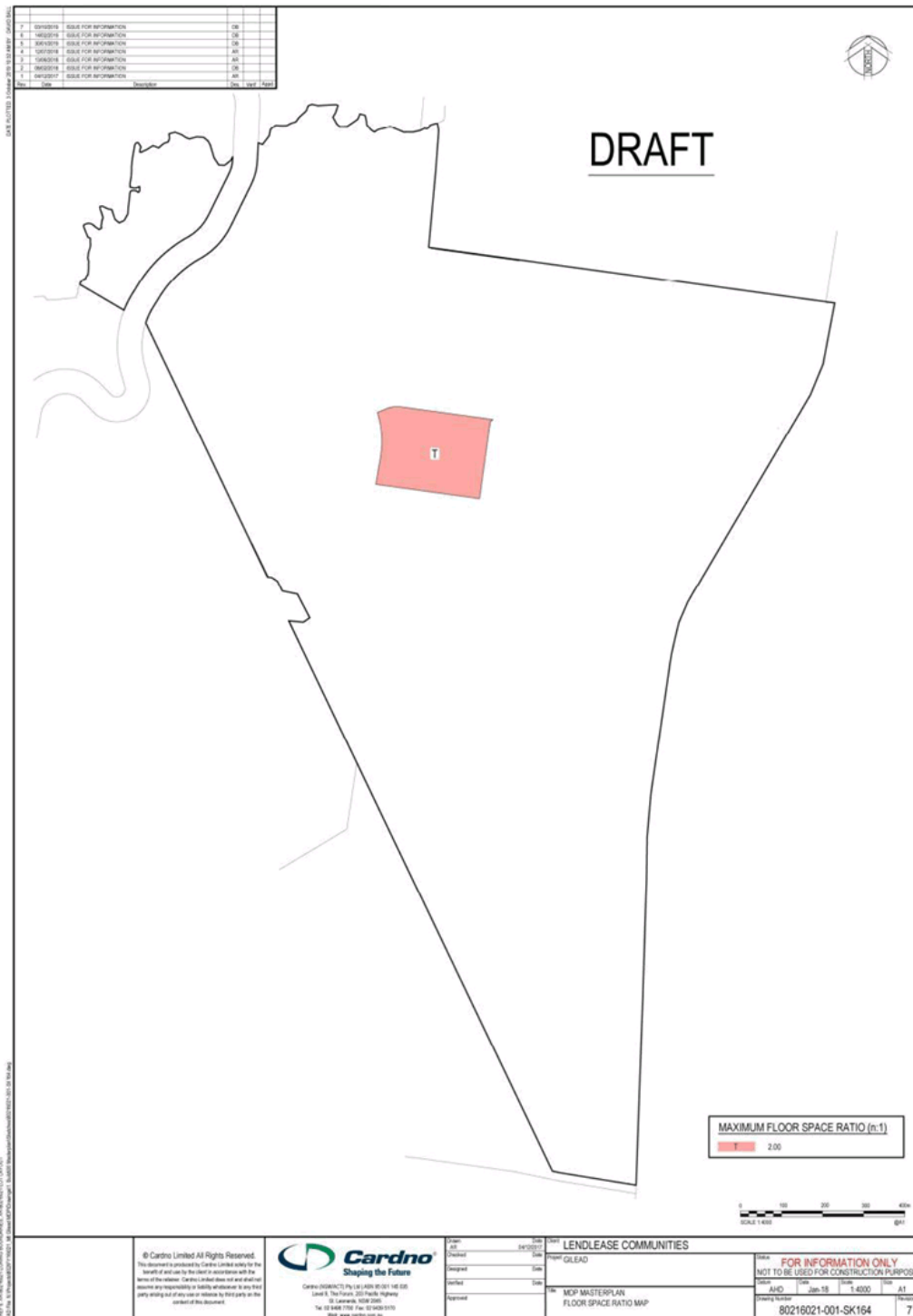
Attachment '4' – CLEP Mapping

Existing Floor Space Ratio Map



Attachment '4' – CLEP Mapping

Proposed Floor Space Ratio Map



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**Attachment '4' – CLEP Mapping****Proposed Clause 4.1H**

*This clause applies to land within **Area 1** on the Menangle Park Urban Release Area Map and the Mount Gilead Urban Release Area Map.*

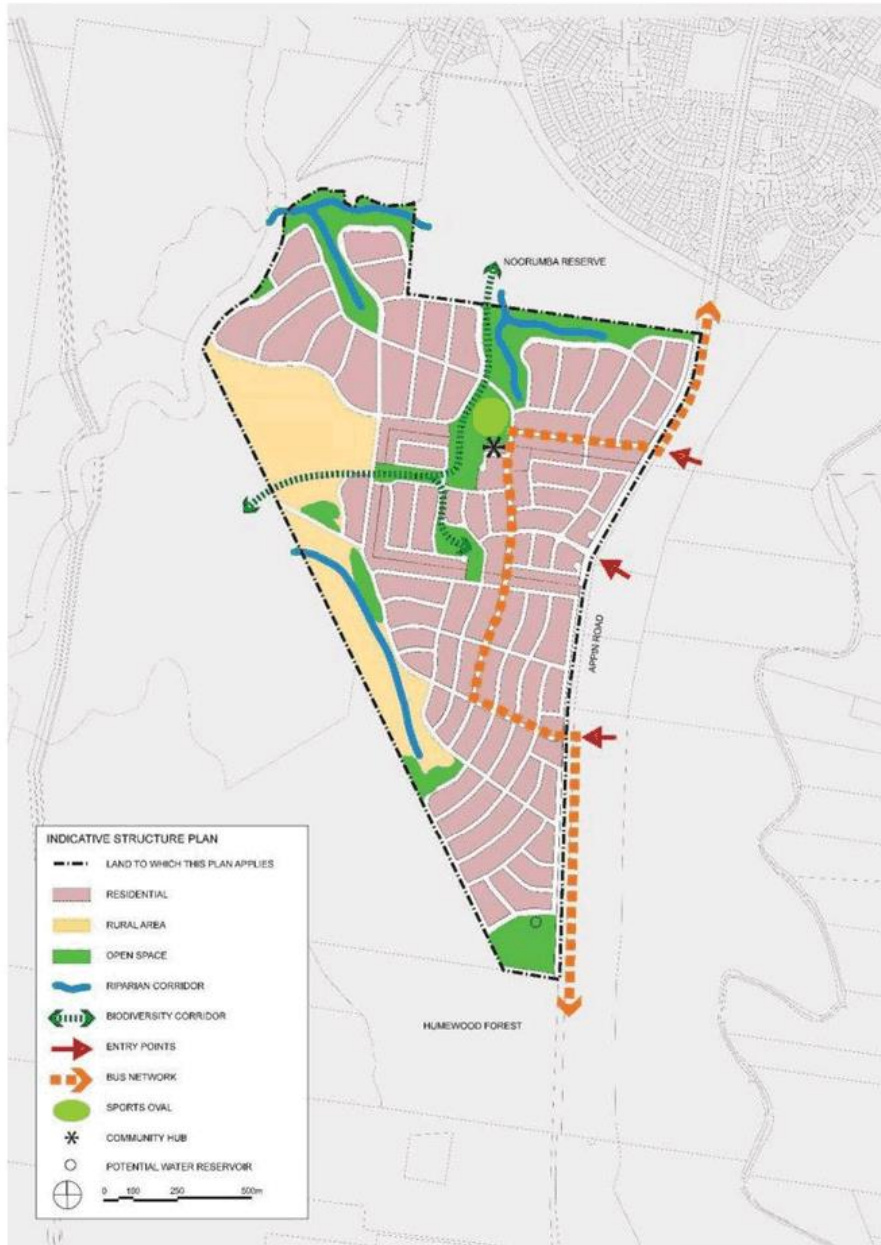
1. *The objective of this clause is to achieve planned residential density in certain zones.*
2. *Development must not be carried out on a lot in **Zone R3 Medium Density Residential** for any of the following purposes if the area of the lot is less than the area specified below in relation to those purposes:*
  - *Dwelling House (detached): 250m<sup>2</sup>*
  - *Semi detached dwellings: 250m<sup>2</sup>*
  - *Dual Occupancy: 500m<sup>2</sup>*
  - *Secondary Dwellings: 450m<sup>2</sup>*
  - *Attached Dwellings: 200m<sup>2</sup>*
  - *Multi Dwelling Housing: 1,500m<sup>2</sup>*
3. *Development consent may be granted for the subdivision of land within **Lot 1 DP 1240836, Lot 2 DP 1240836, Lot 3 DP 1240836, Lot 4 DP 1240836, Lot 5 DP 1240836; and Lot 61 DP 752042** on the Mount Gilead Urban Release Area Map Area on land zoned **R2 Low Density Residential** into lots that do not meet the minimum size shown on the Lot Size Map if:*
  - a) *each lot has a minimum lot size of not less than 375m<sup>2</sup>, and*
  - b) *each lot has a minimum primary road frontage of 11.5m, and*
  - c) *each lot is not a corner allotment, and*
  - d) *no more than 170 lots have a lot size of less than 450m<sup>2</sup> within the subject land to which this clause applies, and*
  - e) *no more than 3 contiguous lots sharing a street frontage have a lot size of less than 420m<sup>2</sup>, and*
  - f) *each lot is located not more than 200m from a bus stop or open space area.*
4. *Development consent may be granted for the subdivision of land within **Lot 1 DP 1240836, Lot 2 DP 1240836, Lot 3 DP 1240836, Lot 4 DP 1240836, Lot 5 DP 1240836; and Lot 61 DP 752042** on the Mount Gilead Urban Release Area Map Area on land zoned **R2 Low Density Residential** into lots that do not meet the minimum size shown on the Lot Size Map if:*
  - a) *each lot has a minimum lot size of not less than 300m<sup>2</sup>, and*
  - b) *each lot has a minimum primary road frontage of 10m, and*
  - c) *each lot is not a corner allotment, and*
  - d) *no more than 170 lots have a lot size of less than 450m<sup>2</sup> within the subject land to which this clause applies, and*
  - e) *no more than 3 contiguous lots sharing a street frontage have a lot size of less than 420m<sup>2</sup>, and*
  - f) *each lot is located not more than 200m from a bus stop or open space area.*

Attachment '4' – CLEP Mapping

Existing Structure Plan

Part 7  
MT GILEAD

Figure 2: Mt Gilead Indicative Structure Plan



Attachment '4' – CLEP Mapping

Proposed Structure Plan



Attachment '4' – CLEP Mapping

Open Space Breakdown

