



# STATEMENT OF ENVIRONMENTAL EFFECTS



# 5-7 KESTRAL AVENUE THORNTON

**Prepared By:** LILLY LEARY

**Date:** 17 JANUARY 2022



## 1. Introduction

This Statement of Environmental Effects has been prepared by the Zreicon Pty Ltd in support of the Development Application to Maitland City Council. The application seeks Council's consent for the use of part of Lot 602 & 603 in DP1005289 on a time limited basis for an industrial training facility.

This Statement of Environmental Effects describes the proposed development, the social and physical context in which it is proposed to be established and makes an assessment of the relevant matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979 (as amended). The report should be read in conjunction with the following plans and documentation:

- Site Location Plan & Proposed Development Plans attached at **Appendix 1**,
- Maitland development control plan 2011 at **Appendix 2**; and
- Traffic and parking report **Appendix 3**.



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## 2. THE SITE

This section of the report describes the site in order to place the development proposal in context.

### 2.1. SITE LOCATION

The site is located on the eastern side of the M1 Motorway. Thornton is situated between the regional centre of Maitland and Raymond Terrace, within the lower hunter valley. It is located within the Maitland LGA. The land has a frontage of 86,905 meters see site plan attached at **Appendix 1**.

### 2.2. PHYSICAL DESCRIPTION

The land has a total area of approximately 5987m<sup>2</sup>. The land is proposed to be 19 industrial units under a 19-lot subdivision.

The land that is the subject of the application is only part of the total site and as an area of 5987m<sup>2</sup> with a frontage 86, 905 Meters.

The subject land was previously vacant industrial and has existing access from the frontage of land in which connects onto Kestrel Avenue. It is proposed to utilise this access in the short term until such time as the General industrial development of the 19 lot subdivision proceeds.

This site has been previously cleared of vegetation and no further vegetation removal is proposed as part of the application.

### 2.3. REAL PROPERTY DESCRIPTION

The real property description for the land is LOT 602 & 603 in DP 1005289.

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### 3. THE PROPOSAL

*The proposal involves use of IN1 land for the purpose of a development that consists of “General Industrial Units”.*

*The development has a proposed 19 industrial units*

*A maximum of people would be onsite at any one time.*

*The proposed layout of the site is demonstrated on the plans attached at appendix 1.*

*As noted elsewhere, the area of use is approximately 5987m<sup>2</sup>. Car parking spaces are proposed to be utilized for the facility is isolated from neighboring properties. Please see traffic and parking report attached at Appendix 3.*

*The volume of traffic associated with the facility is negligible and will be less than 40 vehicle trips per day.*

*Erosion and sediment control fencing will be constructed on perimeter of the site and a water cart will be on site during works to ensure dust emissions are minimized.*

#### 3.1 Overview

*The proposed site layout is demonstrated on the plans attached Appendix 2 of this report.*

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#### 4. Statutory Provisions (4.15 (1) EPAA 1979)

This section of the report deals with the relevant statutory matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979 (as amended). Specifically, the relevant environmental planning instruments (Regional, State and Local Plans both current and draft) applying to the land and any relevant Development Control Plans are also discussed.

#### 4.1 THE PROVISIONS OF ANY ENVIRONMENTAL PLANNING INSTRUMENTS

##### 4.1.1 Rural Fires Act 1997

The objects of the Act are to provide:

- (a) For the prevention, mitigation and suppression of bushfire and other fires in local government areas (or parts of areas) and other parts of the State constituted as Rural Fire Districts, and
- (b) For the co-ordination of bushfire fighting and bushfire prevention throughout the State, and
- (c) For the protection of persons from injury or death, and property from damage, arising from fires, and
- (cl) For the protection of infrastructure and environmental, economic, cultural, agricultural and community assets from damage arising from fires, and
- (d) For the protection of the environment by requiring certain activities referred to in paragraphs (a) to (c)(l) to be carried out having regard to the principals of ecologically sustainable development described in Section 6(2) of the Protection of the Environment Administration Act 1991.

The subject land is mapped as bushfire prone land. The Concept Approval issued for the Major Project provided at Condition 1.27 that any subdivision application must:

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- (a) *Demonstrate the development complies with the planning for Bushfire Protection 2006.*
- (b) *Demonstrate that the location, layout and management arrangements for APZ has been negotiated, and agreed to, with Council and the RFS.*
- (c) *Provide a map showing the composition of APZs including the inner and outer protection zones and their relationship to the proposed building footprints.*
- (d) *Outline proposed arrangements for management of bushfire hazard and APZs during the development process.*

A report has been prepared by Building Code and Bushfire Hazard Solutions and responds to these requirements. It should be noted that all Asset Protection Zones are outside of the designated riparian corridor. The proposal meets the requirements of planning for Bushfire

## **4.2 REGIONAL ENVIRONMENTAL PLANS**

The Hunter Regional Plan 2036 sets the vision for the Hunter to be the leading regional economy in Australia with a vibrant metropolitan city at its heart. In order to deliver on the broad vision for the Region, the Greater Newcastle Metropolitan Plan has been prepared deals specifically with the subject land and is discussed below.

### **4.2.1 Greater Newcastle Metropolitan Plan**

Under the Plan, Beresfield - Black Hill is identified as a "Catalyst Area" for Greater Newcastle. The desired role for the area is as

- A "Freight and logistic hub, with complementary manufacturing and light industrial activity.
- *Having the potential for growth and expansion of industries.*<sup>11</sup>

for the Beresfield Precinct, the Plan notes that Newcastle City Council will align local plans to:

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- "promote freight and logistics, manufacturing and other light industrial uses.
- *Protect the freight corridor and integrate new freight and logistics related technologies to improve efficiency."*

With regard to the subject land, the Plan identifies the "Emerging Black Hill Precinct" and notes that:

"Cessnock City Council and Newcastle City Council will work with Transport for NSW to prepare a masterplan for the emerging Black Hill Precinct that considers freight and logistics uses, the adjoining mine site and includes an internal road network and accesspoints to John Renshaw Drive."

The future subdivision will facilitate the establishment of Industrial Uses consistent with the objectives for both Beresfield and the emerging Black Hill Precinct. The subject proposal is an interim use of the land on a temporary, time limited basis for a permissible use in the current zoning.



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#### 4.3 STATE ENVIRONMENTAL PLANNING POLICIES (SEPPS) (4.15(I)(A)(I))

The minister for planning has notified that the following State Environmental Planning Policies shall be specified on Certificates under section 10.7 of the environmental Planning Assessment act, 1979.

The land is affected by the following state environmental Planning Policies

- SEPP21 Caravan Parks
- SEPP (Mining, Petroleum Production and Extractive Industries) 2007
- SEPP (State and Regional Development) 2011
- SEPP33 Hazardous and offensive Development
- SEPP36 Manufactured Home Estates
- SEPP (Koala Habitat Protection) 2019
- SEPP50 Canal estate Development
- SEPP (Housing for Seniors or People with a Disability) 2004
- SEPP55 Remediation of land
- SEPP Affordable Rental Housing 2009
- SEPP Building Sustainably Index: BASIX 2004
- SEPP (Exempt and Complying Development Codes) 2008
- SEPP (Infrastructure) 2007
- SEPP64 Advertising and Signage
- SEPP Primary Production and Rural Apartment Development
- SEPP70 Affordable housing (Revised Schemes)
- SEPP (Concurrences and consents) 2018
- SEPP Vegetation in Non-Rural Areas 2017
- SEPP (Educational Establishments and Child Care Facilities) 2017



#### 4.1 LOCAL ENVIRONMENTAL PLANS

- Local Environmental Plan (LEP) Maitland LEP 2011, Published 16 December 2011, Applies to land.
- Development control plan prepared by council  
Maitland Development Control Plan 2011 applies to this land.

##### 4.1.1 Newcastle City Local Environmental Plan 2012 (NLEP2012)

###### Zone IN1 General Industrial

###### 1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To provide a limited range of retailing activities that accommodate the everyday needs of employees within the zone and do not adversely affect the viability of centres.

###### 2 Permitted without consent

Nil

###### 3 Permitted with consent

Depots; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial training facilities; Kiosks; Landscaping material supplies; Light industries; Liquid fuel depots; Neighbourhood shops; Places of public worship; Plant nurseries; Roads; Rural supplies; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

###### 4 Prohibited

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Passenger transport facilities; Places of public worship; Public administration buildings; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor);



Registered clubs; Research stations; Residential accommodation; Respite day care centres; Schools; Tourist and visitor accommodation; Veterinary hospitals; Water recreation structures; Wharf or boating facilities

#### **4.2.2 Maitland development Control Plan 2011**

Development control plan prepared by council  
Maitland Development Control Plan 2011 applies to this land.

### **Division 1 Industrial development**

#### **15 Objectives**

The objectives of this plan in relation to planning strategies concerning industrial development are:

- (a) to ensure that sufficient zoned and serviced industrial land is provided in locations appropriate to the needs of industry, while ensuring protection of the environment, and
- (b) to promote the distribution of employment in secondary industry in a manner compatible with the availability of services and distribution of population.

#### **4.4.1.1 Other Relevant matters under NLEP 2012**

The subject land is not affected by any Minimum Lot Size, Maximum Floor Space Ratio (FSR), European Heritage Item or other matters in the LEP Maps with the exception of the Acid Sulphate Soils map discussed below.

Clauses 6.1 and 6.2 of the LEP are relevant to the proposal. Clause 6.1 relates to Acid Sulphate Soils whilst Clause 6.2 relates to proposed earthworks.





#### 4.4 THE PROVISION OF ANY DEVELOPMENT CONTROL PLAN (4. IS(I)(A)(III))

A draft chapter for the Maitland Development Control Plan has been prepared in conjunction with Maitland City Council. The draft Chapter identifies Chapters of the DCP that will apply to development on the Subject land including the following: -

- 3.01 Subdivision
- 3.13 Industrial Development
- 7.02 Landscape open space and visual amenity
- 7.03 Traffic, Parking and Access
- 7.04 Movement Networks
- 7.02 Stormwater
- 7.07 Water Efficiency
- 7.09 Outdoor Advertising Signage

Draft Chapter 6.16 relates specifically to the Precinct and has controls to guide development. These controls however relate to the future development of the land and not to an interim use of the land as proposed. Notwithstanding it is noted that all relevant matters have been addressed in terms of vegetation retention, setbacks and buffer areas.



#### **4.5 ANY PLANNING AGREEMENT (4.IS(I)(A)(III)(A))**

On 6 June 2013 Coal and Allied Operations Pty Limited and Black Hill Land entered into a Voluntary Planning Agreement with the NSW Government Minister for Planning and Infrastructure and Environment and Minister Administering the National Parks and Wildlife Act 1974 in relation to a proposed industrial land development at Black Hill being the current Concept Approval. The VPA set out amongst other things the area of environmental offset land necessary to offset the environmental impacts of the proposed development. The physical transfer of the environmental offset land as nominated in the VPA from Coal and Allied to the NSW National Parks estate has occurred and hence the agreed biodiversity offsets have been delivered.

In addition, the VPA provided for the implementation of a weed management programmed detailed in the RPS accompanying the original Concept Plan. This work will be required to be undertaken by the developer of the land as set out in the VPA. The current proposal satisfies the requirements of the VPA.

#### **4.6 THE REGULATIONS (4.IS(I)(A)(IV))**

There are no matters contained in the regulations of relevance to the current application. Council's attention is drawn, however, to correspondence dated 8 January 2015 from the NSW Government Department of Planning and Infrastructure attached at **Appendix 9**. This correspondence confirms that under the Concept Plan Approval, future development applications including any stages thereof, are to be assessed under Part 4 of the Act. Furthermore, in accordance with Section 75(P2){b) future development applications are not considered to be integrated development as defined by Section 91 of the Act and would not be subject to the integrated development provisions of the Act. I also note that Section 3B of Schedule 6A of the Act also outlines the specific provisions relating to concept plan and approvals. The correspondence also notes that the Department and Office of Environment and Heritage were satisfied that the Conservation Lands that were subject to the VPA adequately offset the impacts of the proposed development. Further, the Department therefore considered that sufficient information had already been provided to address impacts on threatened species.



#### **4.7 LIKELY IMPACTS OF THE DEVELOPMENT ON THE NATURAL AND BUILT ENVIRONMENT (4.IS(I){B})**

The potential impacts are detailed below.

##### **4.7.1 Impact on the Natural Environment**

Mitigation measures have been developed to address the concerns and it is considered that appropriate conditions of consent will ensure that potential impacts on the natural environment can be mitigated.

##### **4.7.2 Impact on the Built Environment**

Future development of the subject land has the potential to impact on the built environment as a result of increased traffic generation, noise and future built form. These potential concerns have been addressed in the various reports accompanying the development application and it is concluded that subject to the implementation of the recommendations and mitigation measures detailed in the reports that the potential impacts can be mitigated.

##### **4.7.3 Economic Impact**

The proposed training facility will fill an existing gap in the market. In this regard the facility will allow machine operators to develop their skills and to fill existing employment vacancies.

##### **4.7.4 Social Impact**

The proposal is considered likely to have a positive social impact by facilitating relevant workspace opportunities for the zoned area.

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#### 4.8 SUITABILITY OF THE SITE

The site is zoned for the proposed use and has been identified in the Greater Newcastle Metropolitan Plan as a suitable location for the establishment of the future industrial subdivision. The basic framework for the future development of the land has been set in the approval of the Major Project Concept Approval. This application is generally in accordance with the approval and the site is suitable for the form of development proposed.

#### 4.9 ANY SUBMISSIONS

Nonrelevant.

#### 4.10 THE PUBLIC INTEREST

### 5. CONCLUSION

The development will create employment opportunities and will have a positive social and economic impact on both the locality and the region.

Any potential adverse impacts associated with the development can be mitigated via the imposition of conditions of development consent with ongoing management and maintenance obligations as set out in the accompanying reports attached to this Statement of Environmental Effects.

Council's favorable consideration of the application is request.

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## Appendix's

Appendix 1 – Site Location Plan & Proposed Development Plans

Appendix 2 – Maitland Development Control Plan (DCP) 2011

Appendix 4 – Parking & Traffic Management Report



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**Date: 17 JANUARY 2022**

# **Appendix 1**



# > DEVELOPMENT APPLICATION - ISSUE A

- > PROPOSED INDUSTRIAL UNITS
- > LOT 602 & 603 DP 1005289
- > 5 & 7 KESTRAL AVENUE, THORNTON, NSW, 2322

## > COMPLIANCE TABLE

ITEM DETAILS	DEVELOPMENT APPLICATION - Issue A			
ADDRESS	STREET ADDRESS SUBURB NSW POSTCODE			
LOT & DP/SP	LOT 602 & LOT 603 DP 1005289			
COUNCIL	MAITLAND			
SITE AREA	LOT 602 - 3331.41m <sup>2</sup> LOT 603 - 2648.31m <sup>2</sup>			
FRONTAGE	LOT 602 - 44.00 m LOT 603 - 42.905 m			
CONTROLS	PERMISSIBLE / REQUIRED m / m <sup>2</sup> / %	EXISTING m / m <sup>2</sup> / %	PROPOSED m / m <sup>2</sup> / %	COMPLIANCE
LEP	B5 BUSINESS DEVELOPMENT	B5	B5	YES
LAND ZONING	NOT IDENTIFIED	LOT 602 - 3331.41m <sup>2</sup>	UNCHANGED	YES
MINIMUM LOT SIZE	NOT IDENTIFIED	LOT 603 - 2648.31m <sup>2</sup>	UNCHANGED	YES
FLOOR SPACE RATIO	NOT IDENTIFIED	N/A	N/A	N/A
MAXIMUM BUILDING HEIGHT	NOT DEFINED	VACANT SITE	8.841m max.	YES
HAZARDS				
ACID SULFATE SOILS	IDENTIFIED - CLASS 5	N/A	N/A	N/A
FORESHORE BUILDING LINE	IDENTIFIED	N/A	N/A	N/A
COASTAL HAZARDS	NOT IDENTIFIED	N/A	N/A	N/A
HIGH/MED/LOW FLOOD RISK PRECINCT	NOT IDENTIFIED	N/A	N/A	N/A
HERITAGE	NOT IDENTIFIED	N/A	N/A	N/A
BIODIVERSITY AREA	NOT IDENTIFIED	N/A	N/A	N/A
GEOTECHNICAL HAZARDS	NOT IDENTIFIED	N/A	N/A	N/A
BUSHFIRE PRONE LAND	NOT IDENTIFIED	N/A	N/A	N/A
DCP				
NUMBER OF STOREYS	2	VACANT SITE	1	YES
SIDE BOUNDARY ENVELOPE	NOT DEFINED	VACANT SITE	50mm	YES
SIDE BOUNDARY SETBACKS	SPECIFIED BY ORDINANCE 70	VACANT SITE	50mm	YES
FRONT BOUNDARY SETBACK	5 m	VACANT SITE	5m	YES
REAR BOUNDARY SETBACK	SPECIFIED BY ORDINANCE 70	VACANT SITE	50mm	YES
LANDSCAPING	DCP PART C.5.3 - LANDSCAPING	VACANT SITE	FRONT SETBACK & CAR PARK	YES
ACCESS DRIVEWAY	DCP PART C.5.3 - MINIMUM 6m WIDTH	LOT 602 - 11.672m LOT 603 - 11.622m	UNCHANGED	YES

## > SHEET INDEX

DWG No.	DRAWING TITLE
A / DA01	COVER SHEET
A / DA02	SITE SURVEY
A / DA03	PROPOSED SITE PLAN + CAR PARK PLAN
A / DA04	FLOOR PLAN - LOT 602
A / DA05	FLOOR PLAN - LOT 603
A / DA06	ROOF PLAN - LOT 602
A / DA07	ROOF PLAN - LOT 603
A / DA08	ELEVATIONS
A / DA09	ELEVATIONS
A / DA10	SECTIONS



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REV	DATE	NOTES
01.	05/09/2021	SCHEMATIC DESIGN - ISSUE A
02.	11/10/2021	SCHEMATIC DESIGN - ISSUE B
03.	09/12/2021	DEVELOPMENT APPLICATION - (FOR REVIEW)
04.	22/02/2022	DEVELOPMENT APPLICATION - ISSUE A

CLIENT  
 LEVANT INVESTMENTS PTY. LTD.  
 LOT 602 & 603 KESTRAL AVE. THORNTON, NSW

PROJECT  
 PROPOSED INDUSTRIAL COMPLEX

DRAWING TITLE  
 COVER SHEET

DRAWING STATUS  
 DEVELOPMENT APPLICATION - ISSUE A

JOB NUMBER  
 20.21.16

LAYOUT NO.  
 A / DA01

DRAWN BY  
 CS

REVISED BY  
 LT

SCALE  
 1:1, 1:100 @ A2

PRINT DATE  
 22/02/2022

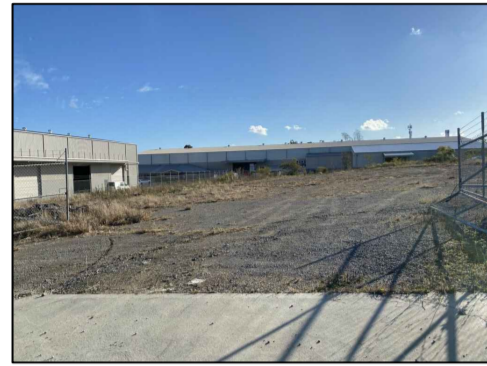




Photograph 1



Photograph 2



Photograph 3



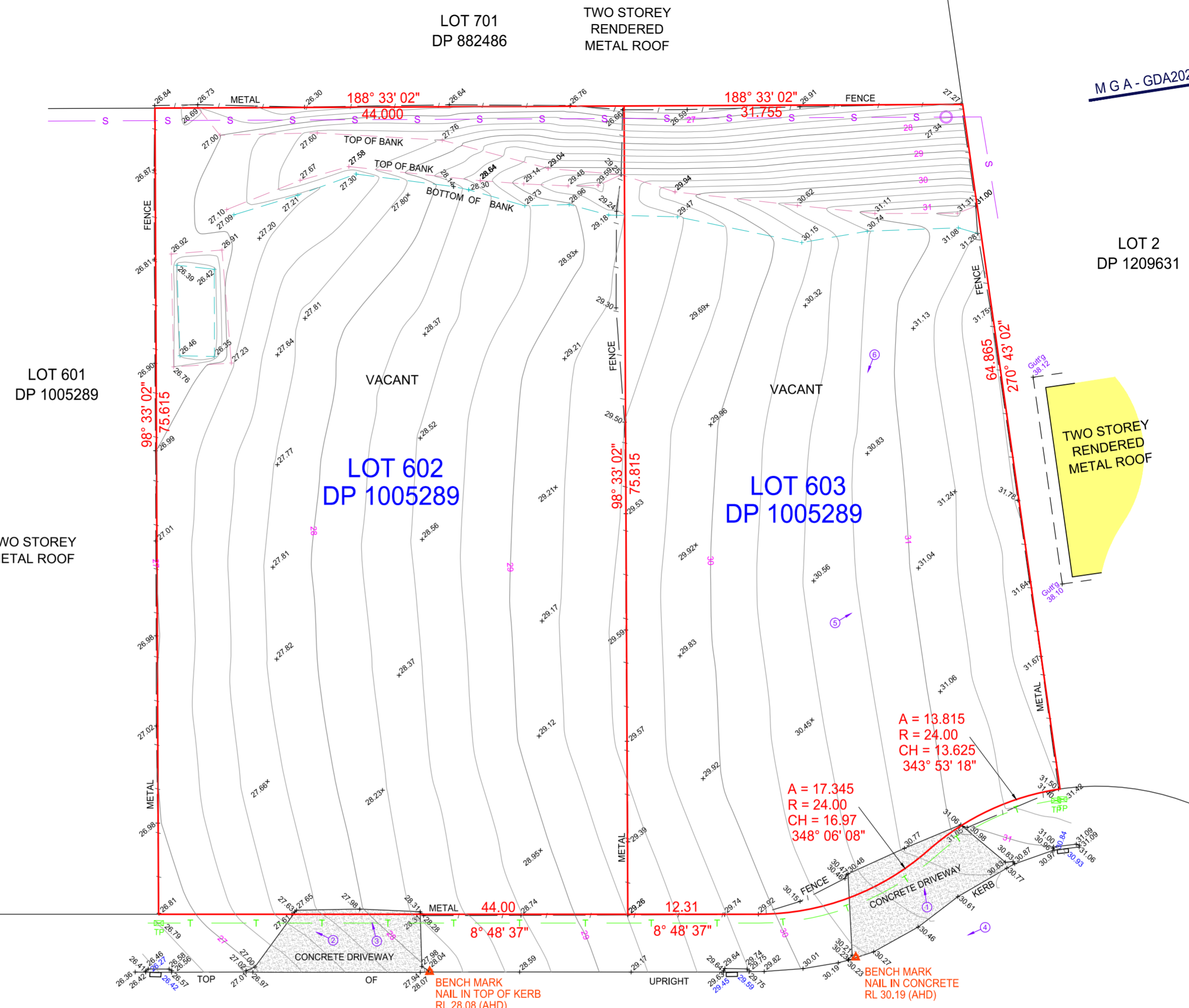
Photograph 4



Photograph 5



Photograph 6



MGA - GDA2020

### LEGEND

- 30 CONTOUR
- FENCING
- SEWER MANHOLE
- PHOTO LOCATION & DIRECTION
- TELEPHONE SINGLE CONCRETE PIT
- POLE POWER

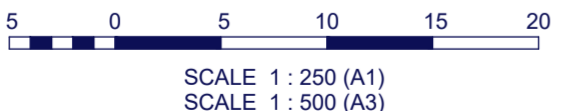
#### UNDERGROUND SERVICES

NOT LOCATED BY SURVEY - APPROXIMATE LOCATION ONLY  
SOURCE: DIAL BEFORE YOU DIG

- W APPROXIMATE WATER MAIN LOCATION
- T APPROXIMATE LOCATION OF UNDERGROUND NBN / TELSTRA CABLES
- S APPROXIMATE SEWER MAIN LOCATION
- E APPROXIMATE ELECTRICITY OVERHEAD POWER

**NOTES:**

- The cadastre shown on this plan has been located to a standard of accuracy in accordance with Regulation 10 of the Surveying and Spatial Information Regulation 2017. The boundaries have not been marked by this survey.
- Datum shown in the title block denotes the date of information sourced from SCIMS.
- This plan displays information suitable for detailed planning and design at the scales stated only. The plan may not be used for any other purpose or at any scales other than those stated.
- Spot levels and contours shown hereon are for design purposes only and may require confirmation prior to any excavation or construction. Contours have been derived from the spot levels shown and as such are indicative only.
- Only visible surface features have been surveyed and are shown to scale accuracy only.
- Services shown hereon have been located by field survey of visible features only, unless otherwise noted.
- Any underground services shown on this plan are indicative only and do not represent the number, size or depth of cables, pipes or conduits, unless otherwise noted.
- Prior to and during any demolition, excavation or construction the designer and/or contractor must obtain a current search from 'Dial Before You Dig'.
- These notes are an integral part of this plan. Reproduction of this plan, or any part of it, without these notes included in full will render the information invalid and not suitable for use.



KESTREL AVE

TITLE:	PLAN OF DETAIL AND LEVELS OVER LOT 602 & 603 IN DP1005289
LOCATION:	5-7 KESTREL AVENUE THORNTON
CLIENT:	EFFECTIVE LEGAL SOLUTIONS



• LAND & PROPERTY SURVEYS • PROJECT MANAGEMENT • LAND DEVELOPMENT • 3D LASER SCANNING

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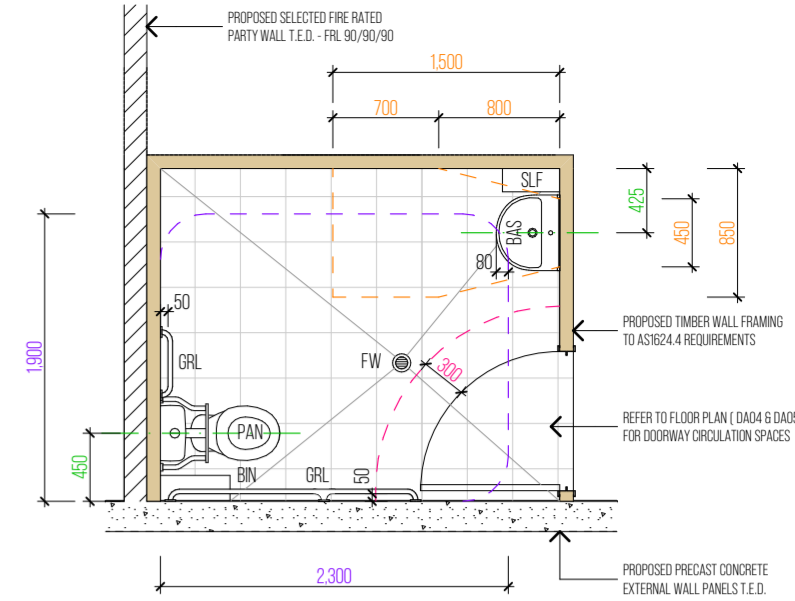
Revision	Amendment	Date	SCALE A1 - 1:250 A3 - 1:500	ORIGINAL SIZE A1	HORIZ DATUM MGA SSM 93893 E 371413.379 N 6371622.589	SOURCE SCIMS 06.07.21	JOB / REF NO. 22007
A	INITIAL ISSUE	15.07.21	DO NOT SCALE		VERT DATUM AHD SSM 93893 RL 19.219	SOURCE SCIMS 06.07.21	SHEET NO. 1 OF 1
B			SURVEYOR: JL DRAWN: KV		CONTOUR INTERVAL: 0.25m		DATE: 15.07.2021
C			SHANNON WILSON REGISTERED SURVEYOR		CAD REF: 22007_DET_A.dwg		REVISION: A







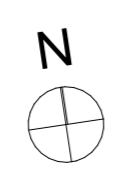
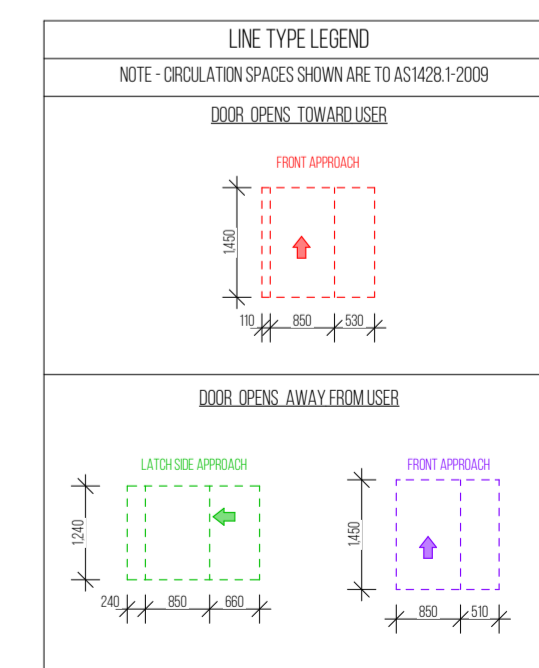
**1 FLOOR PLAN 1:200**



**2 ACCESSIBLE WC PLAN - TYPICAL 1:50**

LINE TYPE LEGEND	
ALL SPACES SHOWN ARE IN ACCORDANCE WITH AS1428.1-2009	
	HINGED DOOR CIRCULATION SPACE
	WASHBASIN CIRCULATION SPACE
	MINIMUM AREA FOR WC PAN CIRCULATION

LEGEND	
BIN	- SANITARY WASTE BIN IN ACCORDANCE WITH AS1428.1-2009 REQUIREMENTS
BOL 1	- SELECTED BOLLARD TO CAR PARKING SHARED SPACE TO MEET REQUIREMENTS OF AS2890.6 AND AS1428.1
BOL 2	- SELECTED BOLLARD TO PREVENT VEHICLE BLOCKAGE OF DOORWAY CIRCULATION SPACE AND TO MAINTAIN EMERGENCY EGRESS
CT	- SELECTED CERAMIC TILE FINISH
D.P.	- SELECTED 150mm Ø DOWNPIPE
[EXIT]	- ILLUMINATED EMERGENCY EXIT SIGN TO BCA REQUIREMENTS
FFL	- FINISHED FLOOR LEVEL
FIN	- SELECTED FIXED LOUVER FIXED TO STEEL STRUCTURAL SUPPLY T.E.D.
FW	- FLOOR WASTE
GPD	- GRATED PIT DRAIN T.E.D.
GRL	- 40mm Ø STAINLESS STEEL GRABRAIL TO AS1428.1-2009 REQUIREMENTS
JNRY	- SELECTED JOINTERY
KRB	- SELECTED 150mm HIGH CONCRETE KERB
PAN	- ACCESSIBLE WC PAN TO AS1428.1-2009 REQUIREMENTS
RD	- LINE OF SELECTED STEEL ROLLER DOOR ABOVE
RTW	- RETAINING WALL T.E.D.
STR	- SELECTED STAIR AND HANDRAIL TO MEET REQUIREMENTS OF AS1428.1-2009
SEW	- EXISTING SEWER LINE
T.E.D.	- TO ENGINEER'S DETAIL
TYP.	- TYPICAL



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CLIENT  
LEVANT INVESTMENTS PTY. LTD.  
LOT 602 & 603 KESTRAL AVE. THORNTON, NSW

PROJECT  
PROPOSED INDUSTRIAL COMPLEX

DRAWING TITLE  
FLOOR PLAN - LOT 602

DRAWING STATUS  
DEVELOPMENT APPLICATION - ISSUE A

JOB NUMBER	DRAWN BY	SCALE
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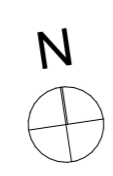




PROPOSED UNITS  
10 - 13  
SELECTED STEEL SHEET  
ROOFING  
ROOF AREA - 656.32 m<sup>2</sup>

PROPOSED  
CARPARK BELOW

PROPOSED UNITS  
14 - 19  
SELECTED STEEL SHEET  
ROOFING  
ROOF AREA - 1,267.69 m<sup>2</sup>



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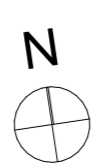
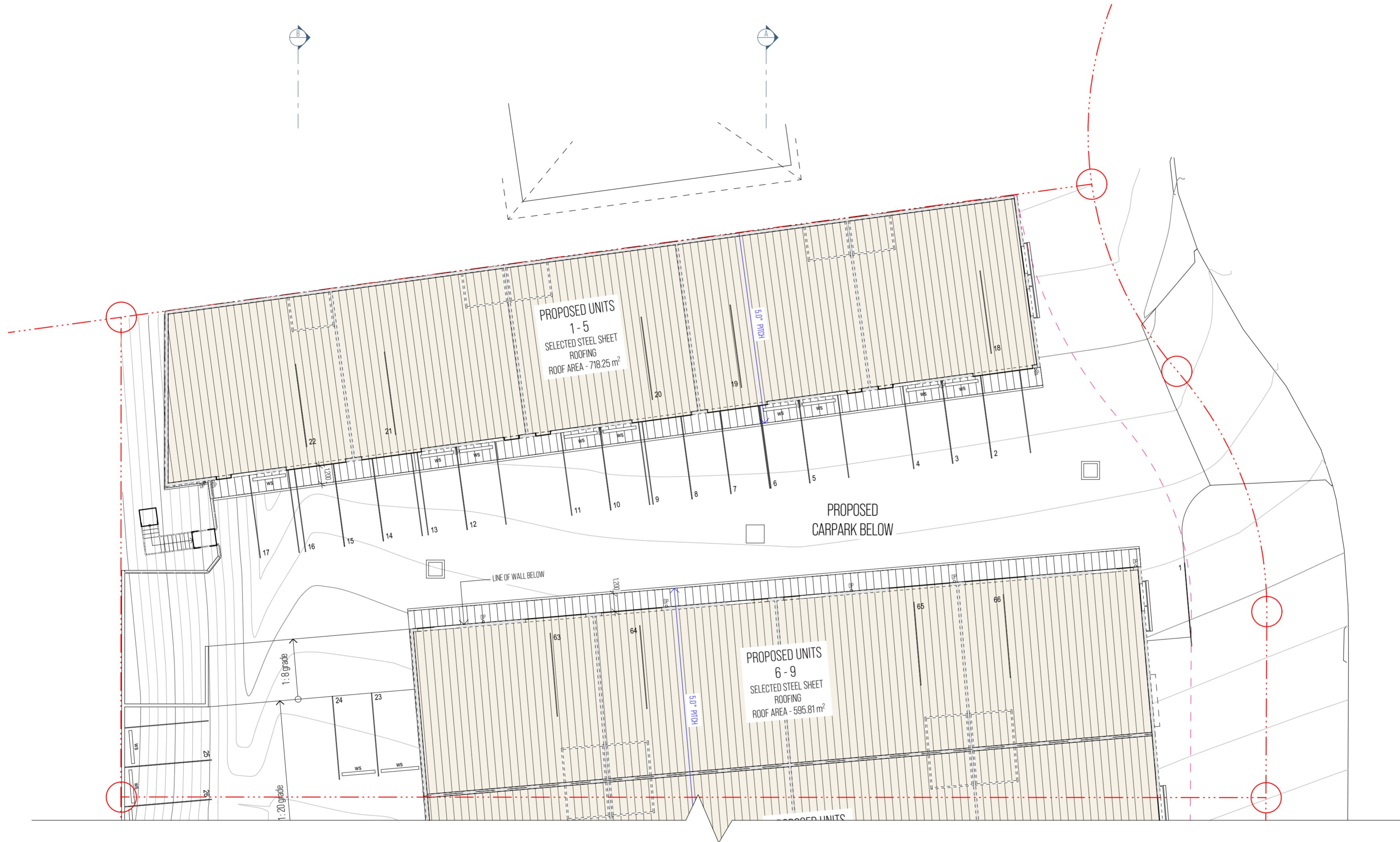
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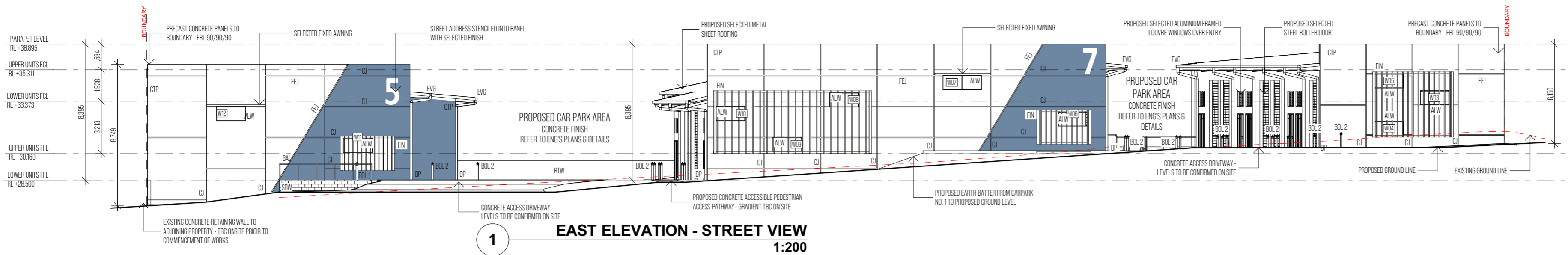
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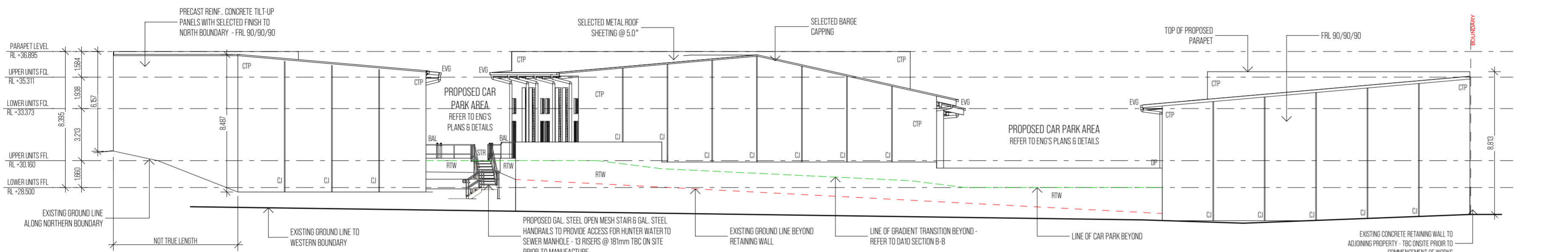
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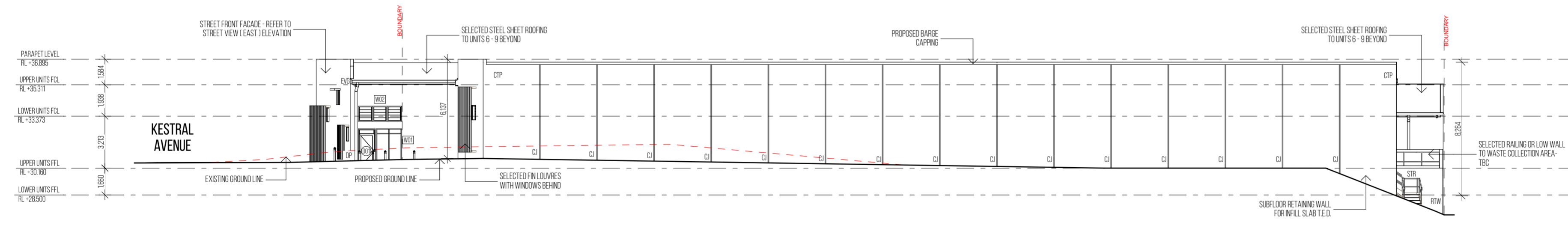
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- BOL 2 - SELECTED BOLLARD TO PREVENT VEHICLE BLOCKAGE OF DOORWAY CIRCULATION SPACE AND TO MAINTAIN EMERGENCY EGRESS
- CJ - CONTROL JOINT
- CTP - PRECAST CONCRETE TILT-UP PANEL T.E.D.
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- ENG'S - ENGINEERS
- EVG - SELECTED COLORBOND BUTTER TO AS/NZS279.1 6 AS/NZS3500.3
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- KRB - SELECTED 150mm HIGH CONCRETE KERB
- MRS - SELECTED CORRUGATED METAL SHEET ROOFING
- RD - SELECTED STEEL ROLLER
- REINF. - REINFORCED
- RTW - RETAINING WALL T.E.D.
- SBW - SELECTED SPLIT-FACED CONCRETE BLOCKWORK
- STR - SELECTED EXTERNAL GAL. STEEL STAIR AND GAL. STEEL HANDRAIL TO PROVIDE ACCESS TO SEWER MANHOLE - 13 RISERS @ 181mm EACH. TBC PRIOR TO MANUFACTURE
- T.E.D. - TO ENGINEER'S DETAIL
- TYP. - TYPICAL



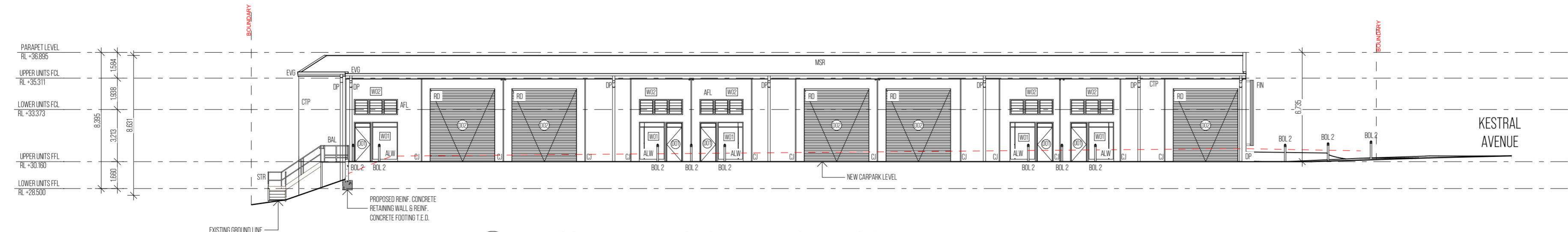
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2 WEST BOUNDARY ELEVATION  
1:200



3 NORTH BOUNDARY ELEVATION  
1:200



4 SOUTH ELEVATION ( INTERNAL ) - UNITS 1-5  
1:200



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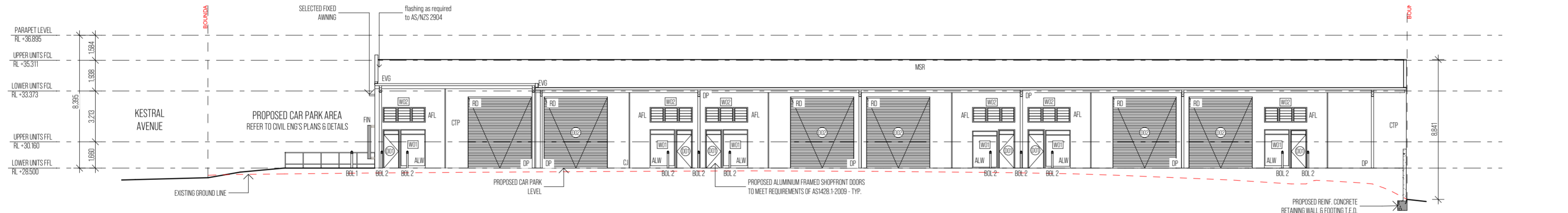
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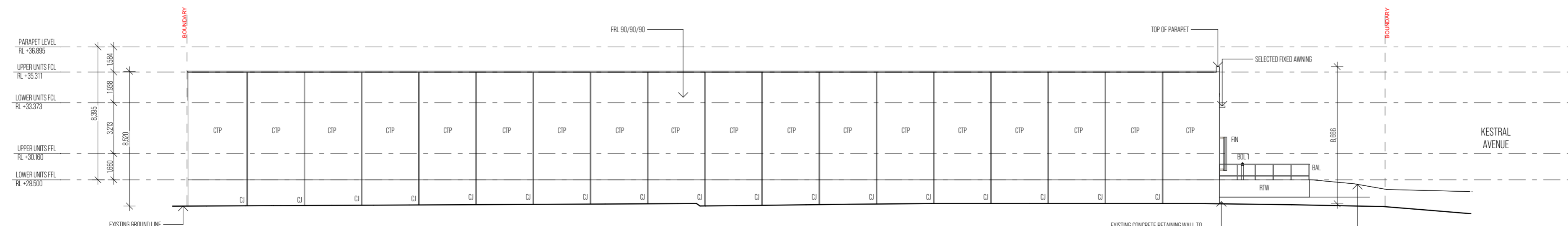
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**4 SOUTH BOUNDARY ELEVATION**  
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- LEGEND**
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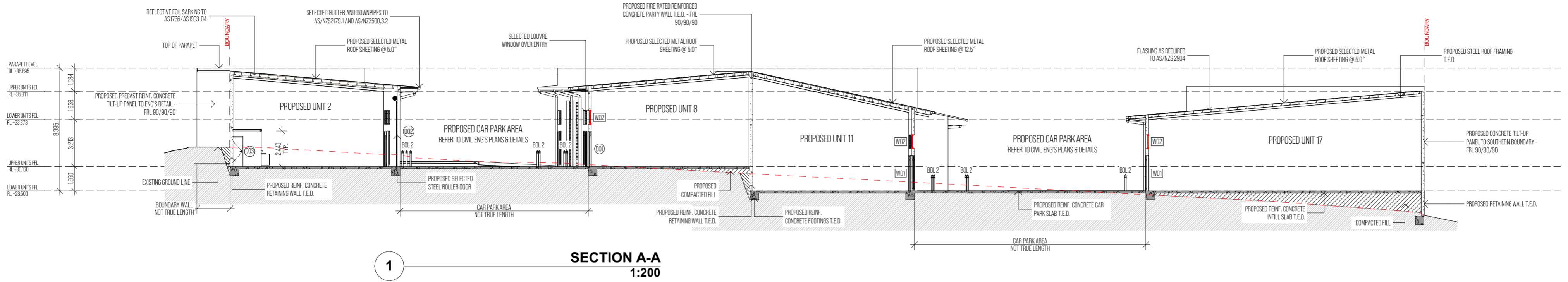
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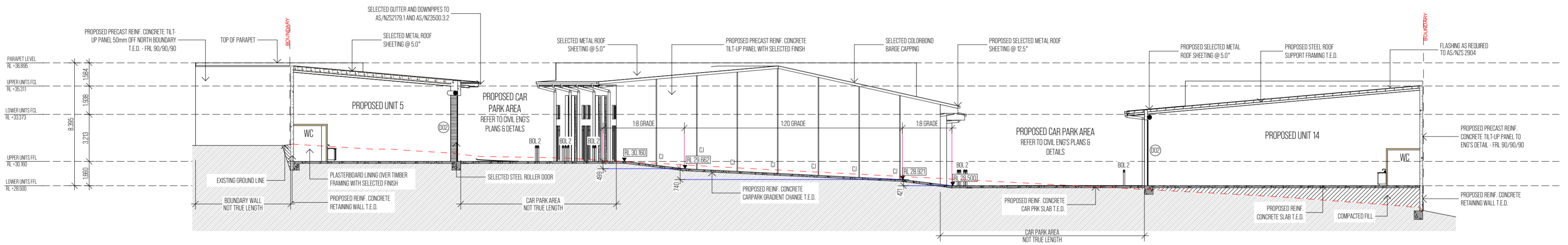
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1 SECTION A-A  
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2 SECTION B-B  
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## **Appendix 2**

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Updated

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| F.10 | Louth Park                      |            |
| F.11 | Farley                          |            |

RED denotes amendments.

## Amendment History

<b>Version No.</b>	<b>Nature of Amendment</b>	<b>Date in Force</b>
1	Initial Adoption by Council	16 December 2011
2	Adoption of Anambah Road Release Area	17 October 2012
3	Adoption of Riparian Land and Waterways	29 January 2013
4	Adoption of Lochinvar Urban Release Area	10 September 2014
5	Adoption of Louth Park Urban Release Area	31 October 2014
6	Adoption of Farley Urban Release Area	11 March 2015
7	Notification provisions	08 April 2015
8	Adoption of Waterford County North Precinct	
9	Adoption of Glebe Paddock	07/05/2015
10	Adoption of Centres and CPTED provisions	24/08/2015
11	Adoption of Hunter River Floodplain Management	10/12/2015
12	Adoption of Lochinvar Urban Release Area	07/04/2016
13	Adoption of Tree Management	21/07/2016
14	Adoption of Thornton North – Chisholm Neighbourhood Centre	09/03/2017
15	Amendment of E.3 - Morpeth HCA	08/06/17
16	Amendment of B.5 - Tree Management	30/01/2018
17	Amendment of F7 – Thornton North (Waterford County North Precinct Plan)	11/09/2018

2011

Maitland Development Control Plan



Part A

Administration

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# Part A – Administration

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## A.1 - Introduction

The Maitland Local Environmental Plan 2011 (LEP) has been prepared in the Standard Instrument format. Consequential amendments were required to the Maitland Citywide DCP to reflect the new language and provisions in the LEP. The opportunity was also taken to further consolidate the document, resulting in the preparation of the Maitland DCP 2011.

The Maitland DCP 2011 has been designed to allow for amendments over time, within a logical framework of Parts and Chapters.

### 1.1 Purpose

The purpose of this DCP is to provide detailed provisions for development within the Maitland LGA. These provisions supplement the legal framework contained in the Maitland LEP 2011.

### 1.2 Aims

The aims of this DCP are:

- a) To provide a detailed planning document that outlines requirements for development which meets community expectations and addresses the key environmental planning issues of the Local Government Area;
- b) To identify certain development as advertised development and to detail public notification requirements in accordance with Section 74C of the EPA Act;

### 1.3 Legal Status

This Plan is titled **Maitland Development Control Plan 2011 (MDCP 2011)**.

This document is a Development Control Plan prepared in accordance with the provisions of the Environmental Planning and Assessment Act, 1979, and associated Regulations.

This DCP came into force on 16 December 2011. The amendment table at the beginning of this document lists any amendments since this time.

A DCP does not have the same legal force as an environmental planning instrument (such as the Maitland LEP 2011 or various State Environmental Planning Policies). In the event of any inconsistency between this DCP and an environmental planning instrument, the Environmental Planning and Assessment Act 1979 states that the environmental planning instrument shall prevail.

A consent authority is required to consider this DCP when determining Development Applications within the Maitland LGA. However, compliance with the provisions of this DCP does not necessarily imply that a consent authority will consent to the application. A consent authority is required to consider the full range of matters listed under Section 79C of the Environmental Planning and Assessment Act 1979 in its assessment of a development application.

This DCP does not apply to any development considered to be either “exempt” or “complying” development under an environmental planning instrument. These categories of development are currently regulated by various State Environmental Planning Policies.

#### 1.4 Land to which this DCP applies

The Maitland DCP 2011 applies to all land within the Maitland LGA to which the Maitland LEP 2011 applies.

#### 1.5 Relationship to previous Development Control Plans

This DCP **repeals** the following chapters in the Maitland Citywide DCP:

- Aberglasslyn/North Rutherford
- Avalon Forest Rural-Residential Estate
- Bolwarra/Largs
- Chisholm Road, Greenhills
- Commercial and Retail Policy
- Conservation of Clay Resources
- Former Rutherford Abattoir Site and Adjoining Land
- Greenhills Low Density Residential
- Items of Environmental Heritage
- Metford
- Oakhampton Heights
- Raworth
- Stormwater
- Telecommunications and Radio Communications
- Thornton Business Park – Thornton East
- Thornton County (Somerset Park)
- Thornton Rural Residential Area

This DCP **repeals, condenses and replaces** the following chapters in the Maitland Citywide DCP 2006:



<u>Description</u>	<u>Relevant chapter in this DCP</u>
Aberglasslyn Area Plan	F: Aberglasslyn Urban Release Area
Accessible Living	C: Accessible Living
Advertisement/Notification of DAs	A.4: Community Participation
Ashtonfield Sth Residential Precinct	D: Ashtonfield South
Bolwarra Heights Rural Small Holdings	D: Bolwarra Heights
Car Parking Requirements	C: Vehicular Access and Parking
Central Maitland	E: Central Maitland
Child Care	C: Child Care Centres
Exhibition Homes and Villages	C: Exhibition Homes & Villages
Gillieston Heights Area Plan	F: Gillieston Heights Urban Release Area
Glenwood Residential and Industrial Estate	D: Thornton (Woodlands Estate)
Hunter River Floodplain Management	B: Hunter River Floodplain Management
Industrial Development	C: Industrial Development
Largs Urban Release Area Plan	F: Largs Urban Release Area
Louth Park – Waterforde Estate	D: Louth Park (Waterforde Estate)
Maitland Conservation & Design Guidelines (Part 1)	C: Heritage Design and Conservation Guidelines (Appendix 1)
Maitland Conservation & Design Guidelines (Part 2)	E: Heritage Conservation Areas
Maitland Conservation & Design Guidelines (Part 3)	C: Heritage Design and Conservation Guidelines
Maitland Conservation & Design Guidelines (Part 4)	C: Heritage Design and Conservation Guidelines
On-Site Sewage Management Systems	B: On-Site Sewage Management Systems
Orient Street Greta – Small Rural Lots	D: Greta (Orient Street)
Outdoor Advertising	C: Outdoor Advertising
Outdoor Dining	C: Outdoor Dining
Regulation of Brothels & Other Sex Industry Establishments	C: Sex Services Premises and Restricted Premises
Residential Design	C: Residential Design
St Helena Village Lochinvar	D: Lochinvar (St Helena Village)
Subdivisions	C: Subdivisions
Tenambit	D: Tenambit
Thornton North Area Plan	F: Thornton North Urban Release Area
Waste Not	B: Waste Not
West Bolwarra Heights	D: West Bolwarra Heights
West Rutherford Area Plan	D: West Rutherford

## 1.6 How to Use this DCP

The DCP is divided into six (6) parts:

- Part A: **Administration** details the statutory requirements of the DCP under the *Environmental Planning and Assessment Act 1979*, explains the aims of this DCP, the structure of the document and the public notification and advertising process.
- Part B: **Environmental Guidelines** contains chapters of the DCP that are not design-specific, but relate to consideration of environmental matters that may be relevant when preparing a Development Application, such as flooding and vegetation management. These chapters assist in pre-planning a development outcome.
- Part C: **Design Guidelines** contains chapters of the DCP that provide design-specific guidelines, such as car parking requirements and residential design.
- Part D: **Locality Plans** collates a number of chapters in the DCP that guide development outcomes for specific localities based on an analysis of both natural and man-made constraints.
- Part E: **Special Precincts** contains chapters of the DCP that provide comprehensive design concepts for areas that contain a mixture of land uses and development outcomes such as Central Maitland, or areas that have specific requirements such as Heritage Conservation Areas.
- Part F: **Urban Release Areas** contains chapters of the DCP that are identified as Urban Release Areas in the Maitland LEP 2011.

## 1.7 Departures from this DCP

Council may consent to an application that departs from the provisions of this DCP. In this case, the request for a departure shall be in writing (either as part of the Statement of Environmental Effects or a separate submission) justifying the need for the departure. Such justification may necessitate the need for additional plans, photomontages and the like, or additional studies and reports such as traffic or car parking studies.

Any departure from this DCP will only be considered where it can be demonstrated to the satisfaction of the consent authority that the departure has merit.

## 1.8 Savings and transitional provisions

This DCP does not apply to the following applications, where they were lodged with the consent authority but undetermined at the time this DCP came into force:

- A Development Application,

- An application to modify a Development Consent under s96 of the EPA Act, or
- An application for a review of a determination under Section 82A of the EPA Act.

In this circumstance, the application will be assessed in accordance with the DCP that was in force at the time of lodgement of the application.

This clause does not apply to any site-specific DCP that is prepared concurrently with a Development Application.

## **1.9 Disclaimer**

The contents of this DCP are subject to periodic review and change. Applicants must ensure that they have obtained the latest version.

The DCP is not necessarily an exhaustive list of requirements for particular proposals. Pre-application discussion with Council staff is essential to ensure all relevant matters are considered.

Council will accept no responsibility for reader interpretation of this DCP. Applicants should consult with Council staff to ensure the relevant parts of the DCP have been addressed and are understood.

## A.2 – Preparing an Application

### 2.1 Before you begin

Pre-application discussion with relevant Council staff **prior to preparation of detailed plans** is highly recommended to ensure that the development proposal is permissible under the LEP, to ensure that all relevant matters are addressed in the application, and that adequate supporting documentation is submitted.

For larger or more complex proposals, it is recommended that applicants meet with Council's **Development Control Unit**. The Unit is a team of senior Council staff responsible for the assessment of development, subdivision and construction certificate proposals. It provides advice aimed at avoiding delays during application processing and maintaining effective communication. Attendance at the Panel does not infer an approval from Council.

### 2.2 Preparing an Application

A Development Application must be accompanied by a Statement of Environmental Effects and other relevant documentation as prescribed under the EPA Regulation 2000 (Schedule 1). Council's Application Form Guides can assist in this regard by identifying the types of information required.

The supporting documentation required with an application will vary with the nature of the proposal, its size and complexity, the other agencies from which comment or approval is required and the particular environmental characteristics of the land to be developed. Additional detail regarding issues to be addressed, and the resulting documentation requirements, can be found throughout this DCP.

#### 2.2.1 Section 79C of the EPA Act

This section of the Act specifies matters that a consent authority needs to consider in the assessment of development applications. These heads of consideration also provide an applicant with a checklist to ensure that all aspects of a development have been addressed in the preparation of an application.

Section 79C of the Act includes:

- a) Environmental planning instruments – this section requires consideration of whether the application is consistent with environmental planning instruments (State Environmental Planning Policies and Local Environmental Plans);
- b) Any DCP that applies to the land;
- c) matters prescribed by the Regulation associated with the Act – these include such matters as fire safety considerations;

- d) environmental, historical, social and economic impacts;
- e) whether the site is suitable for the development;
- f) any submissions made in relation to the development; and
- g) public interest matters.

Consideration of matters specified in the EPA Act may require the applicant to prepare site-specific specialist reports or studies and/or broader studies where the proposed development will have greater impacts on the wider community.

### **2.2.2 Integrated Development**

In addition to any consent issued under the EPA Act, some proposals will also require approvals (or licences) from other statutory authorities or agencies before commencing work or undertaking the activity.

Section 91 of the EPA Act lists the approvals that trigger the 'integrated development' provisions in the Act. The onus is on the applicant to identify whether their proposal is integrated development and 'tick the box' on the DA form and pay the associated referral and administration fee to the relevant authority.

It is the responsibility of the applicant/owner to obtain the relevant approval necessary, either through Council at DA stage or alternatively post approval and prior to the commencement of any works on site. This alternative process may require amendments to be sought to the development consent granted.

Council staff can provide advice about other approvals required. Additional information may be necessary for referral to other authorities, such as a bushfire threat assessment report.

### **2.2.3 Bushfire Prone Land**

Any Development Application over land that is classified as 'bush fire prone land' on Council's Bush Fire Prone Map is required to comply with the NSW Rural Fire Service's publication titled "*Planning for Bushfire Protection*" (2006). Where the development is 'integrated development', the application will be referred to the NSW RFS for comment.

### **2.2.4 Clearing native vegetation**

The *Native Vegetation Act 2003* (NVA) and Regulation came into force in 2005. This Act regulates the clearing of native vegetation on all land across NSW except for land excluded in that Act (including certain urban zones). This Act is administered by the Hunter-Central Rivers Catchment Management Authority (CMA) as the consent authority.

Where clearing of native vegetation (as defined under the NVA) is proposed, development consent may be required from the CMA before any clearing works can be undertaken. Early consultation with the CMA is recommended in this regard.

### **2.2.5 Consent authority**

In most cases, Council is the relevant consent authority for applications within the LGA. *State Environmental Planning Policy (Major Developments) 2005* establishes the Minister for Planning (or by delegation the Department of Planning) as the consent authority for development categorised as Major Projects/State Significant Development.

Other subordinate panels have also been established under the EPA Act, including the Planning Assessment Commission (PAC) and Joint Regional Planning Panels (JRPPs). These panels exercise consent functions either under delegation from the Minister or for development of regional significance. Details of projects that are determined by JRPPs can be found in the Major Developments SEPP. Council officers can assist in this regard.

## A.3 – Lodging an Application

### 3.1 Application Form and documentation

All Development Applications must be lodged with the Development Application Form, the Statement of Environmental Effects and appropriate accompanying documentation. Applicants should refer to Council's Application Guide for details. **Applications will not be accepted without the required documentation.**

The length of time taken for assessment and determination of applications will vary depending upon the extent to which the proposal complies with the provisions of this DCP, and on the adequacy of the supporting documentation submitted. Variations to development standards contained in the LEP or requests for departures from the provisions of this DCP may require a decision of Council for final approval. This will generally delay determination of an application considerably.

### 3.2 Fees and Charges

All Development Applications attract fees and charges for the administration and assessment of the proposal, including public notification and advertising if required. Council's Corporate Management Plan contains all the relevant information and is updated annually. Applicants should ensure they have consulted the current document.

#### 3.2.1 *Integrated Development*

Where an application is identified as "integrated development", an additional fee as prescribed by the EPA Act and Regulation is required. The fee is applicable to each separate approval or licence process identified as 'integrated', as the application is referred to each relevant Authority on behalf of the applicant with the prescribed fee.

#### 3.2.2 *Subdivision*

In addition to Development Application fees, other fees and charges which may be applicable for subdivision include, but are not limited to:

- Subdivision Certificate (Endorsement) fees;
- Principal Certifying Authority fees;
- Hunter Water Corporation Fees;
- Construction Certificate fees; and
- House numbering/Rural house numbering fees.

### **3.2.3 Developer Contributions**

Sections 94 and 94A of the EP&A Act permits Council to levy certain developer contributions towards the cost of facilities and amenities in the LGA.

Details relating to the amount of a monetary contribution, other forms it may take and when the contribution is required are contained in the relevant Section 94 Contributions Plan (CP).

Additional infrastructure levies may be required where land is identified as an Urban Release Area in the Maitland LEP 2011. Part 6 in the LEP applies in this regard.



## A.4 – Notification

### 4.1 Preamble

Formal notification of development applications is a requirement of the legislation. There are different requirements for different development types. This section identifies which development types require notification and the form that notification shall take. It also defines if and how modifications to development approvals are notified.

Designated, state significant, integrated and advertised development types have specific notification and consultation requirements that are detailed in the [Environmental Planning and Assessment Act 1979](#).

Designated Development – Schedule 3 of the Environmental Planning and Assessment Regulation 2000 identifies certain development as “designated development” and also describes thresholds over which other forms of development become “designated development”. These are developments that are likely to significantly impact on the environment. The EP&A Act and its Regulation prescribes the procedures for the public exhibition and notification of designated developments.

Integrated Development – The EP&A Act and its Regulation also provide specific requirements for the advertisement of integrated development. Integrated development is development that, as well as requiring development consent, also requires one (or more) nominated State agency permits or licences as listed in Section 91 of the EP&A Act.

Advertised Development – Where a development is classified as advertised development, but does not comprise designated development, the EP&A Act provides that it must be advertised in the same manner as is designated development.

### 4.2 Development Requirements

#### 4.2.1 Objectives

1. Development applications are notified locally.
2. Reasonable time is given for the public to assess applications and prepare submissions.
3. The application and supporting material is easily accessible.
4. Adequate information is provided to the adjoining landowners so that they can understand what is proposed and how they can participate.
5. The adjoining owner for the purpose of notification is clearly defined.
6. Parties that are likely to be affected by larger or more intrusive

- impacts are notified of the development.
7. Other Advertised Development: Development for the purpose of Clause 79A of the Environmental Planning and Assessment Act 1979 is specified.
  8. Notified Development: Development for the purpose of Clause 79A of the Environmental Planning and Assessment Act 1979 is specified.
  9. Development applications that are amended before they are determined are advertised where changes are considered significant and notification is in the public interest.
  10. Development applications that are modified after the application was determined are advertised where changes are considered significant and notification is in the public interest.
  11. Development applications modified under Sections 96(2) or 96(AA) of the Environmental Planning and Assessment Act are advertised as required.
  12. Council will notify and/or advertise an application under Section 96(2) or 96(AA) in accordance with the requirements of the original application.

#### **4.2.2 Development controls**

1. Where a development application is to be advertised, advertising will occur as follows:
  - A notice is published at least once in the Maitland Council news section of the local newspaper.
  - Written notice of the proposal, including a notification plan, is to be provided to all adjoining landowners.
  - The application and supporting material is available for inspection at the Administration Building for a minimum period of 14 days from the date of the published notice.
2. A written notice and a published notice of the development application must contain the following information:
  - A description of the land (including the address) on which the development is proposed to be carried out.
  - The name of the applicant and the name of the consent authority.
  - A description of the proposed development.
  - A statement that the application and the documents accompanying that application may be inspected at Council's Administration Building for a period specified in the notice during the consent authority's ordinary office hours.
  - A statement that any person during the period specified may make a written submission in relation to the development application to the consent authority.
  - The dates of the period specified.

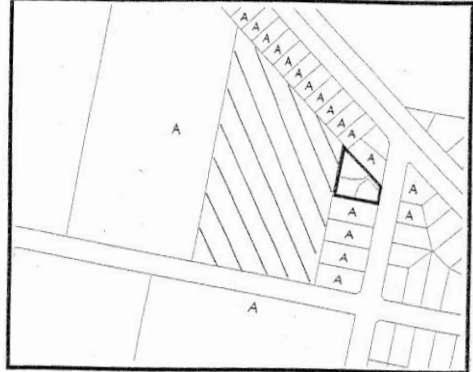
3. An adjoining landowner/s is the registered person/s or company/s or representative/s who own land which:
  - Shares a common boundary with the land subject to the application; or
  - Is directly opposite the subject land and is only separated by a pathway, laneway or public road; or
  - Is only separated from the subject land by land held in the same ownership as that being developed.
4. If the adjoining land is strata or community title, the body corporate is notified.
5. Where the development is likely to result in impacts over a larger area, Council may, at its discretion expand the notification area.
6. Any of the following development requires advertising:
  - All development and/or demolition proposed affecting a heritage item identified under Maitland Local Environmental Plan 2011 (except private swimming pools).
  - Major works, including any proposal for second-storey additions in a Heritage Conservation Area.
  - Major council projects (excluding utility services with a value exceeding \$100,000 or likely to be of significant community interest).
  - Multi-dwelling housing, group homes, boarding houses, hostel, residential flat buildings, seniors housing or similar type of developments.
  - Non-residential uses in or adjacent to a residential zone.
  - Subdivision of land zoned R5 Large Lot Residential or E4 Environmental Living.
  - Subdivision of residential land into more than 2 allotments.
  - Development for the purpose of hotel or motel accommodation, pubs, hospitals, places of worship and sex services premises in any zone.
7. Where council is of the opinion that the proposed development is minor in nature and its location, size, height, bulk and proposed use will not adversely affect the amenity of the adjoining land, advertising of the development may not be required.
8. Any development application that involves alteration to the external configuration of a building or the erection of a new building requires notification except the following:
  - New residential dwelling houses, additions and alterations up to and including two-storeys with a maximum height of 8.5 metres measured from the existing ground level.
  - Dual occupancies up to and including two-storeys with a maximum height of 8.5 metres measured from existing ground

- level, provided they meet the privacy, setbacks and overshadowing provisions of the Residential Design chapter of this DCP.
- Open carport, pergola, verandah or similar development.
  - Enclosure of an existing patio or verandah within the existing roofed area.
  - Private swimming pool.
  - Detached garage or shed enclosed by walls and associated with a dwelling.
  - Any building on a property in a rural zone which has an area of 2 hectares or more.
  - Industrial development in an industrial zone.
  - Subdivision of R1 General Residential land resulting in not more than two (2) lots.
  - Commercial development in a commercial zone.
  - Development in a Heritage Conservation Area including:
    - a. Internal and external alterations.
    - b. Single storey car ports.
    - c. Single storey garages.
    - d. Single storey additions.
    - e. Minor demolition of ancillary, non-contributory elements
  - A change of use in commercial areas.
9. Despite the exceptions above, Council may notify the development if it considers that notification is in the public interest.
10. Development applications that are amended before they are determined are advertised where changes are considered significant and notification is in the public interest.
11. If a development application is amended prior to determination; and
- Council has notified/advertised the original application, and
  - Council is of the opinion that the amended application differs only in minor respects from the original application, and
  - The application does not result in a greater environmental impact; Council may decide to dispense with further notification/advertising in relation to the application.
12. Where Council considers that amended plans or additional information submitted prior to determination is likely to have a greater or different, detrimental effect on adjoining properties, Council will re-notify those persons originally notified and those who made a formal written submission.
13. Modifications to approvals under Section 96(1) of the EP&A Act do not require notification.
14. Modification to approvals under Section 96(1A) of the EP&A Act will only be notified where Council is of the opinion that the use or enjoyment of adjoining land may be detrimentally affected by the proposed modification.
15. Where modification applications under Section 96(2) or 96(AA) are for designated development or other advertised development,

notification requirements will be as required under the Environmental Planning and Assessment Regulation 2000.



- The development site is edged heavy black
- Adjoining land is marked with an "A"



- The development site is edged heavy black.
- Land in the same ownership as the development site is hatched.
- Adjoining land is marked with an "A".

Figure 1: An example of adjoining properties for the purpose of this section.

## A.5 – Post Determination Matters

### 5.1 Subdivision

If the development consent requires the carrying out of any works associated with the subdivision of land, a Construction Certificate is required prior to any work being undertaken. Detailed Engineering Plans will usually be required for approval. Council is the sole Principal Certifying Authority (PCA) able to oversee the subdivision construction process. You cannot appoint an accredited certifier to be your PCA.

A Subdivision Certificate is required prior to release of the final plan of survey, so that the plan of subdivision can be registered under the Conveyancing Act 1919. All required work must be completed and consent conditions satisfied prior to issue of a Subdivision Certificate, or else security must be lodged with Council (usually in the form of a Bond and Agreement) to cover the cost of the outstanding works plus contingencies.

A Subdivision Certificate can be issued over part of a subdivision, provided that all requirements for that part have been met. Details of requirements for Construction Certificates, Engineering Plans and Subdivision Certificates are contained in Council's Manual of Engineering Standards (MOES).

#### 5.1.1 Bonding of Works

In some instances, Council may require the applicant to provide a monetary bond to ensure that works relating to a development consent are completed. A monetary bond may be required to be lodged prior to the issue of a Construction Certificate.

### 5.2 Modification of Consents

Sections 96 and 96A of the Environmental Planning and Assessment Act 1979 set out the procedure for modification of development consents. An application for modification must be made to the consent authority, and fees paid, in accordance with the Environmental Planning and Assessment Regulation 2000.

Minor errors, mis-descriptions or miscalculations may be modified without further referral or notification. However, more significant modifications may require re-advertising and referrals to government authorities.

In all cases, the consent authority must be satisfied that the development to which the consent as modified relates is substantially the same development. For significant modifications, lodgement of a new development application will be required.

### 5.3 Lapsing of Consents

Section 95 of the *Environmental Planning and Assessment Act 1979* describes when a development consent lapses.

### 5.4 Review of Applications and Rights of Appeal

Should an applicant be dissatisfied with the determination of a development application where Council is the consent authority, a Review of Determination may be requested under Section 82A of the *Environmental Planning and Assessment Act, 1979*. The request must be made within 28 days of determination of the application, accompanied by the prescribed fee.

Rights of appeal also exist to the Land and Environment Court of NSW. These rights are set out in Sections 97, 98 and 99 of the *Environmental Planning and Assessment Act, 1979*.

## A.6 – Dictionary

“**Adjoining land**” comprises –

- a) Land identified in Map 1 as being land which shares a common boundary with the development site, or is separated only by a pathway, driveway, laneway or public road or,
- b) Land identified in Map 2 as being the closest land that is not owned by the registered proprietor of the development site.

NB – Council will need to apply discretion in relation to sub-clause (b). For example, development within the State Rail Authority corridor would not require all those properties which also about the corridor to be notified.

“**Notification plan**” means an A3 or A4 size plan submitted by the applicant specifically for notification purposes which incorporates the following components –

- a) A site plan indicating:-
  - (I) The dimensions of each boundary of the allotment;
  - (II) The distance between each part of the building and the allotment boundary; and,
  - (III) The effect of the proposed building on any existing building, trees, landscaping and fences.
- b) An elevation of each side of the proposed building indicating:-
  - (I) The gradient of the land adjacent to the elevation and the existing ground surface;
  - (II) The overall height of the wall measured from the existing ground level;
  - (III) The height of the proposed roof measured for the top of the wall to the ridgelines or highest point;
  - (IV) The size, position and shape of any openings, windows and doors, whether such windows or doors are openable and the type of glass used; and
  - (V) The position, size and shape of any verandahs, landings and decking.

“**Written notice**” in relation to advising of a proposed development shall contain the following information –

- a) A description and address of the site;
- b) The proposed use of the building and a description of the building;
- c) The name of the applicant;
- d) The time period within which written submissions may be made; and
- e) A notification plan.



2011

Maitland Development Control Plan



Part B

Environmental  
Guidelines

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# Part B – Environmental Guidelines

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## B.1 – Introduction

This Part of the DCP contains specific environmental guidelines for matters that are relevant to the Maitland Local Government Area. Some of the Chapters contained in this Part will assist the general public in the pre-planning or site analysis work that is required before the design phase of a development, such as the chapter on Vegetation Management. Other Chapters will assist in the design process, requiring an environmental outcome in the planning phase of an overall project, such as On-site Sewage Management Systems.

NOTE: This chapter must be read in conjunction with the remaining chapters of this DCP.

## B.2 – Domestic Stormwater

### 1. Introduction

- 1.1 On-site stormwater management encompasses the control of rain water/ stormwater and for the purpose of this plan, within the property boundaries of residential land (2a), rural residential land (1d) and Rural (1a), Secondary Rural (1b) and Rural Small Holdings (1c) as applicable where stormwater is generated from roofs of buildings and hardstand areas such as driveways, patios, compacted gravel areas and the like.
- 1.2 This plan applies to all new development on land (as described in clause 1.1) that is located within the Maitland City Council region.

### 2. History & Rationale

- 2.1 Domestic on-site stormwater management has been relatively uncontrolled in earlier residential development, where downpipes traditionally discharged into rainwater tanks or directly onto the ground. This practice eventually became unacceptable given the undesirable impacts of concentrated volumes of stormwater entering neighbouring properties or affecting the structural integrity of the building's foundation and footings. Stormwater discharge has later been controlled by directing flows via vitrified clay pipes and later, 90mm PVC pipes to street gutters where possible, and into appropriately sized rubble drains where fall to the street cannot be achieved.

Early 'upright style' street kerbing configuration generally permitted the provision of 90mm stormwater lines to be cut into the kerbing wall, however later style 'layback' street kerbing has made an acceptable standard of finish at the kerb difficult to achieve due to little or no concrete cover once a 90mm storm water line is cut into the kerb.

- 2.2 Enforcement of domestic stormwater discharge is, and has been, the role of local government. With the introduction of B.A.S.I.X (Building Sustainability Index) in July 2005, (NSW), domestic stormwater management has become the focus of greater attention in order to reduce (mains supply) domestic potable water consumption, therein the retention and storage of stormwater discharge has become more regulated.

### 3. Objectives

- 3.1 The objectives of this plan are to;
  - (a) Ensure that compliance with BASIX objectives and requirements are achieved.

- (b) Ensure that an acceptable standard of water quality is maintained within storm water lines and rain water storage tanks.
- (c) Ensure the most suitable rainwater storage method is employed pursuant to the relevant site conditions, including health and safety aspects of the storage installation.
- (d) Ensure the method of laying storm water lines is in accordance with the relevant Australian Standard, (AS/NZS 3500.3:2003).
- (e) Ensure that storm water discharge points at kerbs and inter-allotment drainage pits are of an acceptable standard and location.

## 4. Performance criteria

4.1 The objectives of this plan may be achieved by compliance with the following criteria:

- (a) **Retention capacity.** For each new dwelling development, the storm water retention capacity is to be in accordance with the BASIX requirements in regard to the designated roof area to be employed for catchment. This means the required roof area catchment shall be adequately served by sufficient downpipes directing flows to the tank and equally sufficient discharge via overflow lines.
- (b) **Location of feed lines.** All feed storm water lines shall be of 100mm sewer grade PVC laid wherever possible in the same trench as the sewer lines, (refer fig.4).PVC pipes and components shall be handled and joined in accordance with AS/NZS 2032:2006.

The location of the storm water line in the trench shall be above and offset from the sewer line, (refer fig 4). Where storm water lines are laid in specific trenches, the trenches shall be located away from the foundation/s of the building/s Storm water lines shall have a minimum of 300mm ground cover.

The trench shall be backfilled around the storm water line with the equivalent aggregate used to encase the sewer line. Storm water lines shall be covered with identification taping

The configuration of the charged stormwater line shall be such that the initial flow into the line is directed to the lowest flush point, (refer figs 1 & 3)

Charged stormwater lines shall be laid so that a flush point is provided at finished ground level at the lowest point of the charged line. This flush point is required in addition to any first flush provided in the lines directed to the tank. The purpose of the flush point is to enable simple access to the charged line by

the property owner to facilitate periodic draining of the charged line so as to avoid accumulative contamination of the charged line/s. Ideally the flush point should be located where discharge can disperse onto grassed area, gardens or rubble pit. The flush point is to be provided with permanent signage to indicate the purpose of the flush point (refer fig 1).

- (c) **Rain water tanks.** On-site rainwater tanks shall be constructed of an approved material. Preference should orientate toward lighter colours for the exterior of the tank where the tank is located above ground. All exposed PVC stormwater lines shall be painted with a U.V resistant paint. The tank shall be located so as not to compromise fire separation of buildings or access to the exterior of buildings.

**Sub surface detention systems are not acceptable as a method of rainwater storage for the purpose of non-potable domestic use. This means on site storm water *detention* systems are not to be used for the purpose of BASIX compliance unless the installation of the underground detention is specifically designed as on-site detention and subsequently approved by Council.**

Above ground tank installation should be the preferred method of rainwater storage and shall be provided with an adequate reinforced concrete slab for support or a base in accordance with the tank manufacturer's recommendation.

Piering below the slab will depend upon site conditions, and may be required.

The tank manufacturer's recommendations are to be followed where a substrate material is required between the underside of the tank and the concrete slab.

Bases for supporting tanks shall provide adequate provision to disperse water away from the building and avoid accumulated moisture build up around the tank area.

**Underground tank installation is not acceptable where sufficient fall from the tank overflow to the street or inter-allotment drainage (IAD) infrastructure is not achievable.**

The minimum gradient (fall) from the tank overflow to the discharge point shall be 1:100 measured at the invert at the (underground) tank overflow and the invert of the discharge point. The overflow from (above ground) tanks shall achieve the same fall of 1:100.

Where overflow lines serve underground tanks, backflow prevention devices are to be provided within the overflow line to deny the re- entry of flood water and vermin. (Refer fig 7).

- (d) **Configuration of stormwater lines.** Stormwater lines shall be laid in a configuration that directs the initial flow to the lowest discharge point. All lines shall be laid with fall to the lowest (flush) point.

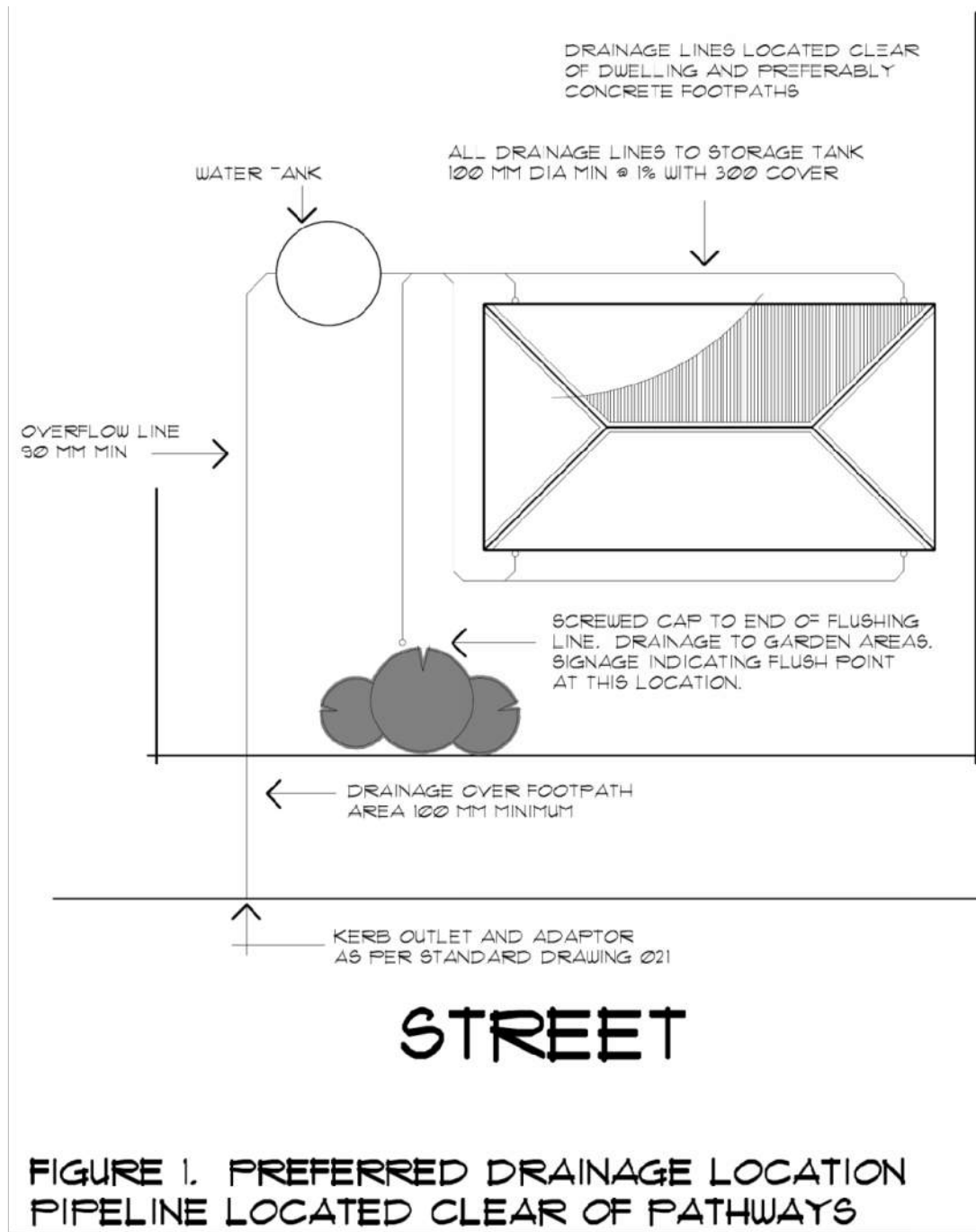
Stormwater lines laid that are not level or with fall to the flush point will not be acceptable (refer fig 5).

The overflow line should be of sufficient capacity to permit discharge without overflow from the tank itself occurring.

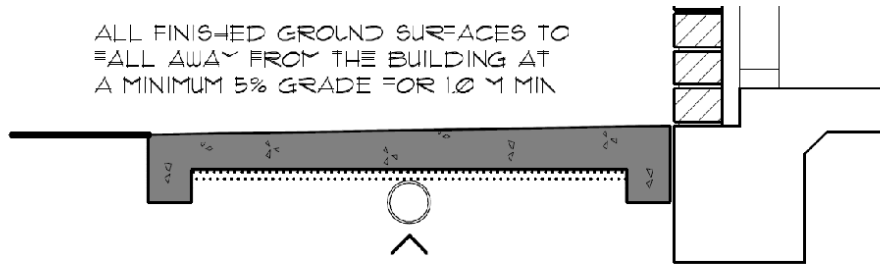
Stormwater management plans shall be prepared by the applicant to be lodged with the Development Application. The stormwater management plan shall consist of the following:

- (i) RL's of the kerb, tank location and flush point.
  - (ii) A site plan depicting the proposed location of the stormwater lines, the location of the flush point and the proposed location of the rainwater tank. The rainwater tank will be clearly marked as in-ground, above ground, or erected on a tank stand. The tank location should also indicate the proposed location of the weather-proof GPO (general power outlet) and pump.
- (e) **Stormwater lines over Council's nature strip.** Stormwater lines laid across the Council nature strip shall be 100mm sewer grade PVC and achieve 300mm cover where possible. Where the line approaches the kerb, a 15 deg fitting shall be provided to enable the line to maintain the required coverage and angle up towards the kerb outlet fitting. The kerb outlet fitting shall be a pre-cast alloy or aluminium fitting with the rear (footpath side) of the fitting adequately concreted around the connection. (Refer fig 6). The kerb fitting should be either cut as low into the kerb as possible to provide maximum concrete cover, or neatly flush with the top of the kerb with no concrete cover.
- (f) **Stormwater generated from hardstand areas.** Stormwater that is generated from overland flow and hardstand areas such as driveways, shall be directed to the tank overflow line to discharge to the street, rubble drain or IAD pit as applicable. This stormwater drainage is acceptable in 90mm PVC but must not inter-connect with any line directed to the rainwater storage. This means that any overland flows intercepted by grates, spoon drains and the like must discharge directly through overflow lines and not be permitted to enter the tank storage. It is recommended that this line be independent of all stormwater lines interconnected to the tank feed/discharge.
- (g) **Mosquitoes.** Adequate provision shall be made to ensure all stored rainwater in charged lines and the tank/s is protected from mosquito infestation and subsequent breeding.

## 5. Figures

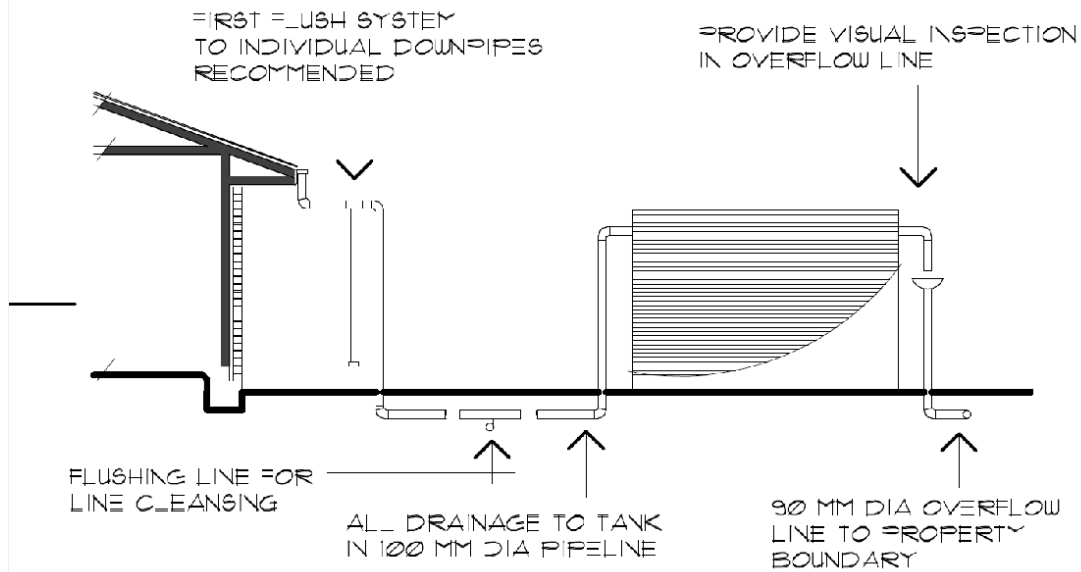




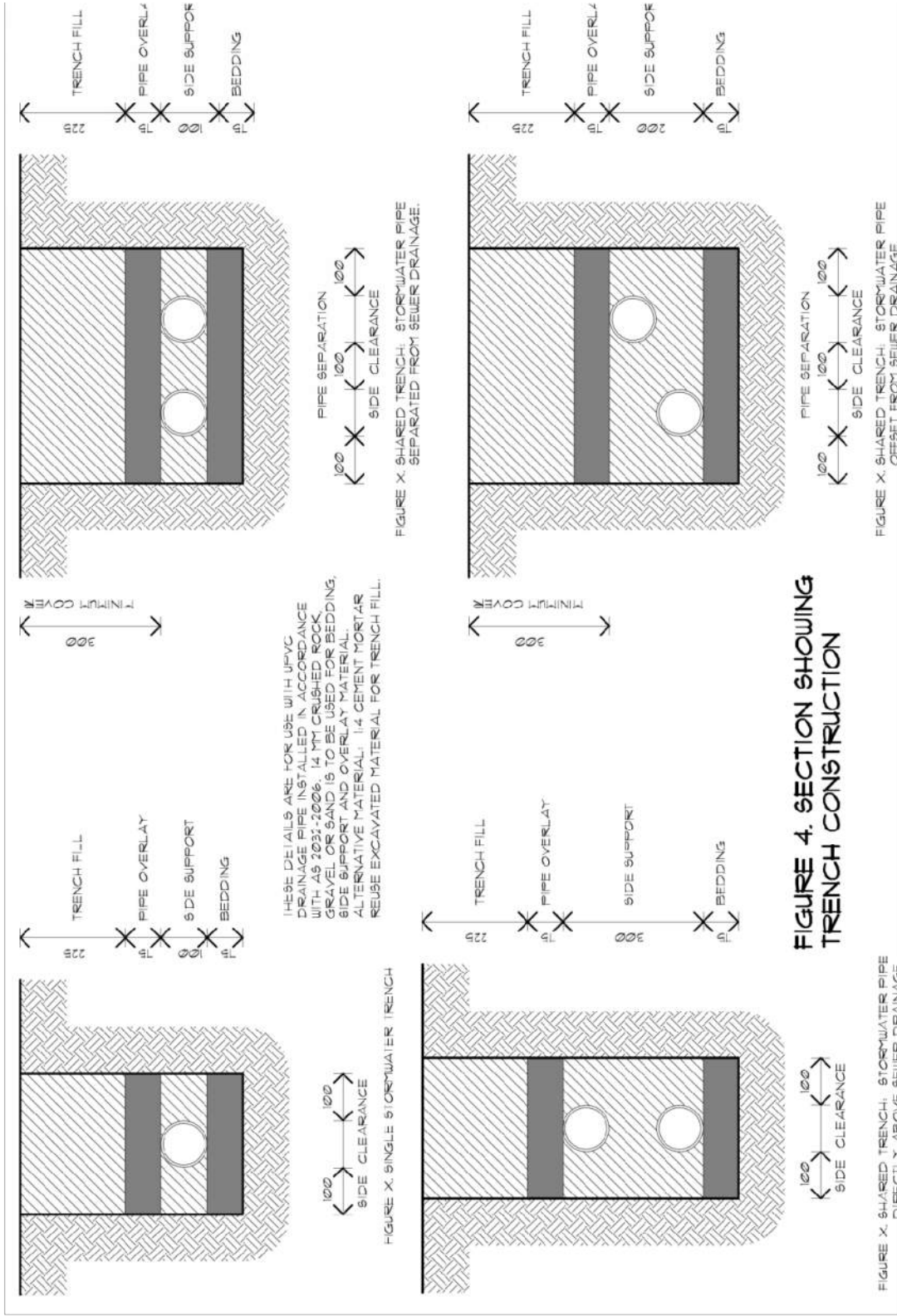


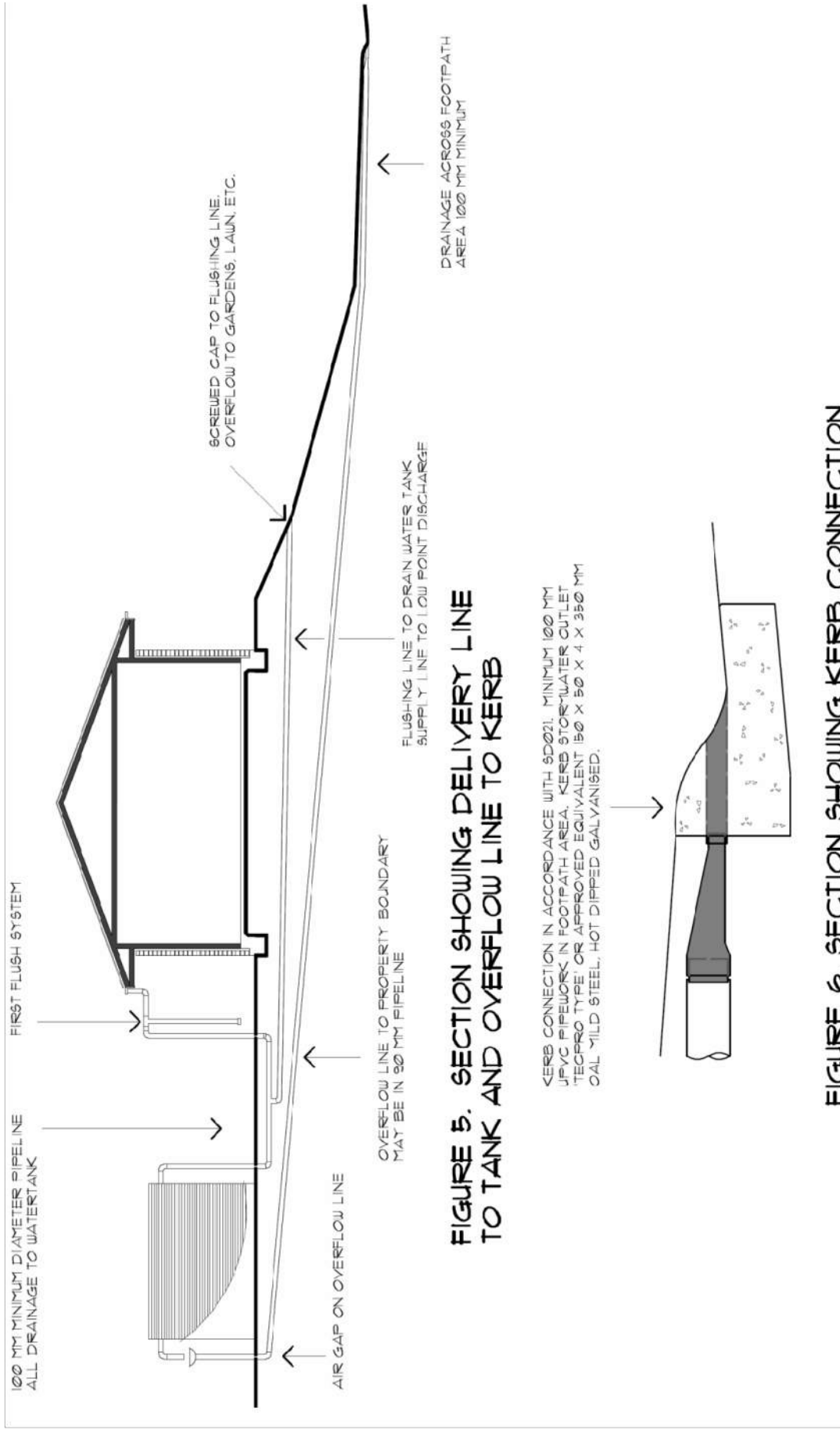
WHERE DRAINAGE LAIN BELOW PERIMETER FOOTPATH ENSURE 25 MM SAND LAYER BETWEEN TOP OF PIPE AND UNDERSIDE OF SLAB. AT EDGES ENSURE 100 MM OF SLAB EXTENDS 50 MM MIN INTO NATURAL GROUND.

**FIGURE 2. SECTION SHOWING LOCATION OF DRAINAGE BELOW CONCRETE PATH**



**FIGURE 3. DRAINAGE SECTION DOWNPIPE TO WATER TANK OVERFLOW**





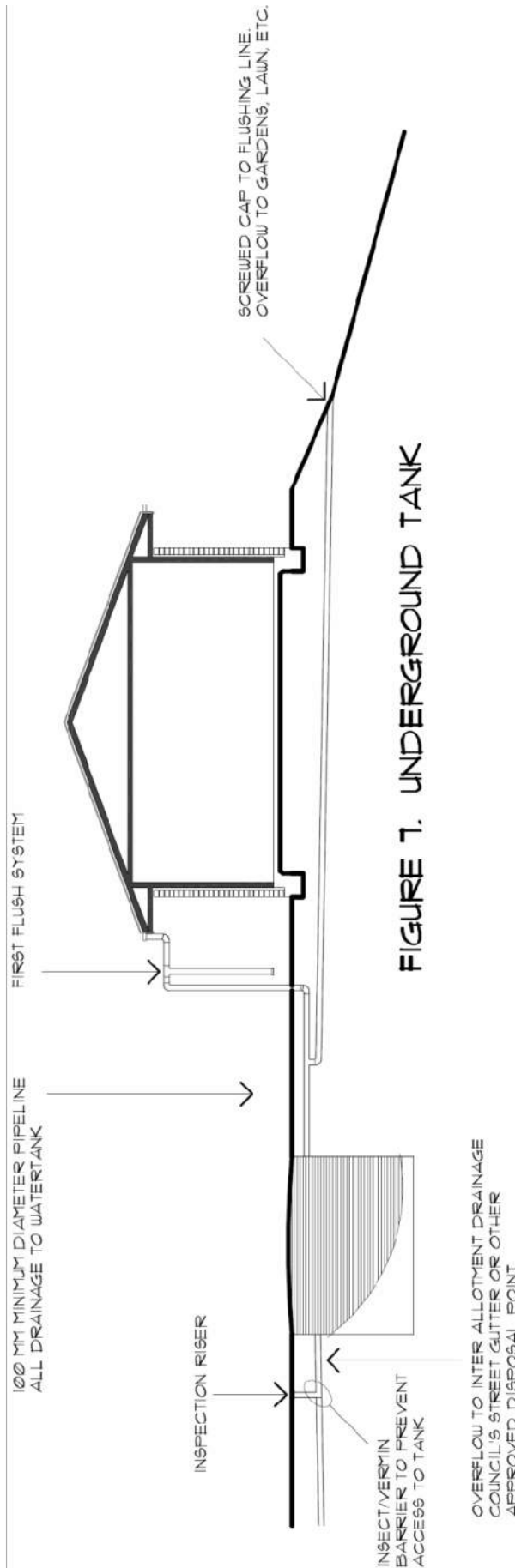


FIGURE 7. UNDERGROUND TANK

**NOTE.**

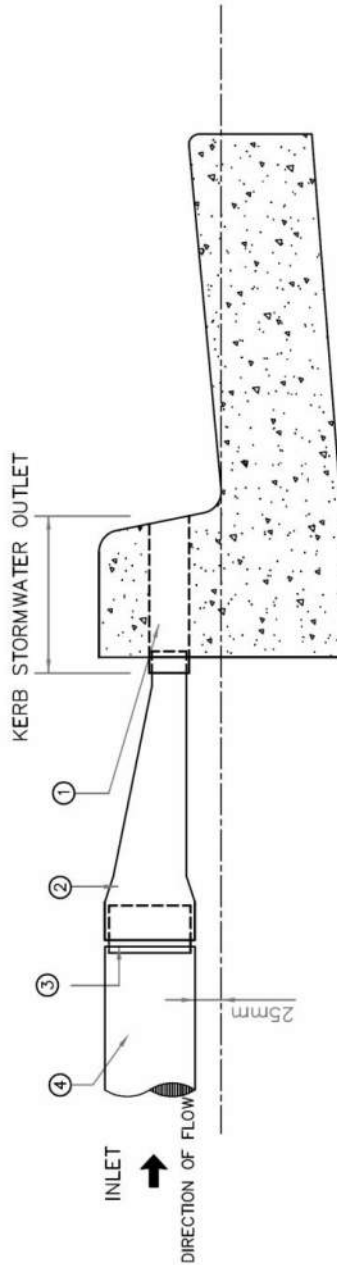
1. KERB STORMWATER OUTLET 'TECPRO TYPE' OR APPROVED EQUIVALENT 150x50x4x350mm OAL MILD STEEL, HOT DIPPED GALVANISED.
2. KERB ADAPTOR 'TECPRO TYPE' OR APPROVED EQUIVALENT SPECIALLY FORMED UPVC PROFILE IS DESIGNED TO FIT INTO KERB STORMWATER OUTLET AND MATCH UP WITH 100mm PVC PIPE x 355mm OAL.
3. REDUCER, IF REQUIRED, PVC 100x90x50mm OAL TO SUIT 90mm PVC STORMWATER PIPE.
4. SEWER GRADE 100mm DIA. PVC PIPE (OR GAL. STEEL RHS 150x50 WHERE THERE IS POTENTIAL FOR DAMAGE OR WHERE COVER IS MINIMAL).

**TYPICAL INSTALLATION DETAILS:**

1. PRIOR TO INSTALLING KERB ADAPTOR CAREFULLY CHECK BACK OF KERB STORMWATER OUTLET FOR ANY OBSTRUCTIONS.
2. CLEAN AND/OR FILE AS APPROPRIATE.
3. PLACING A BLOCK OF WOOD ACROSS INLET END GENTLY TAP KERB ADAPTOR INTO POSITION.

**SPECIAL NOTATION:**

1. TYPICAL ARRANGEMENT ONLY, SHOWING KERB STORMWATER OUTLET POSITIONING AND KERB ADAPTOR ATTACHMENT.
2. SEAL ALL CONNECTIONS WITH A SILICON BASED SEALANT.



CROSS SECTION

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**Standard Drawing 021**  
**Kerb Stormwater Outlet & Kerb Adaptor**  
**- Upright Kerb & Gutter**

DATE August 04	SHEET 2 OF 2 SHEETS PLAN No.
SCALE N.T.S at A4 Sheet	<b>SD021</b> AMENDMENTS:

## 6. References

AS 2870-1996 Residential Slabs & Footings-Construction

AS/NZS 2032-2006 Installation of PVC Pipe Systems

AS/NZS 3500.3.2003 Plumbing & Drainage Part 3, Storm water drainage

HB 230-2006 Rainwater tank Design & Installation Handbook

## B.3 – Hunter River Floodplain

### 1. Introduction

The Hunter River floodplain is a significant resource within the Maitland LGA. However, there are risks associated with the use of the floodplain or physical works and structures in the floodplain. The *Maitland Local Environmental Plan 2011* and this DCP chapter identify controls for managing the development of flood prone land. In the event of any inconsistency between this DCP Chapter and the LEP, the LEP will prevail to the extent of the inconsistency.

The Maitland LEP 2011 defines land which may be subject to flood-related development controls. The purpose of this section of the DCP is to provide guidance on how to:

- achieve the objectives of the LEP;
- facilitate development permissible under the LEP; and
- provide guidance for assessing the LEP criteria for development consent, taking into account Council's responsibilities for floodplain management and flood-related development standards as specified in other relevant legislation including the *Local Government Act 1993* and the *Water Management Act 2000*.

Under the *Local Government Act 1993*, the management of flood prone land is primarily the responsibility of local governments. Local governments are required to implement the provisions of the NSW Government's Flood Prone Land Policy and associated NSW Floodplain Development Manual 2005.

Clause 7.3 (2) in the Maitland LEP 2011 specifies the land to which this DCP chapter applies. The land is identified on the flood planning area maps included in the Maitland LEP 2011 and also any additional mapping that may be adopted by the Council for the purposes of defining the flood planning area.

This DCP chapter applies to the area of the Maitland Local Government Area (LGA) that is within the flood planning area identified in the LEP and for critical infrastructure and facilities within the Probable Maximum Flood (PMF) area.

This chapter does not apply to areas affected by flooding from local drainage.

### 2. Flood hazards, costs and risks to life

This section describes the factors which will be considered by Council in assessing whether a development complies with the objectives and requirements of the



LEP. These factors provide a general explanation of the flood-related issues that may be relevant for assessment of an individual development.

## 2.1 Risks to Property

Development in the floodplain has the potential to result in significant costs. Since flooding may only occur infrequently it may be tempting to overlook the consequences, resulting in a relatively high risk of flood damages. Key factors relating to property risks are as follows:

- the depth and velocity of floodwaters, which are directly related to the potential for structural damage;
- the potential damages to property across a range of flood events;
- the potential for the development to increase the flood affectation and likely damages for existing and future development on the floodplain, including consideration of cumulative development of an area; and
- the potential for other social, economic or environmental costs as a result of the development.

## 2.2 Risks to Life

Development of the area must ensure the safety of people that reside in or visit the area. Council's flood emergency response is guided by the State Emergency Services (SES) and the Maitland City Local Flood Plan. Critical issues relating to flood safety are as follows:

- the depth and velocity of floodwaters (for a range of flood magnitudes), as these factors are directly related to the safety of attempting to wade or drive through the flood affected area;
- the flood risk of the existing road and rail network, and the availability of access to flood-free ground within the area during floods;
- the existence of any flood mitigation levees, and the potential risk to life from overtopping or structural failure of the levees (with consideration of both probability and consequence);
- the extent to which the Bureau of Meteorology Flood Warning System can provide flood warning and the effective warning time, and the propensity of residents to respond to them;
- the coverage and effectiveness of the Maitland Local Flood Plan (a Sub Plan of the Maitland Local Disaster Plan administered by the SES);
- the flood awareness and readiness of the residents of the area; and
- the potential for harm (such as loss of life, stress and anxiety for example) resulting from flooding.



### 3. Development controls

The onus is on the proponent to provide an adequate level of information to support any development on land below the FPL. The Council will require a Statement of Environmental Effects (or an Environmental Impact Statement if the proposal is designated development) justifying the development in its location.

#### Objectives

1. The proposal is supported by adequate information to assess the impact of the proposal on flood behaviour, the environment, flood affectation and risk to life and property associated with the use of land.

#### Development controls

1. An application for development below the FPL must demonstrate:
  - the proposed development will not increase the flood hazard or flood damage or adversely increase flood affectation on other properties, as assessed by a suitably qualified hydraulic engineer;
  - the design of the proposed development is such that the risks of structural failure or damage in the event of flooding (including damage to other property) up to the FPL would be minimal, as assessed by a suitably qualified structural engineer;
  - the proposed development has been designed to withstand the effects of inundation of floodwaters up to the FPL, with contents or fittings susceptible to flood damage being located above this level;
  - if levees are proposed to protect a development, the impact of the levees on flood behaviour must be assessed and the habitable floor level of the proposed development behind the levee must still be set at or above the FPL (assuming no levee is in place);
  - the proposed measures to allow the timely, orderly and safe evacuation of people from the site (these measures should be permanent and maintenance free), and the measures proposed to safeguard goods, material, plant and equipment in a flood. These measures should be compatible with the Maitland City Local Flood Plan;
  - in rural areas, the proposals for the evacuation of any livestock in a flood;
  - the measures to reduce the risks that the development will allow the accumulation and build-up of debris being carried by floodwaters (particularly associated with fences in flood liable areas);
  - the design complies with the Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land; and
  - Details of any proposed filling to be provided.
2. Survey plans shall be dimensioned in metres with levels to Australian Height Datum (AHD), prepared and signed by a Registered Surveyor.

3. The type and extent of survey information likely to be required to support a development in a flood liable area is as follows:
  - the location of the site relative to other features such as roads, bridges, etc;
  - the assessed flood levels at the site (for the 1:100 ARI as a minimum and PMF where critical infrastructure is proposed), the origin of that level and how it was derived;
  - the position of existing buildings (if any) and proposed buildings and works on the site;
  - the existing and proposed floor levels of buildings on the site;
  - the existing ground levels around all existing buildings on the site, or if the site is vacant, ground levels on the site and on adjacent properties within approximately 30 metres of the boundary of the site;
  - the locations should be shown of any structure of the Hunter Flood Mitigation Scheme (such as levee banks, spillways, floodgates etc.), which are inside or within 100 metres of the subject property site; and
  - the position and floor and ground levels of buildings on adjacent properties, and the use of the properties within 100 metres of the subject site.

### **3.1 Development in Floodways**

#### Objectives

1. Significant adverse impacts on flood behaviour and the environment are avoided.
2. Development does not increase flood affectation elsewhere on the floodplain.
3. Minimise the flood risk to life and property associated with the use of land.
4. The integrity of the Hunter Valley Flood Mitigation Scheme is protected.

#### Development Controls

1. No building or structure is to be erected on land identified as floodway on maps Hydraulic Category Maps.
2. No fill is permitted on land identified as floodway on maps Hydraulic Category Maps.
3. Minor alterations to ground levels associated with surface treatments, below ground structures, or minor landscaping are permitted provided they do not alter the flow distribution or flood behaviour within the floodway.
4. New development shall be designed to avoid fences in floodways.
5. Where dividing fences across floodways are unavoidable, they are to be constructed only of open type fencing that does not restrict the flow of flood waters. The fencing design should be resistant to blockage or designed to be collapsible under heavy flood loadings.

6. Flood mitigation works<sup>1</sup> are permitted with consent subject to Council being satisfied that the works meet the objectives of this DCP and the Flood Risk Management Plan.
7. Development within the vicinity of Hunter Valley Flood Mitigation Scheme structures (including levees, floodgates, spillways and drains) operated by the NSW Office of Environment and Heritage are referred to that agency for concurrence in accordance with the *Water Management Act 2000*.

### 3.2 Filling of Flood Storage and Flood Fringe Areas

#### Objectives

1. Significant adverse impacts on flood behaviour and the environment are avoided.
2. Filling does not increase flood affectation elsewhere on the floodplain.
3. Minimise the flood risk to life and property associated with the use of land.
4. Development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change is permitted.

#### Development controls

1. An application for filling within the flood storage or flood fringe areas must be supported by a fully dynamic computer flood model unless:
  - There is no net importation of fill within the 1:100 ARI flood extent; or
  - Filling up to 7,000m<sup>3</sup> or 20% of the total 1:100 ARI flood storage/flood fringe volume of the lot (whichever fill volume is lower) that;
    - is associated with construction of a dwelling in rural zones, and
    - where construction of a dwelling is permitted; and
    - all of other flood requirements (such as evacuation) is achieved; and/or
  - Filling up to 3,500m<sup>3</sup> or 10% of the total 1:100 ARI flood storage/flood fringe volume of the lot (whichever fill volume is lower) associated with construction of a mound to provide refuge for stock during floods.

### 3.3 General Building Requirements

These provisions apply to all development below the flood planning level.

#### Objectives

1. Minimise the flood risk to life and property associated with the use of land.

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<sup>1</sup> Flood mitigation works are permitted without consent under the State Environmental Planning Policy (Infrastructure) 2007 if they are carried out by or on behalf of a public authority.

### Development Controls

1. All habitable finished floors shall be no lower than the FPL.
2. Parts of buildings and structures at or below the FPL shall be constructed in accordance with Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land. The development shall be certified by a qualified Structural Engineer that the building has been designed to withstand the depth of inundation, buoyancy and flow velocity forces (including potential for debris impact) at the development site for a 1:100 ARI event.
3. Flood-free access shall be provided from the development to an appropriate evacuation facility (as identified in the Maitland Local Flood Plan), at the 1:20 ARI flood level or higher.
4. Provision shall be made for the safe evacuation of people from the development in accordance with the Maitland Local Flood Plan.
5. Sufficient storage space for household effects shall be provided above the FPL.
6. Electrical fixtures such as light fittings and switches shall be sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.
7. These above requirements do not apply to the following development:
  - The extension of an existing dwelling house by no more than 50% of its internal floor area,
  - An addition to an existing dwelling house with an area of no more than 50% of the internal floor area of that dwelling to be used for the purpose of a dual occupancy.
  - Tourist and visitor accommodation.

## **3.4 Multi-Storey Residential Development**

### Objectives

1. Where new multi-storey residential buildings are proposed below the FPL they shall be designed to meet the following additional requirements.
2. The flood risk to life and property associated with the use of land is minimised.
3. Developments are resilient to flooding.

### Development Controls

1. Development for a multi-storey residential building shall be designed and constructed in accordance with the requirements of Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land.

## **3.5 Basement Car Parking**

### Objectives

1. Minimise the flood risk to life and property associated with the use of land.

#### Development controls

1. Basement garages will generally only be supported where all potential water entry points are at or above the 1:100 ARI.
2. Where this cannot be achieved the following requirements are to be met:
  - The basement should be designed so that the structural integrity of the building is not compromised if the basement is either partially or fully inundated during a flood<sup>2</sup>.
  - All exit points below the FPL must be able to be closed and locked to prevent access during floods.
  - A steel mesh gate should be used for the vehicle entry/exit points to allow the in-flow of floodwaters.
  - All services (electricity, water, fire, air conditioning etc.) must be designed to prevent damage up to the FPL.
  - At least one stair well from the basement should extend to at least the FPL. This exit should have a lockable entry but be able to be opened from the basement side (as with a fire door).
  - The owner(s) of the building should consult with the SES to determine the most appropriate mechanisms for evacuation/management of the basement car park where the projected flood level would result in its inundation.

### **3.6 Additions and Renovations**

Maintenance and minor repairs to existing dwellings do not require development approval. For all other additions and renovations works below the FPL, a development approval is required.

#### Objectives

1. Minimise the flood risk to life and property associated with the use of land.
2. Investment in works that provide future protection of the dwelling against flood is encouraged.

#### Development controls

1. All applications for renovations and additions are encouraged to comply with the General building requirements.
2. In deciding whether to support an application for additions and/or renovations of the existing floor area below the FPL, Council will consider whether the renovations, additions and alterations are likely to significantly add to the life span of the residential building and its exposure to future flood impacts.

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<sup>2</sup> A tanked (watertight) basement may not be appropriate due to buoyancy during flood inundation. It may be

necessary to allow the basement to fill with water during a flood.

3. Proposals for additions and renovations will be required to comply with the General building requirements in the following circumstances:
  - following a flood event where there has been inundation of the dwelling necessitating the removal and replacement of external and/or internal cladding material; or
  - following a flood event where there has been structural compromise to the dwelling which requires remediation; or
  - there is a proposal to increase the enclosed habitable floor space of the dwelling by more than 50%; or
  - there is a proposal to undertake major renovations to the dwelling (e.g. Re-piering, exterior re-cladding, internal re-lining); or
  - the proposed works have the potential to impact on flood behaviour.

### **3.7 House Raising and Flood Proofing**

House raising or flood proofing is generally supported by Council. Development approval is required for all but minor repairs and maintenance. In heritage conservation areas, development must consider the impact of the work on the qualities of the street and the heritage conservation area.

#### Objectives

1. House raising and flood proofing works do not adversely impact on the existing streetscape.

#### Development controls

1. The development will require assessment against the residential design provisions in this DCP.
2. In assessing an application for house raising or flood proofing, Council will consider the impacts of the works on the streetscape.
3. In heritage conservation areas the proposal must address the relevant provisions relating to heritage conservation.

### **3.8 Critical Infrastructure and Facilities**

Some types of development are not suited for development on the floodplain due to the significant consequences for broader community well-being in the event of a large flood even if the probability of flooding is rarer than a 1:100 ARI event. Such facilities should be placed on land above the PMF level.

#### Objectives

1. Key infrastructure is protected from floods greater than a 1:100 ARI flood event.

2. Effective emergency response is maintained during a greater than a 1:100 ARI flood event.

#### Development controls

The following developments are unlikely to be supported on land below the PMF:

- hospitals and ancillary services
- regional communication centres
- State Emergency Services stations
- sewage plants
- electricity plants or substations unless the plant is designed for controlled failure or shut-off when flooding occurs
- installations containing control equipment for critical infrastructure; and
- operational centres for flood emergency response.

### **3.9 Mitigating Circumstances**

#### Objectives

1. Merit-based assessment of a development is available only in extenuating circumstances.

#### Development controls

1. Council may consent to a development<sup>3</sup> where:
  - The land use is permitted in the zone; and
  - Full compliance with the flood-related development controls is impossible or unreasonable.
2. Any application will be subject to a comprehensive merits-based assessment against the objectives of the DCP and Clause 7.3 of the LEP.
3. Any application under this clause must be supported by detailed justification including any relevant studies.

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<sup>3</sup> Examples of circumstances where an alternative merits-based assessment may be considered include:

Rural Dwellings where:

- a. An owner is required to live on-site in order to manage an agricultural enterprise and
- b. The dwelling is located on the landholding on which the major operational part of the enterprise is located; and
- c. A dwelling is permitted on the land.

**Table 1: Flood Aware Design Requirements for Residential Development on Flood Prone Land.**

BUILDING ELEMENT	REQUIREMENT	NOTES
<b>Part of Building Below the FPL</b>		
<b>Ground Floor Levels</b>		
Ground floor levels to be established a minimum of 300mm above natural ground level	Mandatory	<ul style="list-style-type: none"> <li>Provides some protection against low level more frequent flooding.</li> <li>Enables creation of deep wall cavity below finished floor level for silt entrapment.</li> <li>Provides for improved design response in heritage conservation areas.</li> </ul>
<b>Ground Floor Construction</b>		
Concrete slab on ground	Preferred	<ul style="list-style-type: none"> <li>In areas of high silt deposition use a deeper slab rebate (minimum 2 bricks high) to hold more silt without it bridging the wall cavity.</li> </ul>
Infill concrete slab	Preferred	<ul style="list-style-type: none"> <li>This method allows for a higher ground floor level to provide increased protection against inundation from low level, more frequent flooding. A deeper slab rebate is still recommended.</li> </ul>
<b>Ground Floor Finishes</b>		
Float-finish Concrete	Preferred	<ul style="list-style-type: none"> <li>Allows for easier post-flood cleaning / hose-down.</li> </ul>
<b>Walls (external)</b>		
Cavity brick	Preferred	<ul style="list-style-type: none"> <li>Provide for ingress of water to balance hydrostatic forces inside and outside the walls via vents and flaps (which are compatible with energy conservation requirements).</li> <li>Include openings into cavity brick walls to facilitate removal of silt from the cavity.</li> </ul>
Solid concrete (tilt panel or formed in situ)	Acceptable	<ul style="list-style-type: none"> <li>Provide for ingress of water as above.</li> <li>External surface of solid concrete walls may require architectural detailing (eg. horizontal fillet lines) particularly if the building is being located within a heritage conservation area.</li> </ul>
<b>Walls (internal)</b>		
Cavity brick	Preferred	<ul style="list-style-type: none"> <li>These materials provide good structural performance when subject to inundation and facilitate easier post-flood clean-up.</li> </ul>
Single skin brick	Preferred	
Solid concrete (tilt panel or formed in situ)	Acceptable	



Building Element	Requirement	Notes
<b>Wall finishes</b>		
Exposed face brick	Preferred	<ul style="list-style-type: none"> <li>• Rendering/ painting of masonry walls is acceptable however painting of walls may lead to increased dry-out time and the need for repainting.</li> </ul>
Rendered/bagged finish – painted	Preferred	
<b>Stairs (internal)</b>		
Open stair treads in solid hardwood timber  Minimum stair width 1000mm	Mandatory	<ul style="list-style-type: none"> <li>• Solid timber hardwood treads better suited to immersion.</li> <li>• Stairway width to be suitable for ease of movement of personal belongings to first floor level in preparation for a major flood event.</li> </ul>
<b>Doors</b>		
Solid core (external)	Preferred	<ul style="list-style-type: none"> <li>• Solid core doors have generally improved response to immersion.</li> <li>• Hollow core doors should only be used in conjunction with removable hinges to allow them to be easily relocated to the first floor in a flooding scenario.</li> </ul>
Solid core internal or hollow core on removable hinges	Preferred	
<b>Windows</b>		
Aluminium framing	Mandatory	<ul style="list-style-type: none"> <li>• In heritage conservation areas wide commercial/semi-commercial frame sections to be used to resemble painted timber window treatment.</li> </ul>
<b>Ground Floor Cabinetry (for non-habitable spaces)</b>		
Removable vanity cabinet	Preferred	<ul style="list-style-type: none"> <li>• The cost of flooding can be further reduced if joinery items located on the ground floor can be relocated to the first floor in advance of inundation.</li> <li>• Ensure that flood resistant materials are used in cabinet construction.</li> </ul>
Removable laundry cabinet(s)	Preferred	
Storage cupboards to be removable	Preferred	
<b>Electrical Services</b>		
Elevate switchboard as high as possible at exterior of building.	Mandatory	<ul style="list-style-type: none"> <li>• Consult with electrical service provider to ensure that height of meter box is consistent with its requirements.</li> </ul>
Ensure wiring is located as far as practicable within the roof space and as high as possible within walls.		<ul style="list-style-type: none"> <li>• Ensure that all electrical design and installation is undertaken by licenced contractors and that all relevant design and installation standards are complied with.</li> </ul>
Where possible all cable runs should be one length to avoid the	Mandatory	<ul style="list-style-type: none"> <li>• Ensure that all electrical design and</li> </ul>

Building Element	Requirement	Notes
need for electrical junction boxes.		installation is undertaken by licenced contractors and that all relevant design and installation standards are complied with.
Power points should be elevated to at least 600mm above ground floor level to provide some measure of protection against more frequent inundation.		
For two-storey construction lighting and power for each floor should be provided in separate circuits.		
Earth Leakage protection should be provided to all circuits.		
Conduits should be installed to allow free drainage as floodwater recedes.		
Expensive fixed electrical equipment such as air-conditioners and hot water systems should be mounted high to reduce the chance of inundation.		<ul style="list-style-type: none"> <li>• These types of equipment should be located at the rear of buildings where they are not visible to the public domain and screened.</li> </ul>
<b>External Water Tanks</b>		
Above ground	Preferred	<ul style="list-style-type: none"> <li>• Ensure that tank is located directly adjacent to external wall of building.</li> <li>• Ensure that tank is appropriately fixed to mass concrete foundation to protect against buoyancy forces.</li> <li>• Ensure that all stormwater lead-in pipes are 'snug-fit' against building and tank.</li> </ul>
Below ground	Preferred	<ul style="list-style-type: none"> <li>• Ensure that tank is appropriately anchored to resist buoyancy forces resulting from subsurface waterlogging.</li> <li>• Ensure that all stormwater lead-in pipes are 'snug-fit' against building and buried to appropriate depth.</li> </ul>

Building Element	Requirement	Notes
<b>Part of Building Above the FPL</b>		
<b>First Floor Levels<sup>4</sup></b>		
First floor levels to be established at or above the relevant flood planning level (FPL) for the site.	Mandatory	<ul style="list-style-type: none"> <li>• Ensures a higher order of protection for a significant part of the structure in the 1:100 ARI flood event.</li> </ul> Provides for storage of all ground floor furnishings and personal effects above the 1:100 ARI. Provides opportunity for residents to take refuge above the 1:100 ARI event until evacuation occurs.
<b>First floor frame / structure</b>		
Suspended concrete	Preferred	Offers best performance in inundation event
Solid sawn timber frame	Acceptable	Ensure drying to prevent decay – in some cases this might involve removal of ceiling to lower floor. Allow for some loss of load bearing capacity when saturated. Ensure adequate blocking to provide extra restraint and resist distortion. Ensure good ventilation of enclosed areas to reduce the risk of timber decay. Ensure use of either galvanised or stainless steel fasteners
Manufactured engineered beams	Acceptable	
<b>Ground floor ceiling</b>		
Fibre cement sheeting (e.g. villaboard)	Preferred	<ul style="list-style-type: none"> <li>• In some cases removal of ceiling may be required to assist in drying of floor /ceiling framing.</li> <li>• Under-floor thermal or noise insulation should be avoided where possible. If inundation occurs it should be removed post-flood to assist drying.</li> </ul>
<b>First Floor Flooring</b>		
Suspended concrete floor	Preferred	• Offers best performance in inundation event
Fibre cement sheeting	Preferred	• In these cases it is important that the floor framing be exposed post-flood to enable structural timbers to dry out.
Select plywood flooring with	Acceptable	

<sup>4</sup> Although the following components of the building will be at a level above the 1:100 ARI event the following construction requirements will nonetheless provide improved performance in inundation events that may be caused by wave action or for events that exceed the 1:100 ARI scenario. Other requirements apply to evacuation planning that must be undertaken to cater for a 1:100 ARI flood.

Building Element	Requirement	Notes
waterproof glue bond		
<b>Walls to Upper Floors (external)</b>		
Cavity brick	Preferred	<ul style="list-style-type: none"> <li>• Offers best performance in inundation event and can be constructed as a vertical extension to the ground floor cavity brick walls.</li> </ul>
Brick veneer - timber framing	Preferred	<ul style="list-style-type: none"> <li>• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to enable structural timbers to dry out – this usually involves removal of the lower section of internal wall sheeting.</li> <li>• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.</li> <li>• Ensure use of either galvanised or stainless steel fasteners.</li> </ul>
Brick Veneer - steel framing	Preferred	<ul style="list-style-type: none"> <li>• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to ensure that the steel frame sections are not ponding any water – this usually involves removal of the lower section of internal wall sheeting.</li> <li>• Holes will need to be drilled in the sides of the bottom plate channel to allow the channel to drain after a flood.</li> <li>• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.</li> </ul>
Clad frame - timber	Acceptable	<ul style="list-style-type: none"> <li>• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to enable structural timbers to dry out – this usually involves removal of the lower section of external/internal wall sheeting.</li> <li>• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.</li> <li>• External cladding material should perform satisfactorily when subject to inundation.</li> </ul>

Building Element	Requirement	Notes
		<p>Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.</p> <ul style="list-style-type: none"> <li>• Ensure use of either galvanised or stainless steel fasteners</li> </ul>
Clad Frame - steel	Acceptable	<ul style="list-style-type: none"> <li>• In these cases it is important that the wall framing (in whole or in part, be exposed post-flood to ensure that the steel frame sections are not ponding any water – this usually involves removal of the lower section of external/internal wall sheeting.</li> <li>• Holes will need to be drilled in the sides of the bottom plate channel to allow the channel to drain after a flood.</li> <li>• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.</li> <li>• External cladding material should perform satisfactorily when subject to inundation. Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.</li> </ul>
Insulation	Preferred	<ul style="list-style-type: none"> <li>• Wall insulation should comprise a non-absorbent material such as polystyrene panel.</li> </ul>
Frame connections	Preferred	<ul style="list-style-type: none"> <li>• Use flood compatible wall plate connectors and brick ties to strengthen structure.</li> </ul>
<b>Walls to Upper Floors (internal)</b>		
Solid brick / masonry	Preferred	<ul style="list-style-type: none"> <li>• Offers best performance in inundation event</li> <li>• Usually only used where first floor is suspended concrete or where the upper floor walls sit directly above lower floor walls.</li> </ul>
Frame - timber	Acceptable	<ul style="list-style-type: none"> <li>• Internal linings should be horizontally jointed to allow for removal of lower section of wall lining to allow for drying of frame. The use of an alternative material to gyprock for the lower half of internal walls – fibre cement based products such as profiled panelling which is screw fixed are recommended – to enable these to be more easily removed.</li> </ul>

Building Element	Requirement	Notes
		<ul style="list-style-type: none"> <li>• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.</li> <li>• Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.</li> </ul>
Frame - steel	Acceptable	<ul style="list-style-type: none"> <li>• Internal linings should be horizontally jointed to allow for removal of lower section of wall lining to allow for drying of frame. The use of an alternative material to gyprock for the lower half of internal walls – fibre cement based products such as profiled panelling which is screw fixed are recommended – to enable these to be more easily removed.</li> <li>• Holes will need to be drilled in the sides of the bottom plate channel to allow the channel to drain after a flood.</li> <li>• Providing a 20-30mm gap between the bottom plate and the internal wall sheeting will provide access for cleaning the wall cavity and ventilation following a flood.</li> <li>• Sheeting that requires joints to be 'set' may need to be reset following inundation and dry-out.</li> </ul>
<b>Evacuation Point</b>		
Provision of street facing verandah or balcony at first floor level.	Mandatory	<ul style="list-style-type: none"> <li>• Street facing evacuation point makes it easier for emergency rescue personnel to identify and access residents in need to evacuation.</li> </ul>
Installation of gateway to balustrade of veranda/balcony to facilitate easier evacuation.	Mandatory	
Provide external stairs (minimum 1000mm in width) towards front of dwelling to facilitate easier evacuation.	Preferred	<ul style="list-style-type: none"> <li>• An external staircase located on the street elevation of the building connecting the ground floor level to a first floor veranda or balcony can provide improved evacuation opportunity in a larger flood event when there is substantial inundation of the ground floor. <i>Note: This may not be possible in heritage conservation areas where the design needs to integrate with streetscape.</i></li> <li>• Stairway to comprise open, solid hardwood timber treads better suited to immersion.</li> </ul>

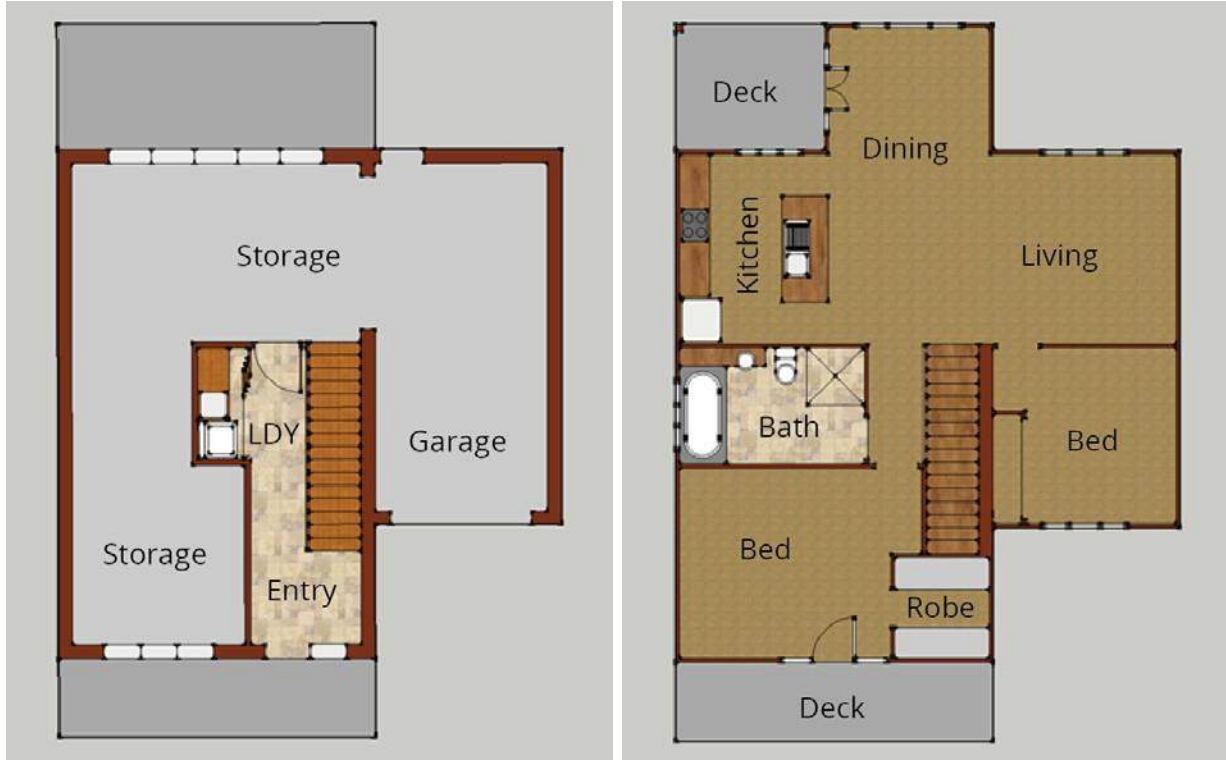


Figure 1: New Residential Development on Flood Prone Land: All habitable floor space located above the FPL. Ground floor area nominated for use as garaging and/or storage (non-habitable space).

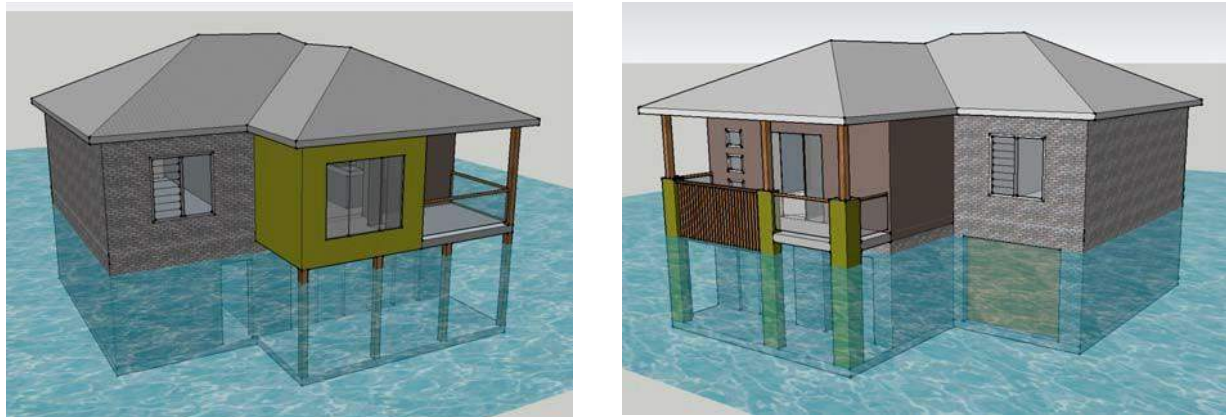


Figure 2: Typical elevations of building with non-habitable floor space below the FPL.

## Definitions

◆ The following definitions are provided to help interpret this development control plan. These definitions do not replace the definitions of the Maitland Local Environmental Plan. Where an inconsistency exists, the definition in the LEP prevails.

Annual exceedance probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, if a peak flood discharge of 500 m <sup>3</sup> /s has an AEP of 5%, it means that there is a 5% chance (that is one-in-20 chance) of a 500 m <sup>3</sup> /s or larger event occurring in any one year (see ARI).
Australian height datum (AHD)	A common national surface level datum approximately corresponding to mean sea level.
Average annual damage (AAD)	Depending on its size (or severity), each flood will cause a different amount of flood damage to a flood prone area. AAD is the average damage per year that would occur in a nominated development situation from flooding over a very long period of time.
Average recurrence interval (ARI)	The long term average number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 20 year ARI flood event will occur on average once every 20 years. ARI is another way of expressing the likelihood of occurrence of a flood event.
Consent authority	The Council, government agency or person having the function to determine a development application for land use under the EP&A Act. The consent authority is most often the Council, however legislation or an EPI may specify a Minister or public authority (other than a Council), or the Director General of DIPNR, as having the function to determine an application.
Discharge	The rate of flow of water measured in terms of volume per unit time, for example, cubic metres per second (m <sup>3</sup> /s). Discharge is different from the speed or velocity of flow, which is a measure of how fast the water is moving for example, metres per second (m/s).
Effective warning time	The time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken. The effective warning time is typically used to move farm equipment, move stock, raise furniture, evacuate people and transport their possessions.
Emergency management	A range of measures to manage risks to communities and the environment. In the flood context it may include measures to prevent, prepare for, respond to and recover from flooding.



Flash flooding	Flooding which is sudden and unexpected. It is often caused by sudden local or nearby heavy rainfall. Often defined as flooding which peaks within six hours of the causative rain.
Flood awareness	Flood awareness is an appreciation of the likely effects of flooding and a knowledge of the relevant flood warning, response and evacuation procedures.
Flood fringe areas	The remaining area of flood prone land after floodway and flood storage areas have been defined.
Flood liable land	Is synonymous with flood prone land. Note that the term flood liable land covers the whole of the floodplain, not just that part below the FPL (see flood planning area).
Flood mitigation structure	A levee, control bank, spillway or flood-gate forming part of the Hunter Valley Flood Mitigation Scheme, as identified on the database held by authority responsible for management of the Scheme
Floodplain	Area of land which is subject to inundation by floods up to and including the PMF event, that is, flood prone land.
Flood plan (local)	A sub-plan of a disaster plan that deals specifically with flooding. They can exist at State, Division and local levels. Local flood plans are prepared under the leadership of the State Emergency Service.
Flood planning area	The area of land below the FPL and thus subject to flood related development controls. The concept of flood planning area generally supersedes the "flood liable land" concept in the 1986 Manual.
Flood planning level (FPL)	For the purposes of this document FPL means the level of a 1:100 ARI (average recurrent interval) flood event plus a 0.5m freeboard.
Flood proofing	A combination of measures incorporated in the design, construction and alteration of individual buildings or structures subject to flooding, to reduce or eliminate flood damages.
Flood prone land	Is land susceptible to flooding by the Probable Maximum Flood (PMF) event. Flood prone land is synonymous with flood liable land.
Flood readiness	Flood readiness is an ability to react within the effective warning time.
Flood risk	Potential danger to personal safety and potential damage to property resulting from flooding. The degree of risk varies with circumstances across the full range of floods. Flood risk in this manual is divided into 3 types, existing, future and continuing risks. They are described below. <ul style="list-style-type: none"> <li>Existing flood risk: the risk a community is exposed to as a result of its</li> </ul>

	<p>location on the floodplain.</p> <ul style="list-style-type: none"> <li>• Future flood risk: the risk a community may be exposed to as a result of new development on the floodplain.</li> <li>• Continuing flood risk: the risk a community is exposed to after floodplain risk management measures have been implemented. For a town protected by levees, the continuing flood risk is the consequences of the levees being overtopped. For an area without any floodplain risk management measures, the continuing flood risk is simply the existence of its flood exposure.</li> </ul>
Flood storage areas	Those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. The extent and behaviour of flood storage areas may change with flood severity, and loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation. Hence, it is necessary to investigate a range of flood sizes before defining flood storage areas.
Floodway areas	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flows, or a significant increase in flood levels.
Freeboard	Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for the FPL is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the FPL.
Habitable room	<p>in a residential situation: a living or working area designed, constructed or adapted for activities normally associated with domestic living, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom. A garage, storage room, laundry, lobby, bathroom or external verandah, balcony or terrace is not categorised as a habitable room.</p> <p>in an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.</p>
Hazard	A source of potential harm or a situation with a potential to cause loss.
Hydraulics	Term given to the study of water flow in waterways; in particular, the evaluation of flow parameters such as water level and velocity.
Hydrograph	A graph which shows how the discharge or stage/flood level at any particular location varies with time during a flood.

Hydrology	Term given to the study of the rainfall and runoff process; in particular, the evaluation of peak flows, flow volumes and the derivation of hydrographs for a range of floods.
Local overland flooding	Inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.
Local drainage	Smaller scale problems in urban areas. They are outside the definition of mainstream flooding in this glossary.
Mainstream flooding	Inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.
Mathematical/ computer models	The mathematical representation of the physical processes involved in runoff generation and stream flow. These models are often run on computers due to the complexity of the mathematical relationships between runoff, stream flow and the distribution of flows across the floodplain.
Probable maximum flood (PMF)	The PMF is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation, and where applicable, snow melt, coupled with the worst flood producing catchment conditions. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain. The extent, nature and potential consequences of flooding associated with a range of events rarer than the flood used for designing mitigation works and controlling development, up to and including the PMF event should be addressed in a floodplain risk management study.
Risk	Chance of something happening that will have an impact. It is measured in terms of consequences and likelihood. In the context of the manual it is the likelihood of consequences arising from the interaction of floods, communities and the environment.
Survey plan	A plan prepared by a registered surveyor.

## 4. Flood maps

The following flood maps provide the basis for many of the development controls and policy relating to development in flood affected areas.

### 4.1 Flood Extent Map Series

Flood Extent Maps show the following:

1. 1:100 ARI Flood Extent (shown pale blue)
2. Flood Planning Area being the 1:100 ARI Flood Extent plus 0.5m freeboard (shown dark blue hatching); and
3. Probable Maximum Flood (PMF) extent (shown as red line).

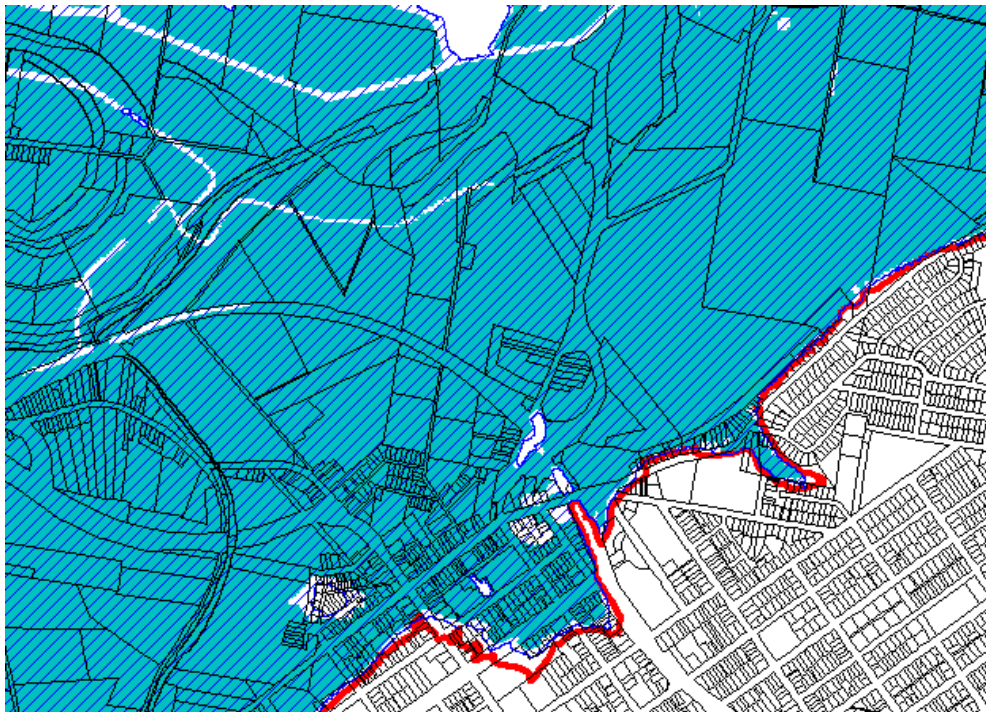





Figure 3: Example of flood extent mapping.







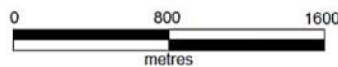
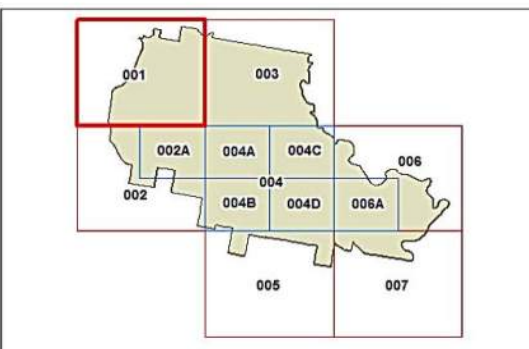
**Maitland Citywide  
Development  
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**Floodplain Management DCP -  
Flood Extents\_Sheet 001**

-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council

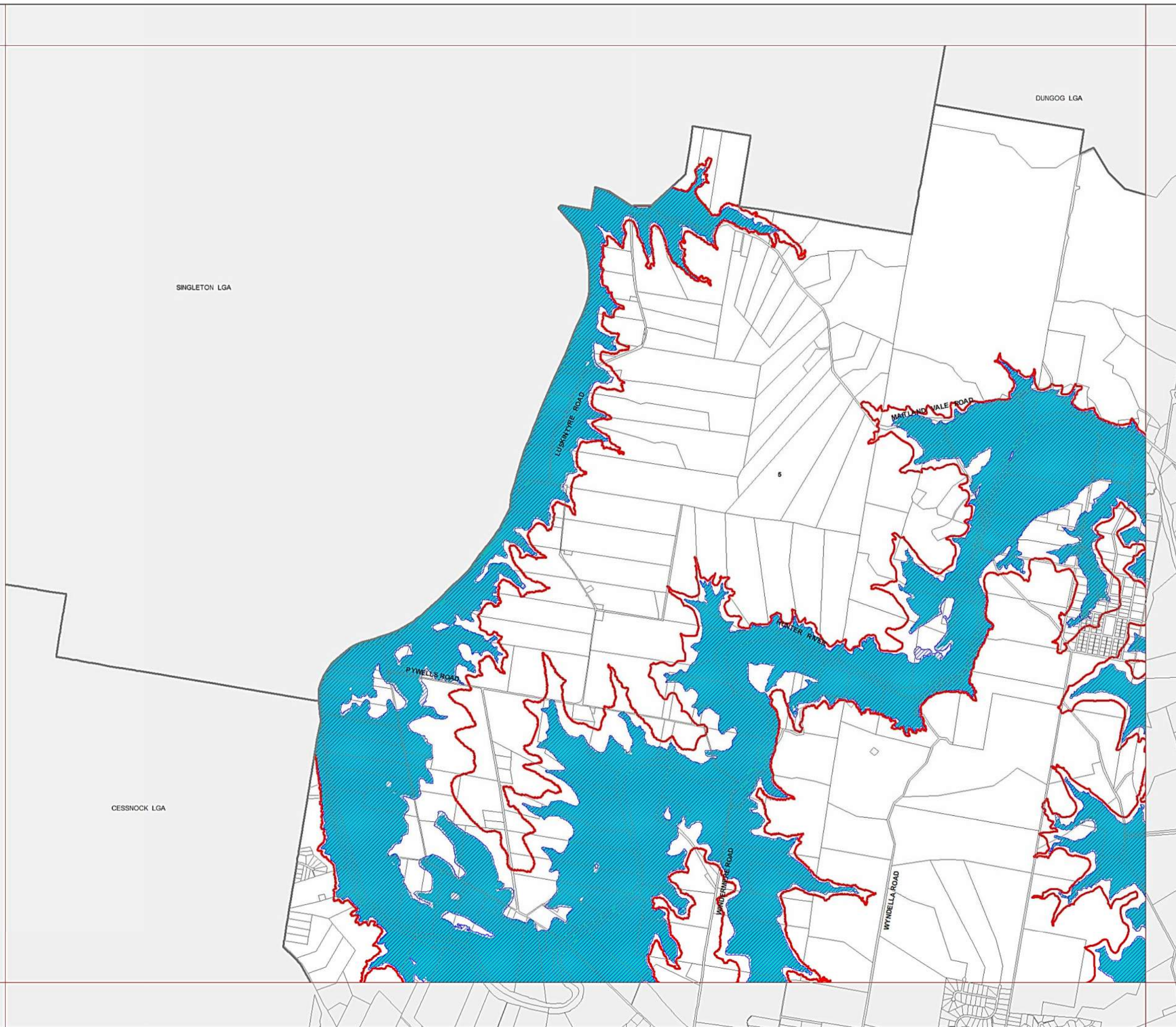


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Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP\_FLD\_001\_040\_20140827












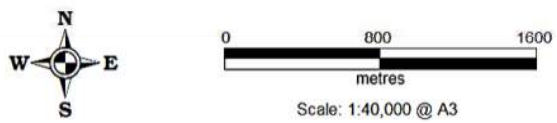
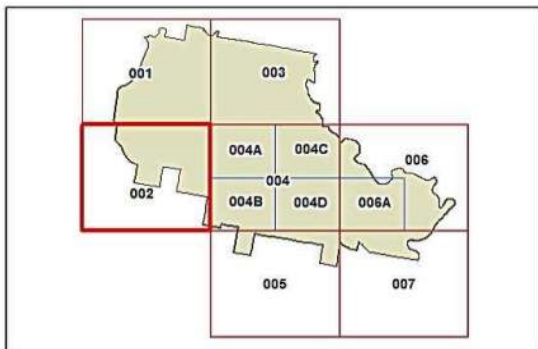
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Extents\_Sheet 002**

-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP\_FLD\_002\_040\_20140827












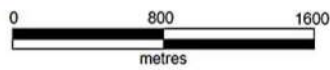
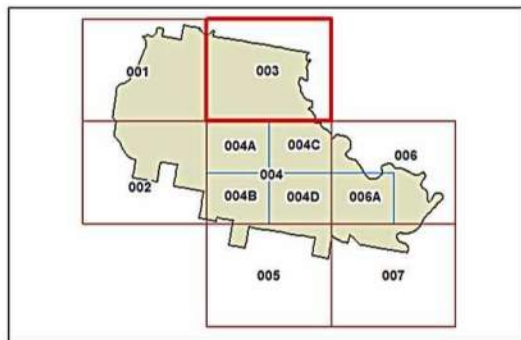
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Extents\_Sheet 003**

-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council

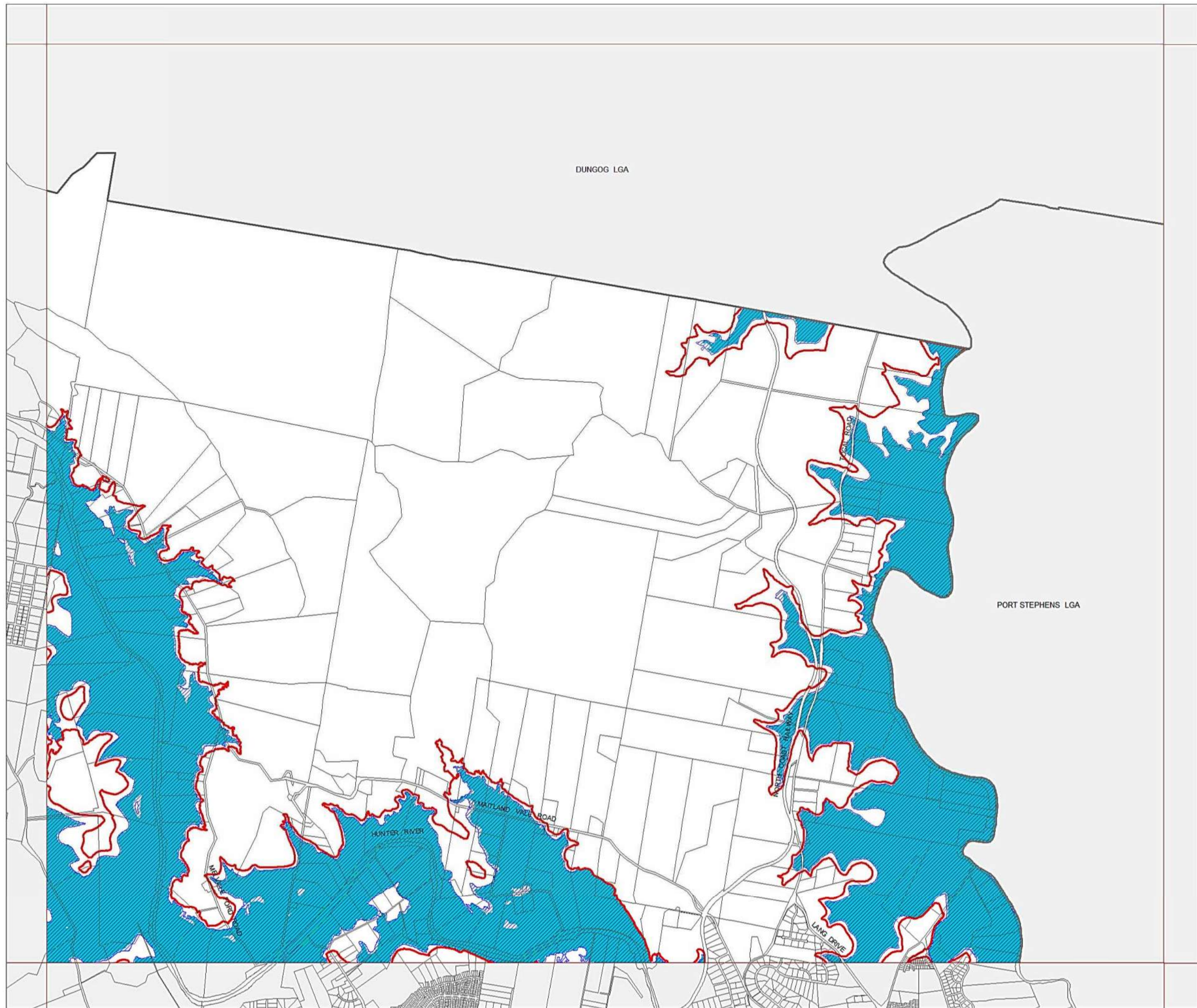


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Map identification number:

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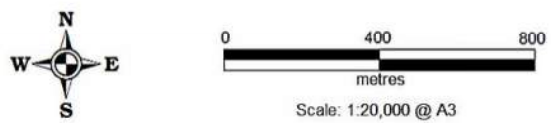
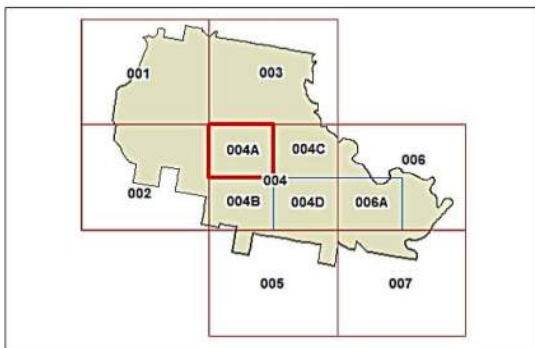
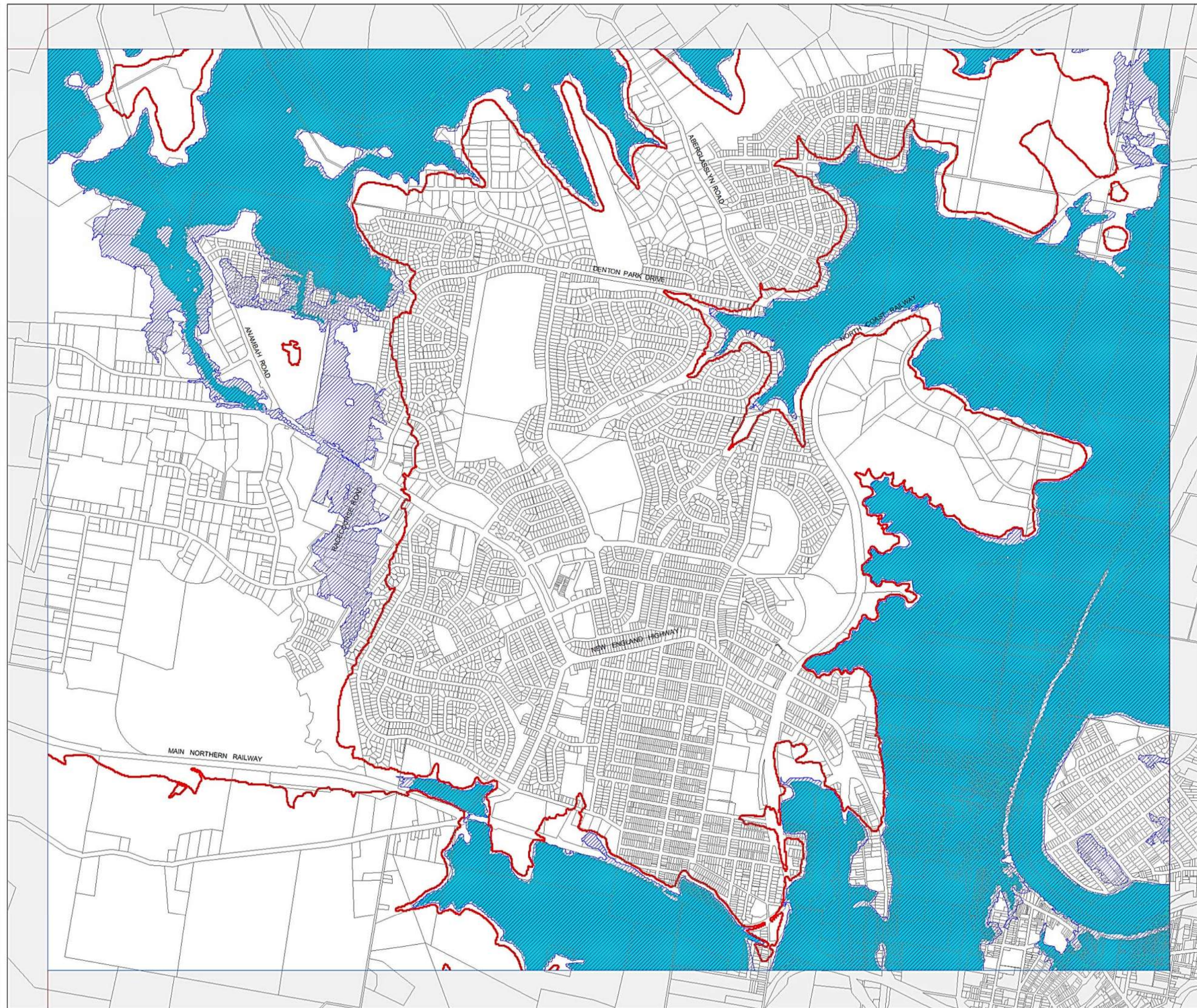
**Maitland Citywide  
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**Floodplain Management DCP -  
Flood Extents\_Sheet 004A**

-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council







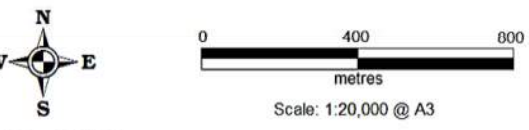
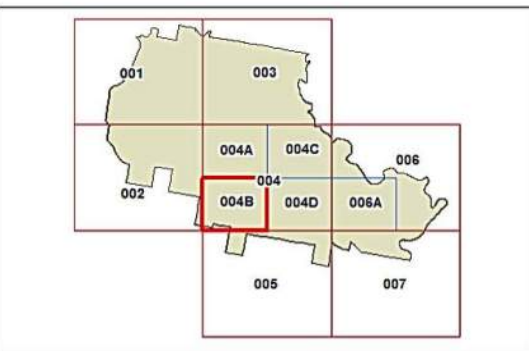
**Maitland Citywide  
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**Floodplain Management DCP -  
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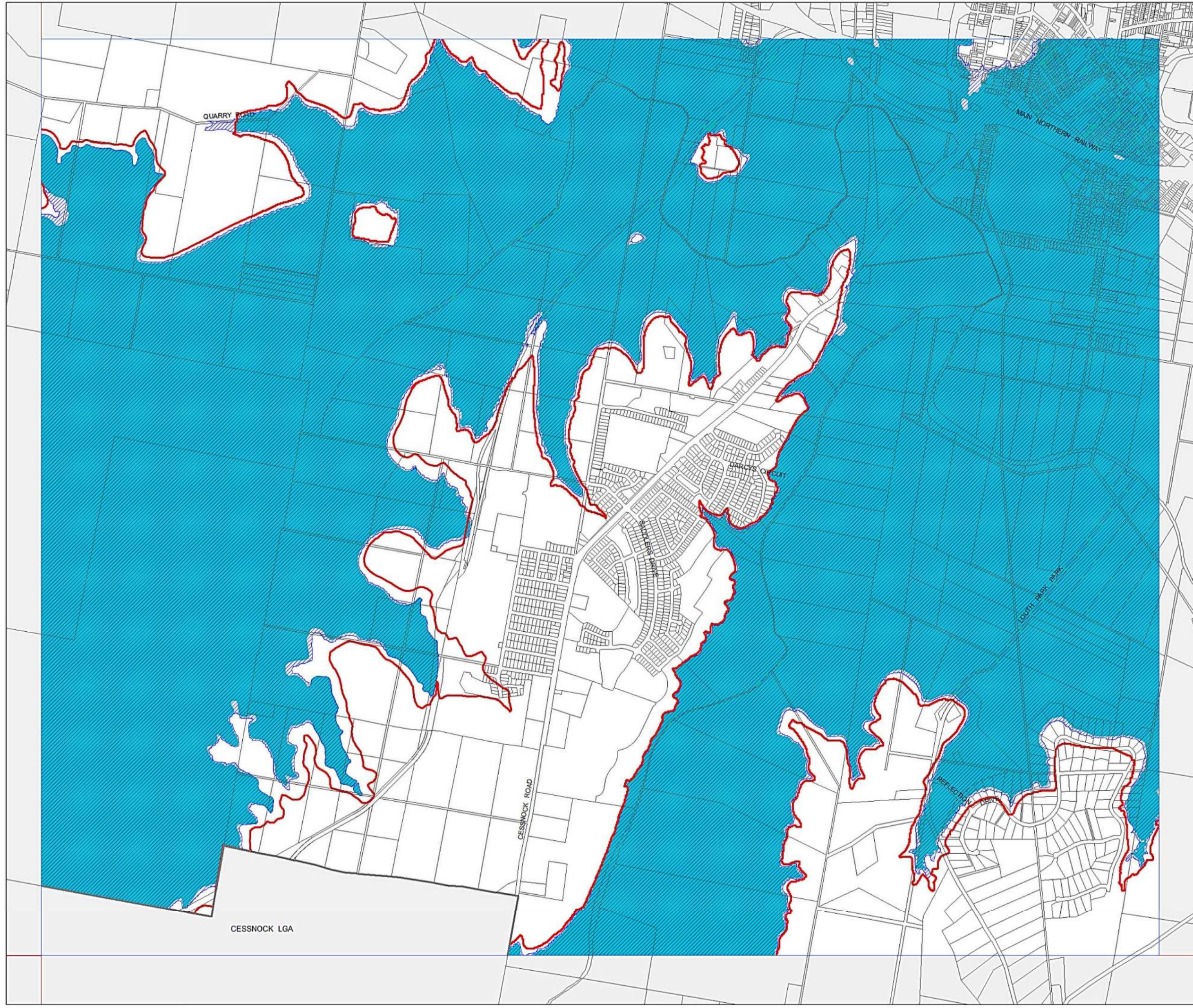
- Probable Maximum Flood (PMF)
- Flood Planning Area (1:100 ARI plus 0.5m)
- 1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

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Projection: GDA 1994  
Zone 56  
Map identification number:  
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










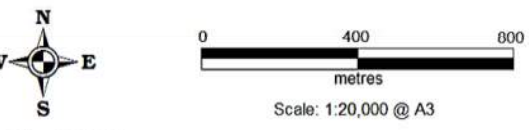
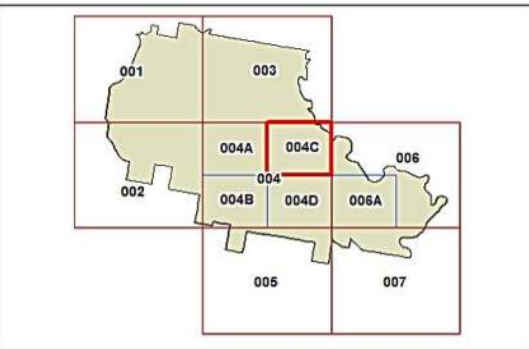
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
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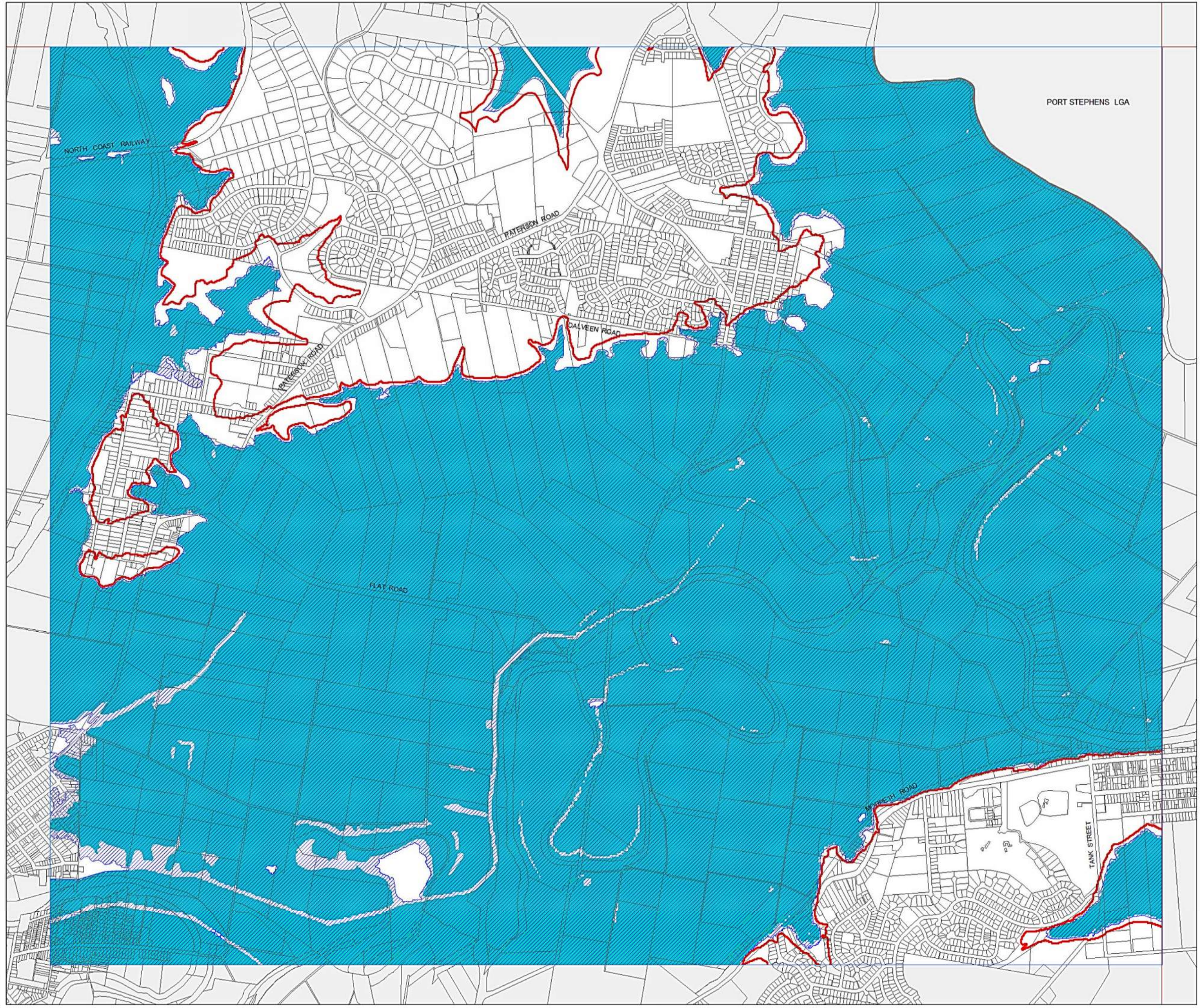
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-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

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Zone 56  
Map identification number:  
Floodplain Management DCP\_FLD\_004C\_020\_20140827












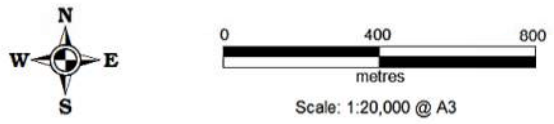
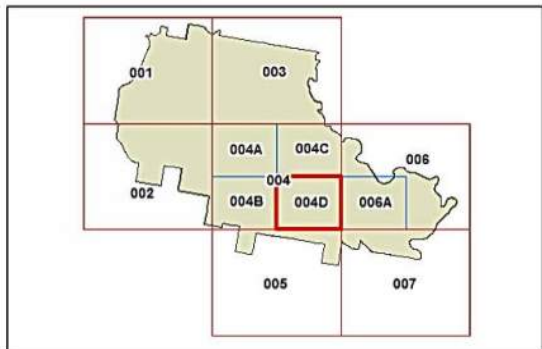
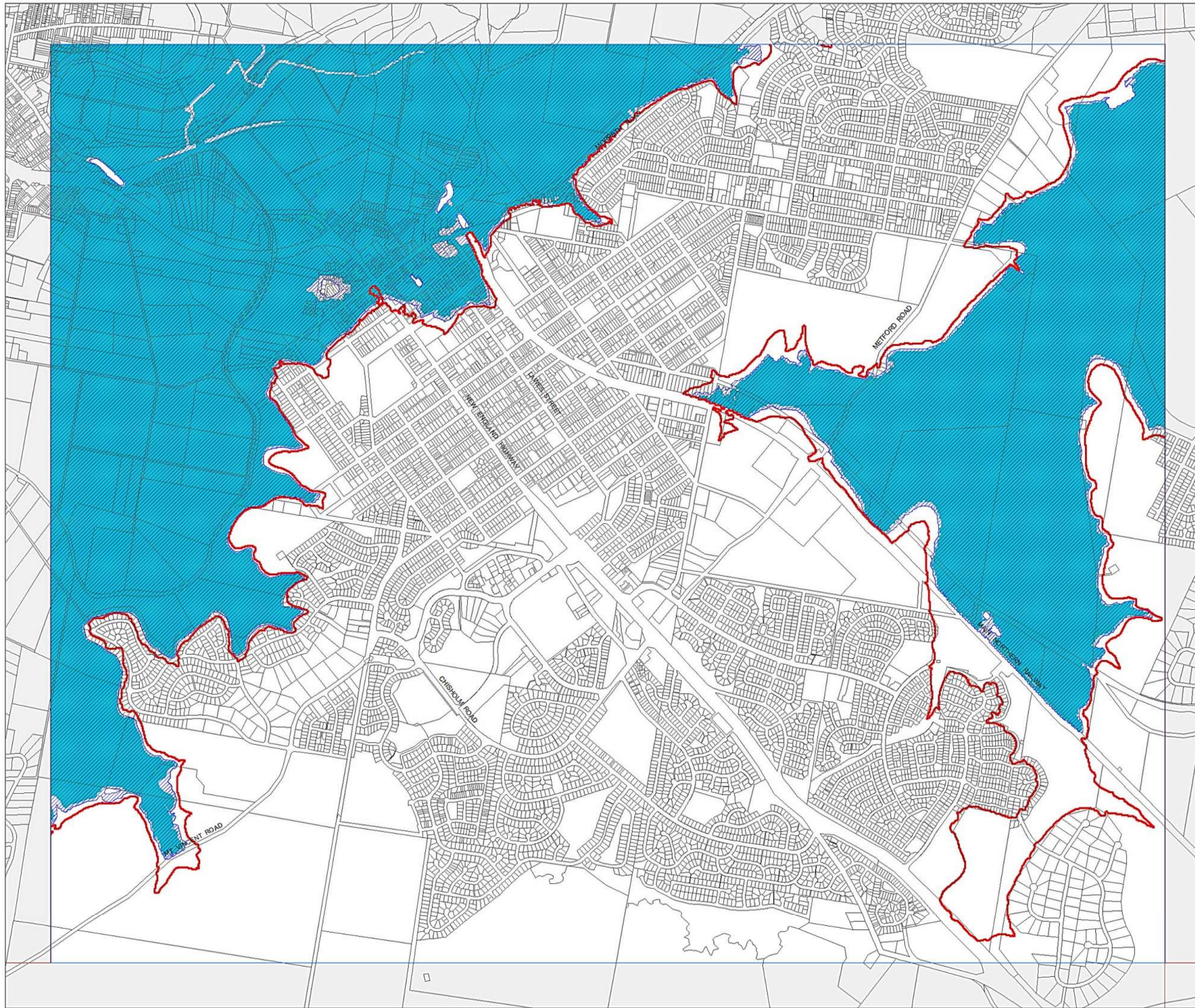
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Development  
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**Floodplain Management DCP -  
Flood Extents\_Sheet 004D**

-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

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


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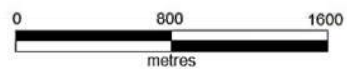
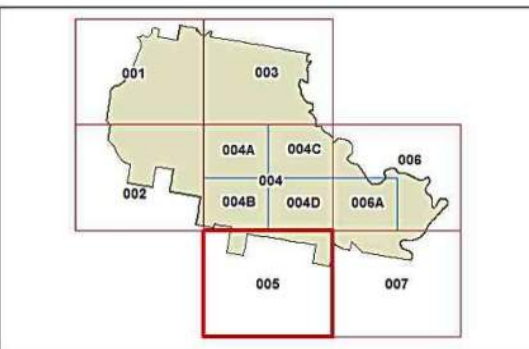
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Extents\_Sheet 005**

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-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastre**

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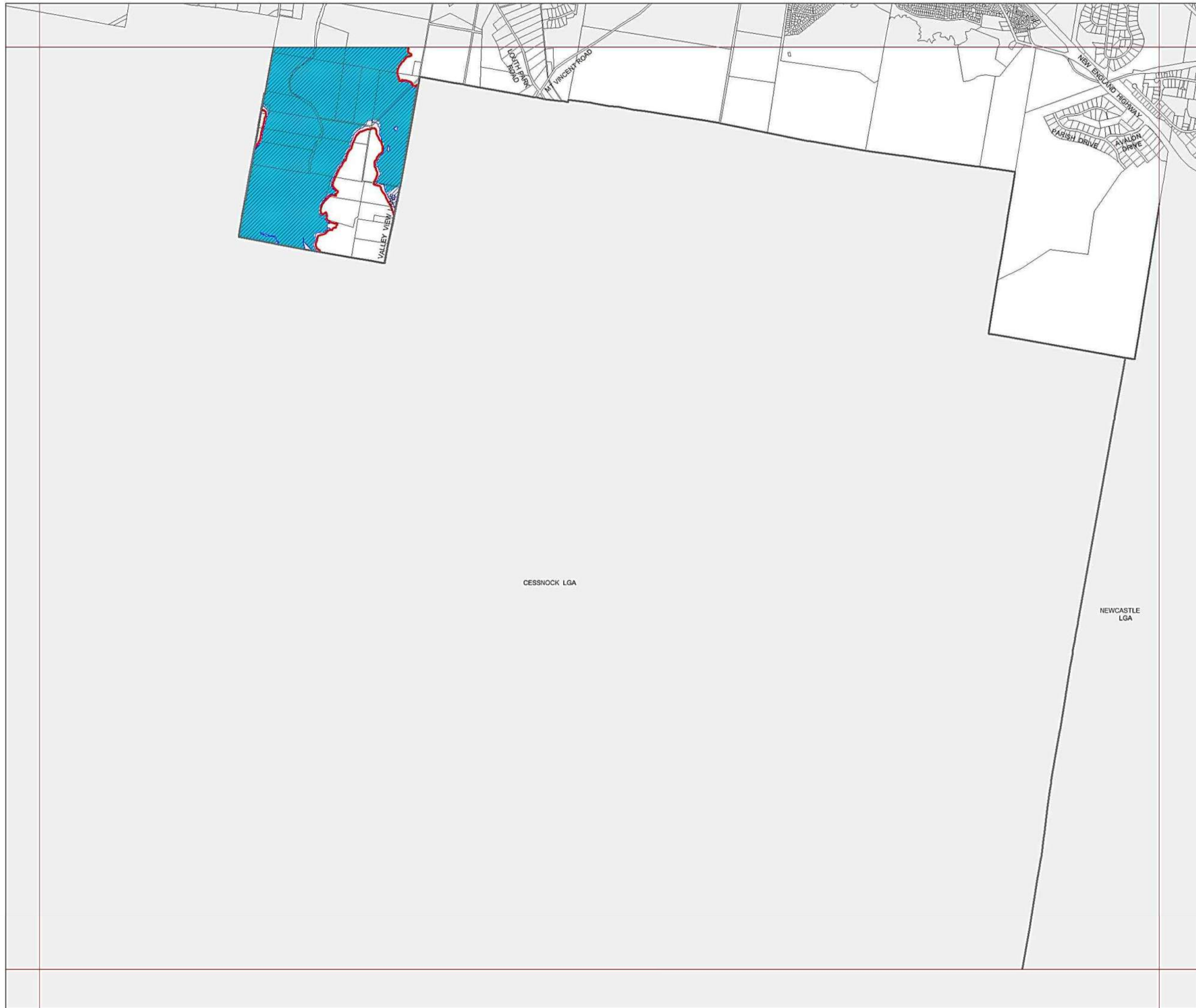


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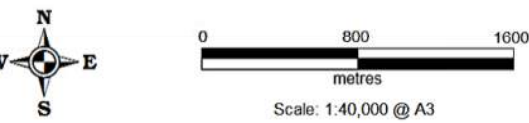
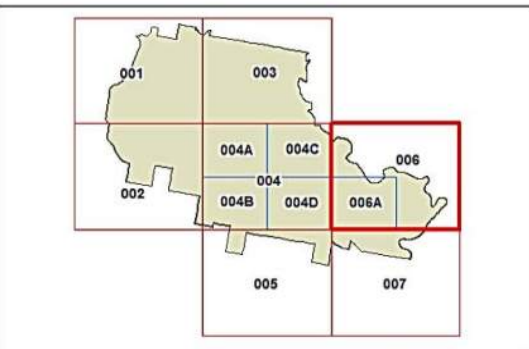
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Extents\_Sheet 006**

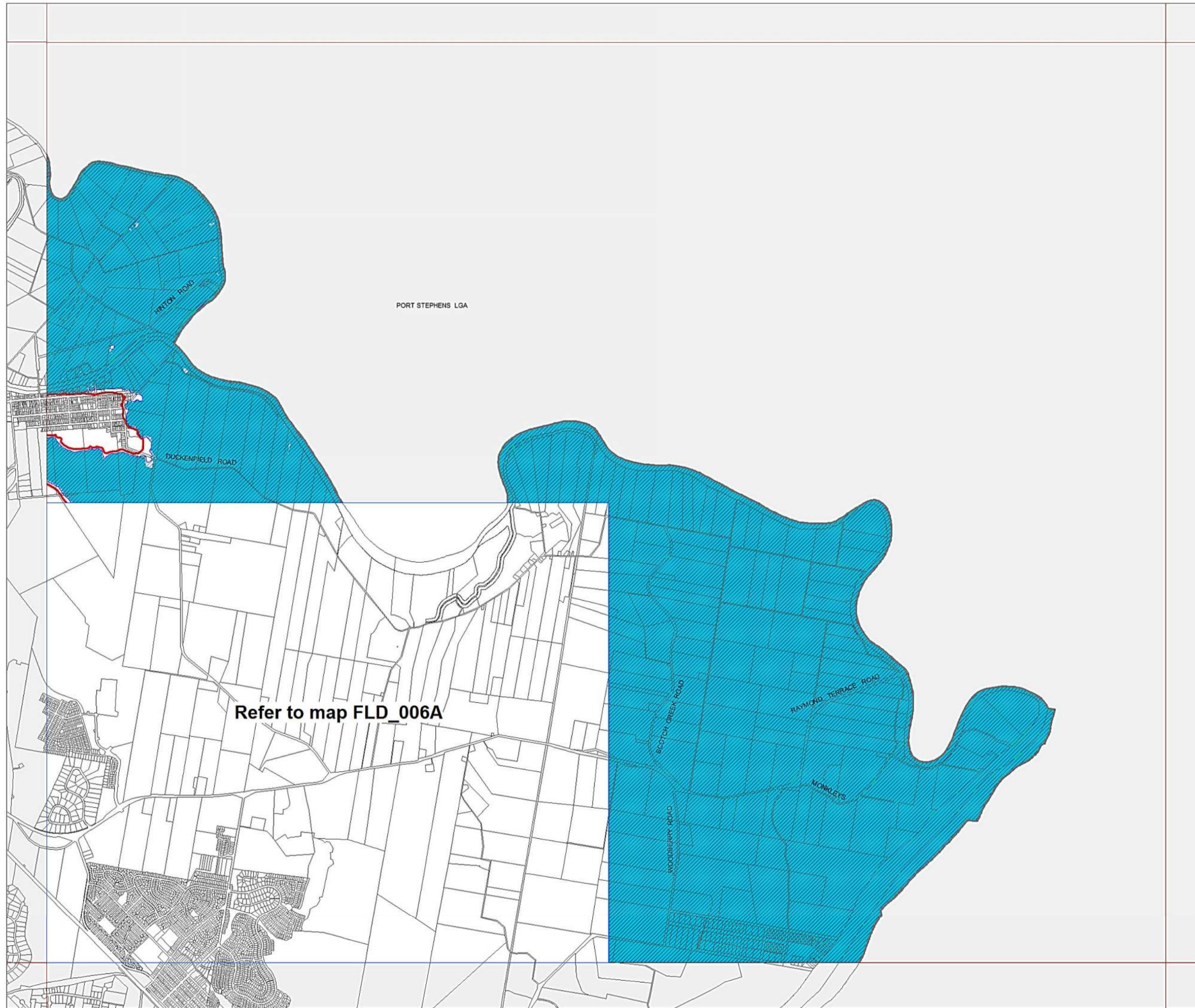
-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

**Cadastral**

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Zone 56  
Map identification number:  
Floodplain Management DCP\_FLD\_006\_040\_20140827







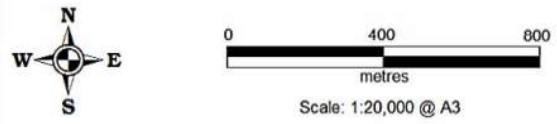
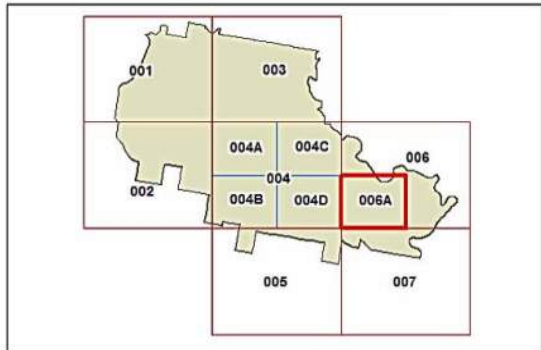
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Extents\_Sheet 006A**

- Probable Maximum Flood (PMF)
- Flood Planning Area (1:100 ARI plus 0.5m)
- 1:100 ARI (1% Annual Exceedance Probability)

**Cadastral**

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Zone 56  
Map identification number:  
Floodplain Management DCP\_FLD\_006A\_020\_20140827






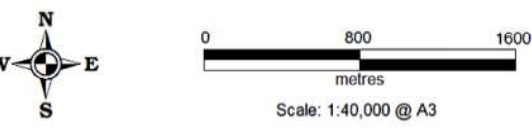
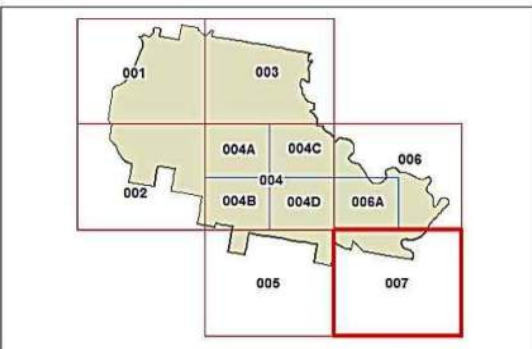
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Extents\_Sheet 007**

-  Probable Maximum Flood (PMF)
-  Flood Planning Area (1:100 ARI plus 0.5m)
-  1:100 ARI (1% Annual Exceedance Probability)

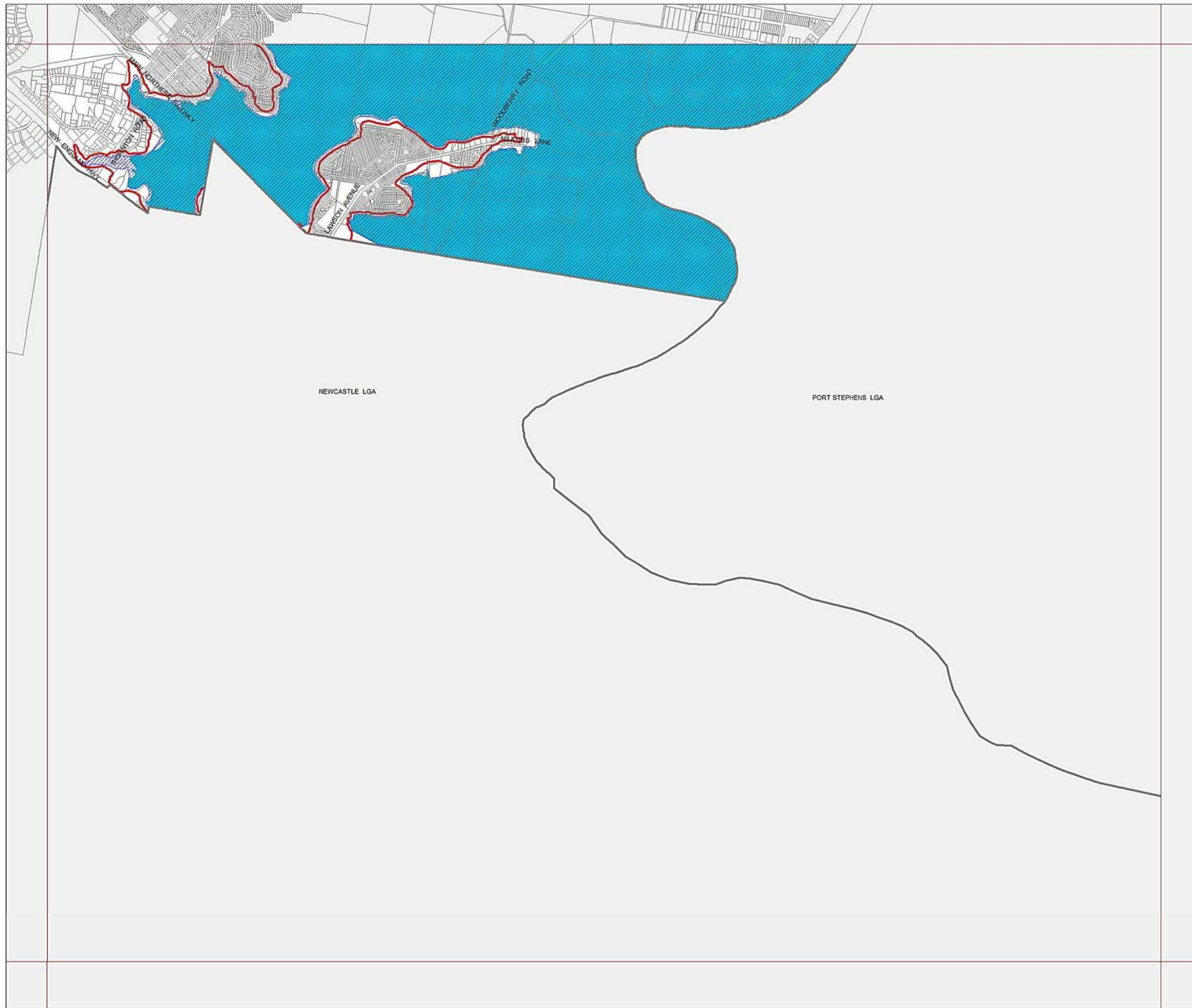
**Cadastre**

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Projection: GDA 1994  
Zone 56

Map identification number:  
Floodplain Management DCP\_FLD\_007\_040\_20140827



## 4.2 Flood Depth Maps Series

Flood Depth Maps show the following depth scenarios as they apply in the 1:100 ARI flood event:

1. Depth less than 0.5m (shown in blue); and
2. Depth greater than 0.5m (shown in red).

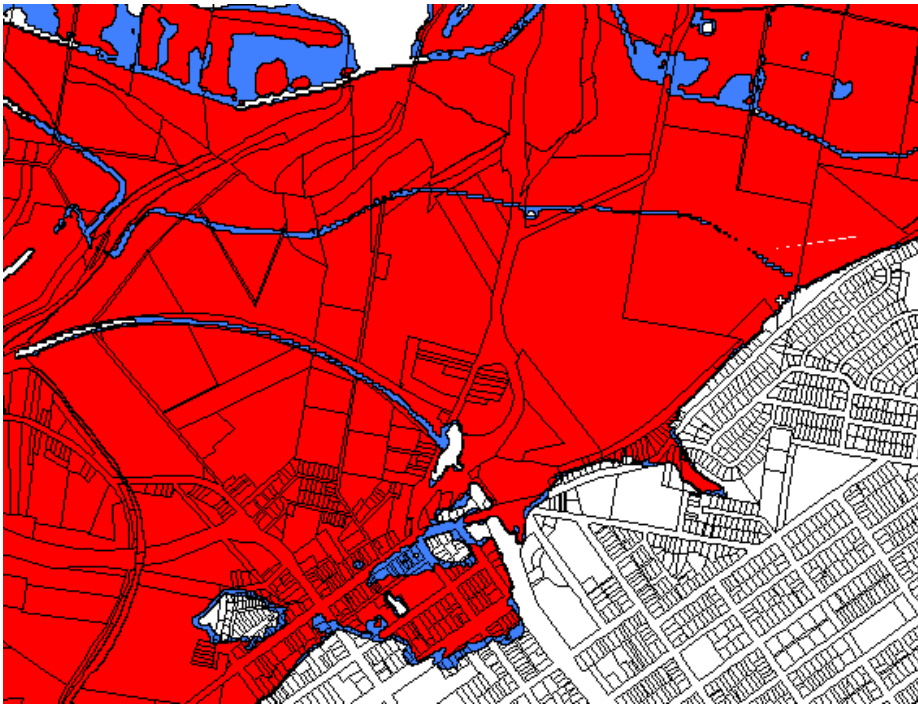


Figure 4: Example of flood depth mapping.





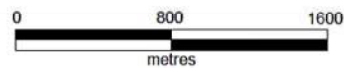
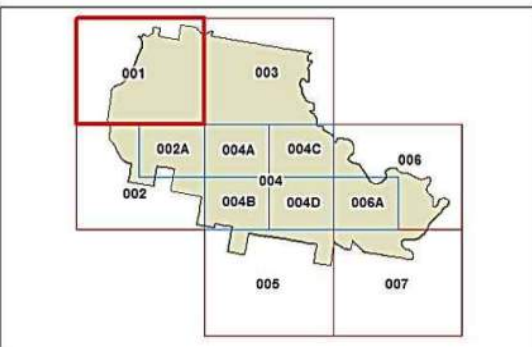
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Depth\_Sheet 001

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

### Cadastral

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council

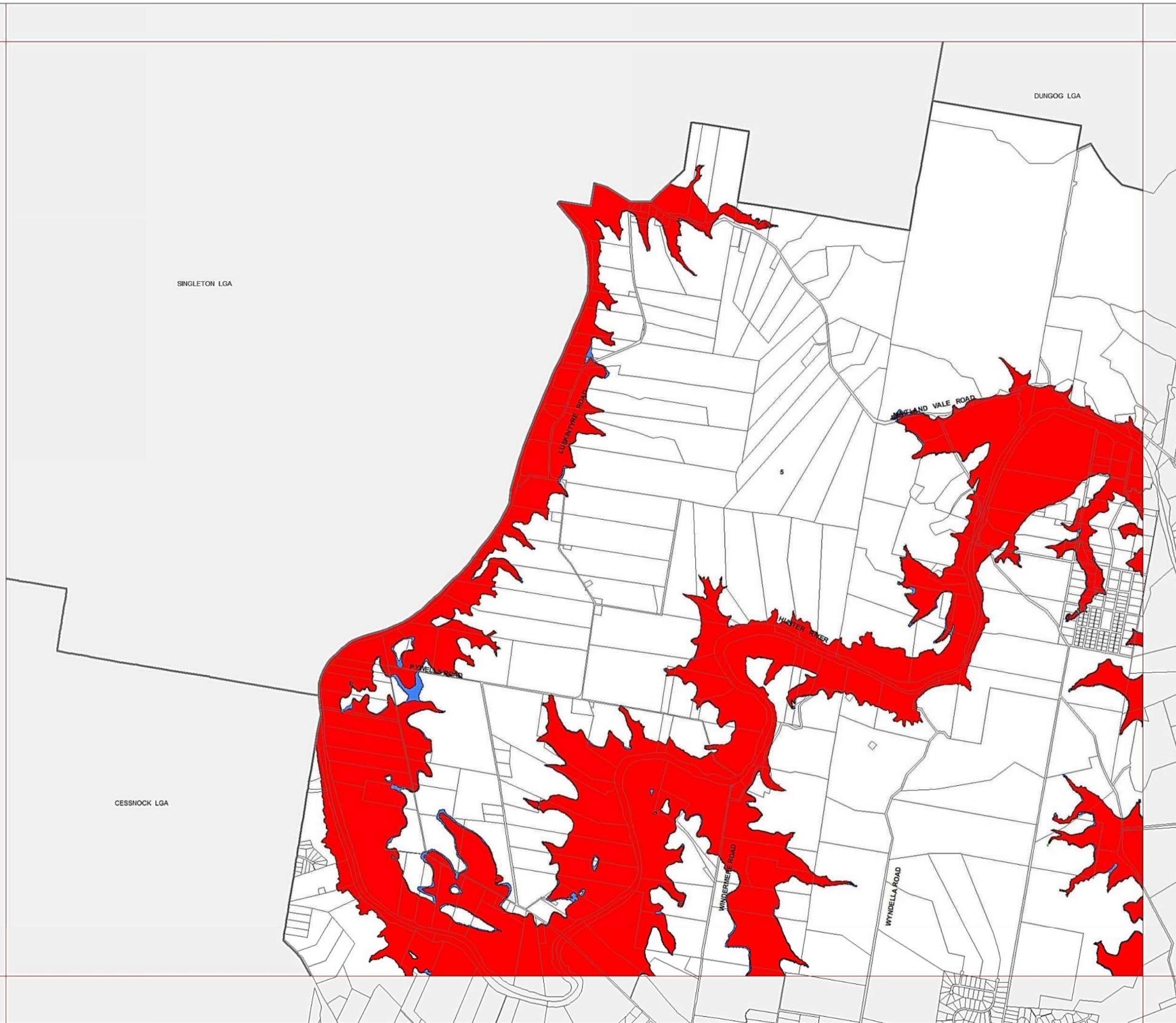


Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Depth)\_FLD\_001\_040\_20140611







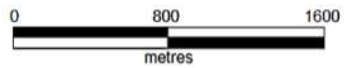
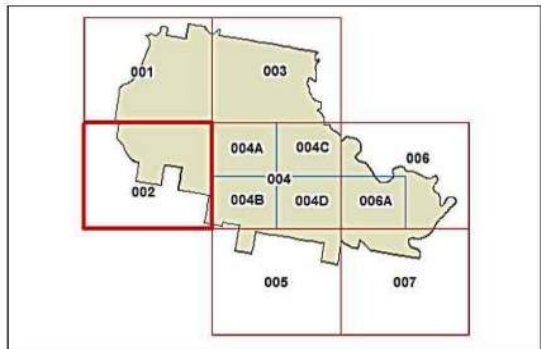
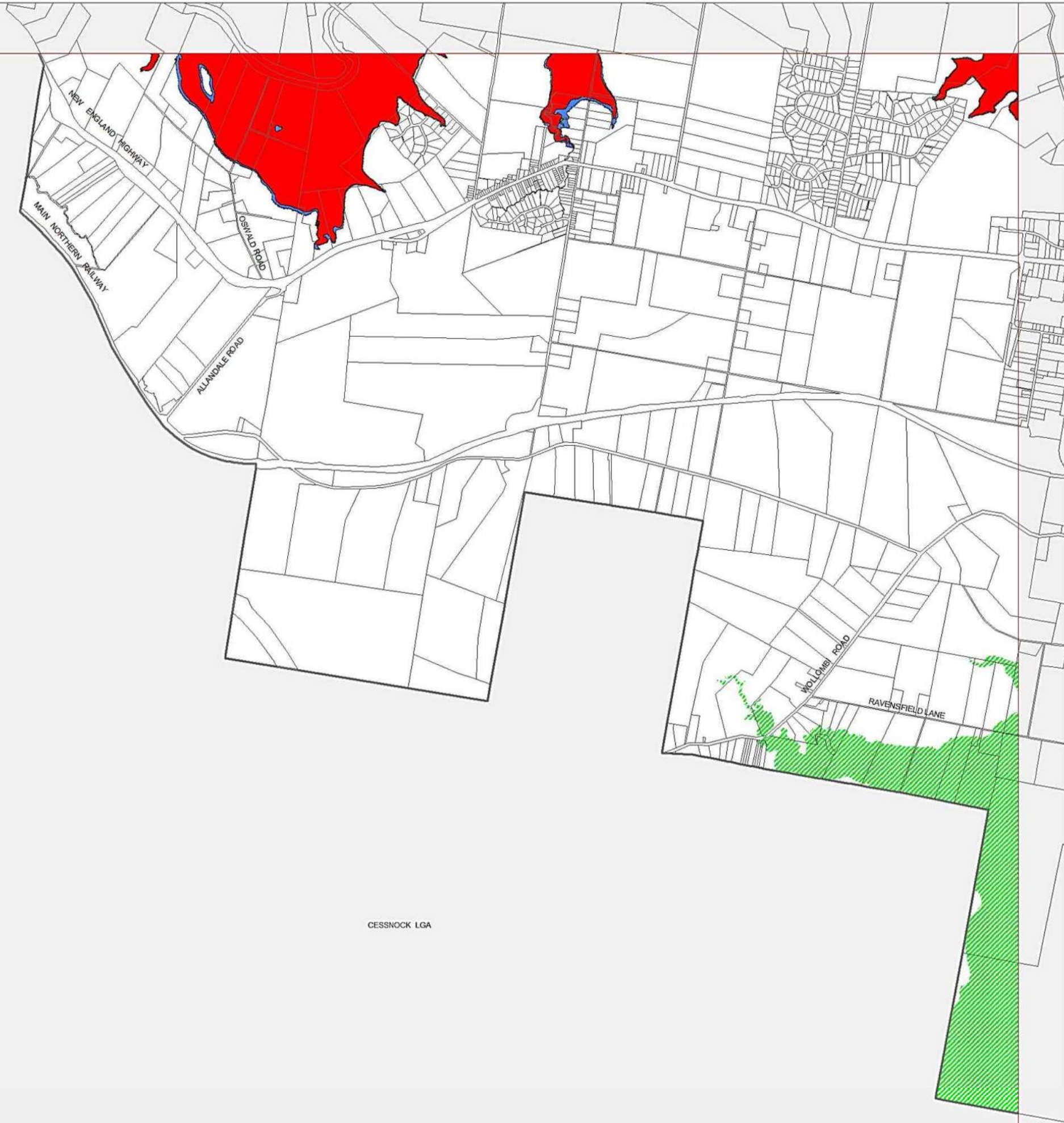
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 002**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Depth)\_FLD\_002\_040\_20140611





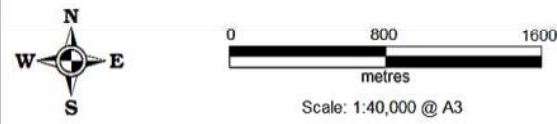
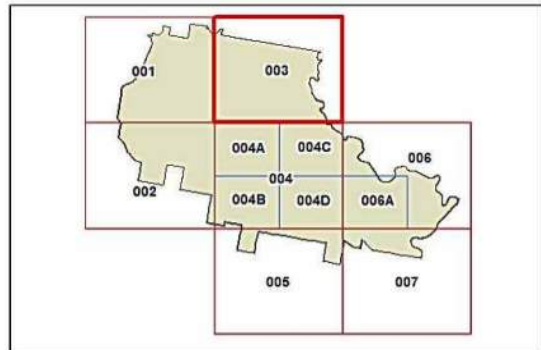
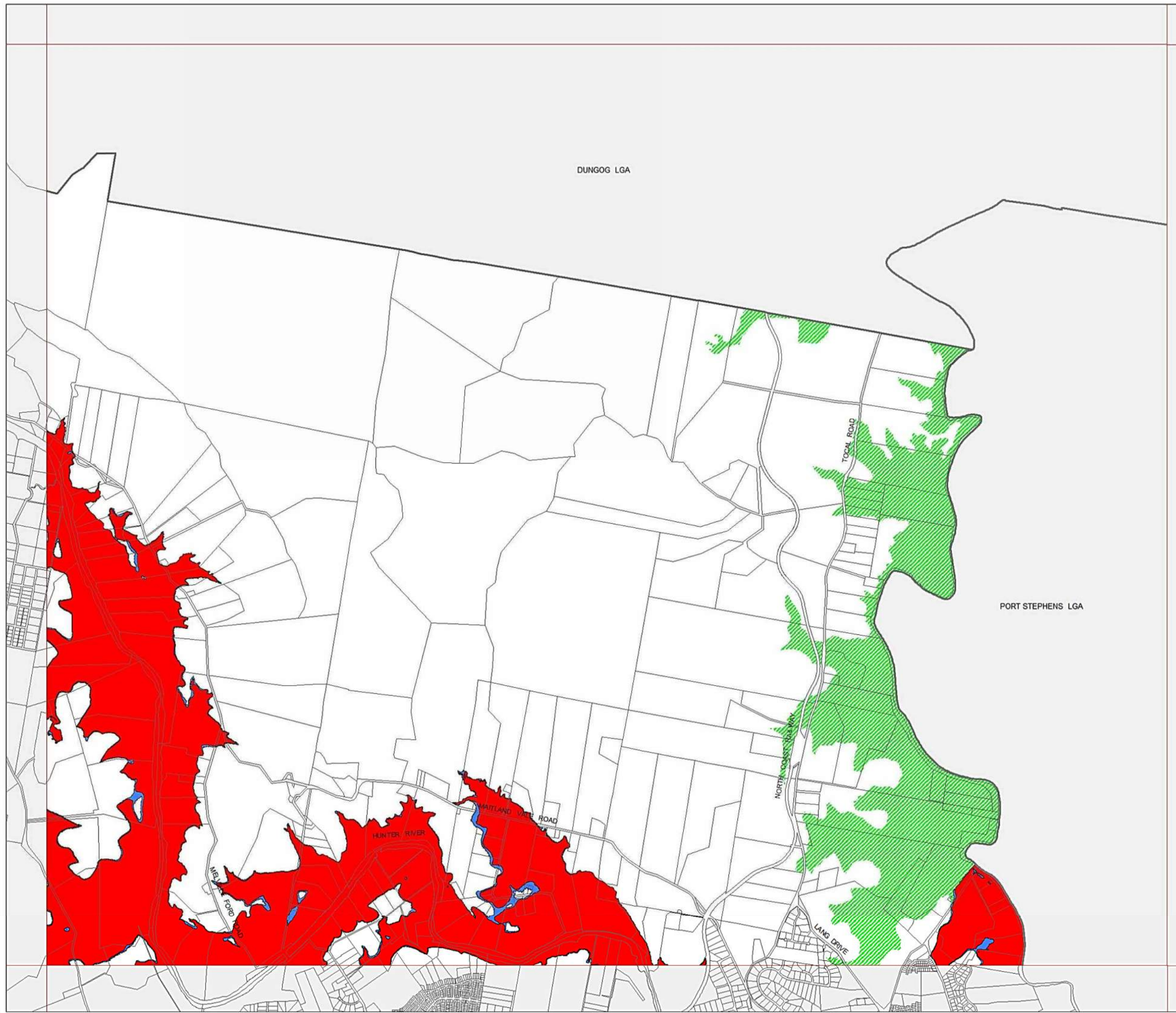
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Depth\_Sheet 003

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

### Cadastre

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Depth)\_FLD\_003\_040\_20140611





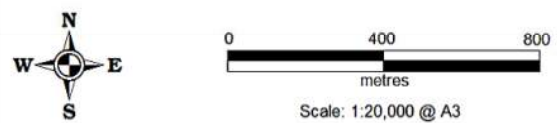
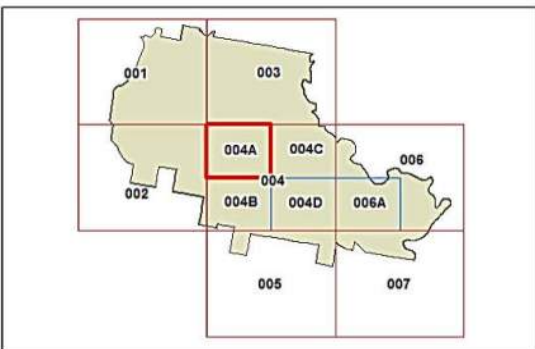
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 004A**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council







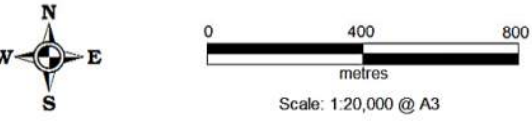
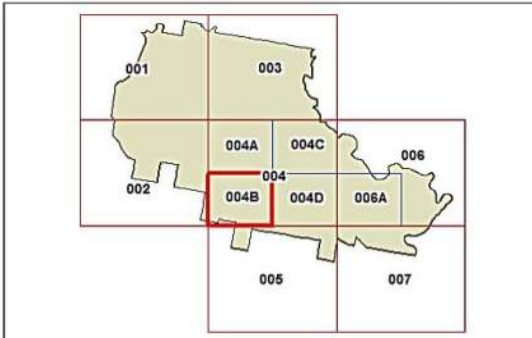
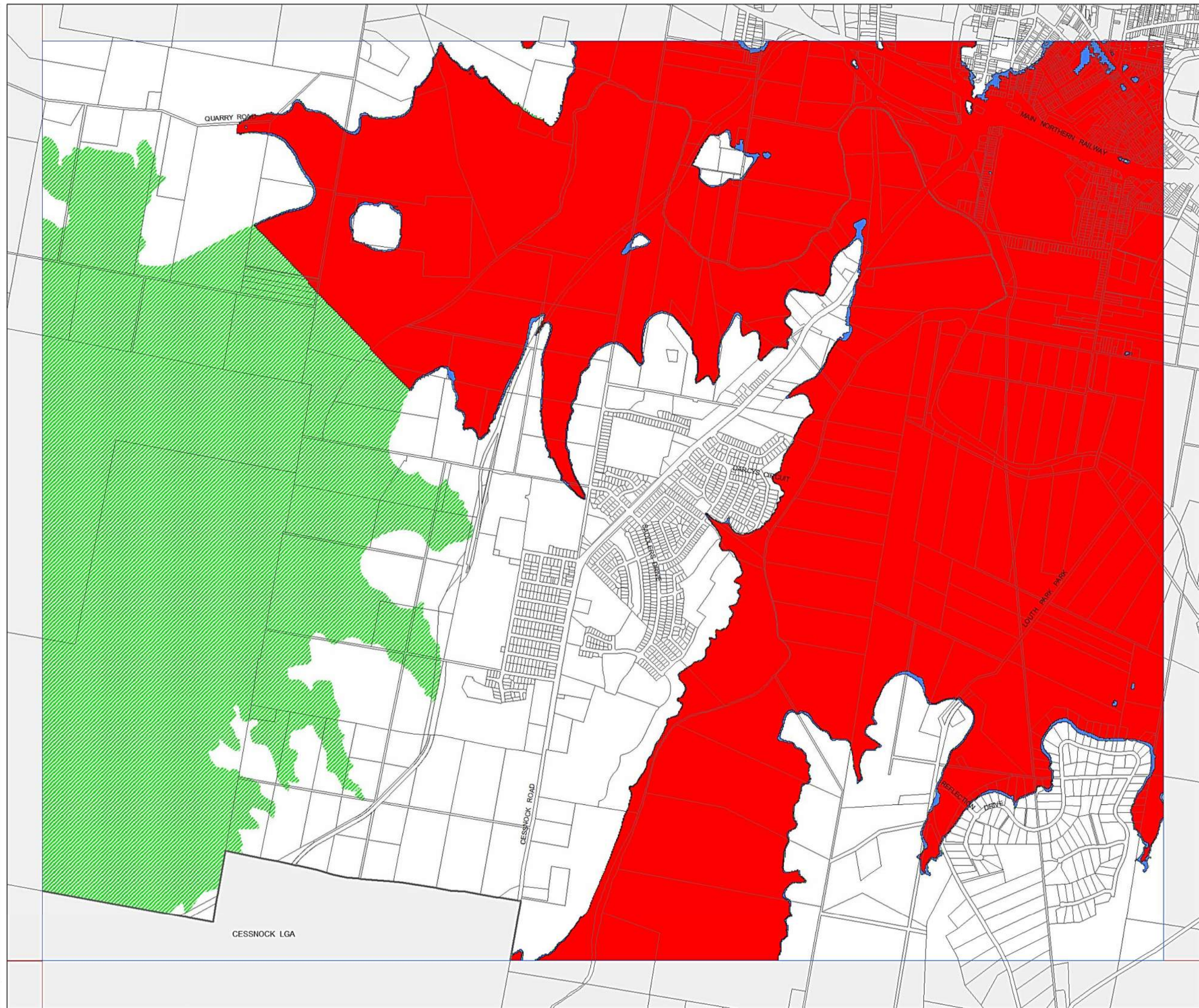
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 004B**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastral**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Depth)\_FLD\_004B\_020\_20140611



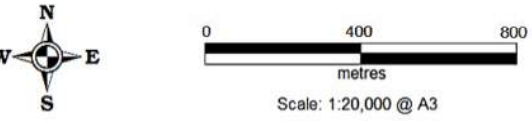
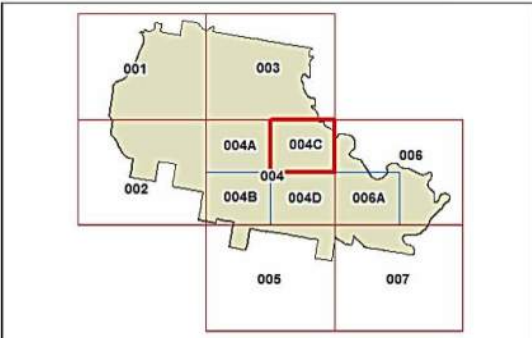


**Maitland Citywide  
Development  
Control Plan 2011**

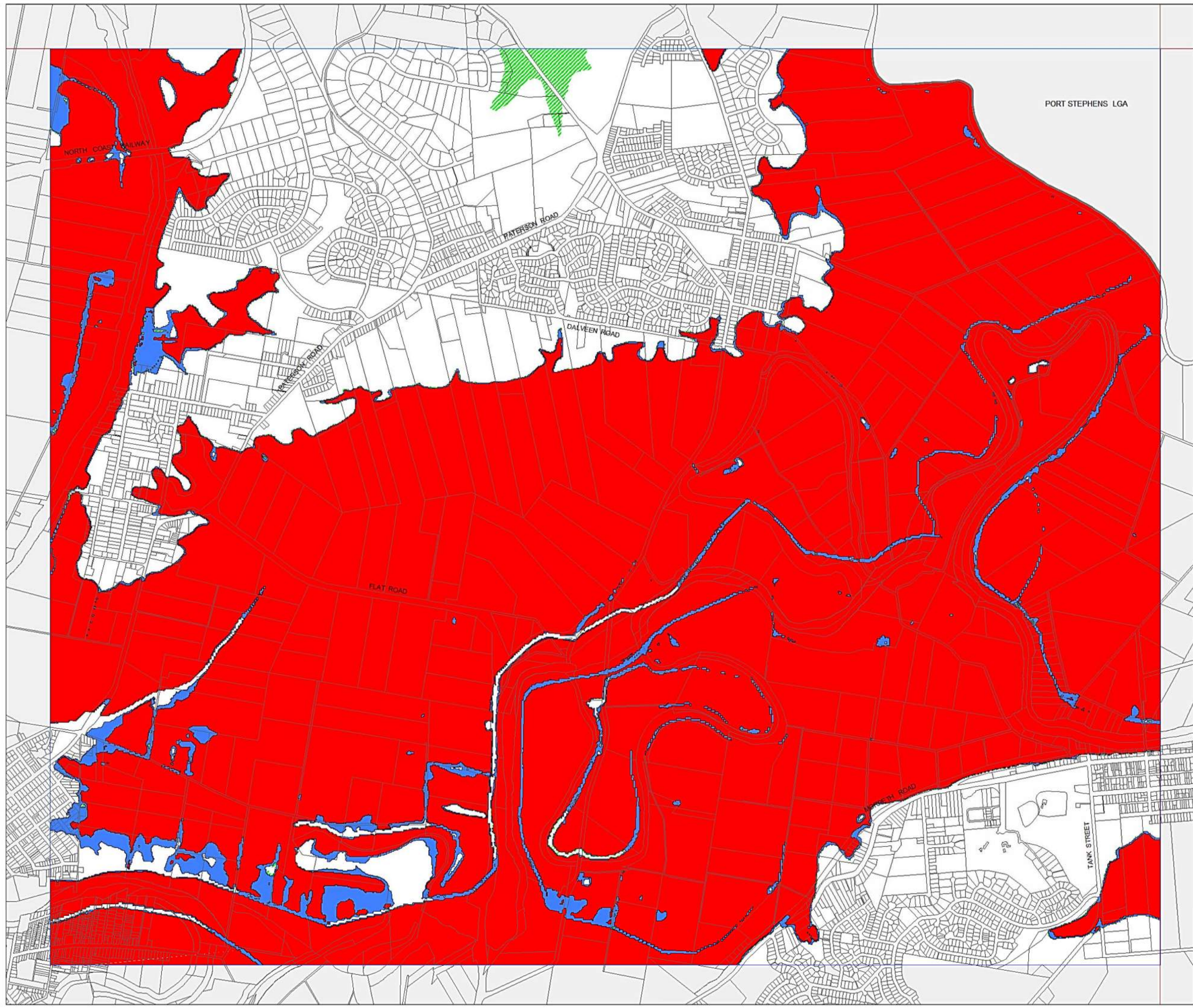
**Floodplain Management DCP -  
Flood Depth\_Sheet 004C**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastral**  
 Base data 03/03/1997 © NSW LPMA  
 Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
 Zone 56  
 Map identification number:  
 Floodplain Management DCP (Depth)\_FLD\_004C\_020\_20140611







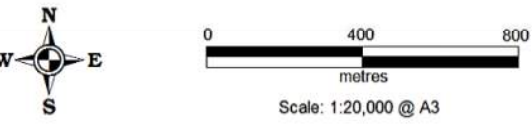
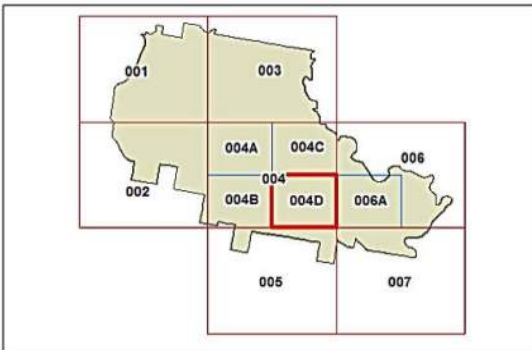
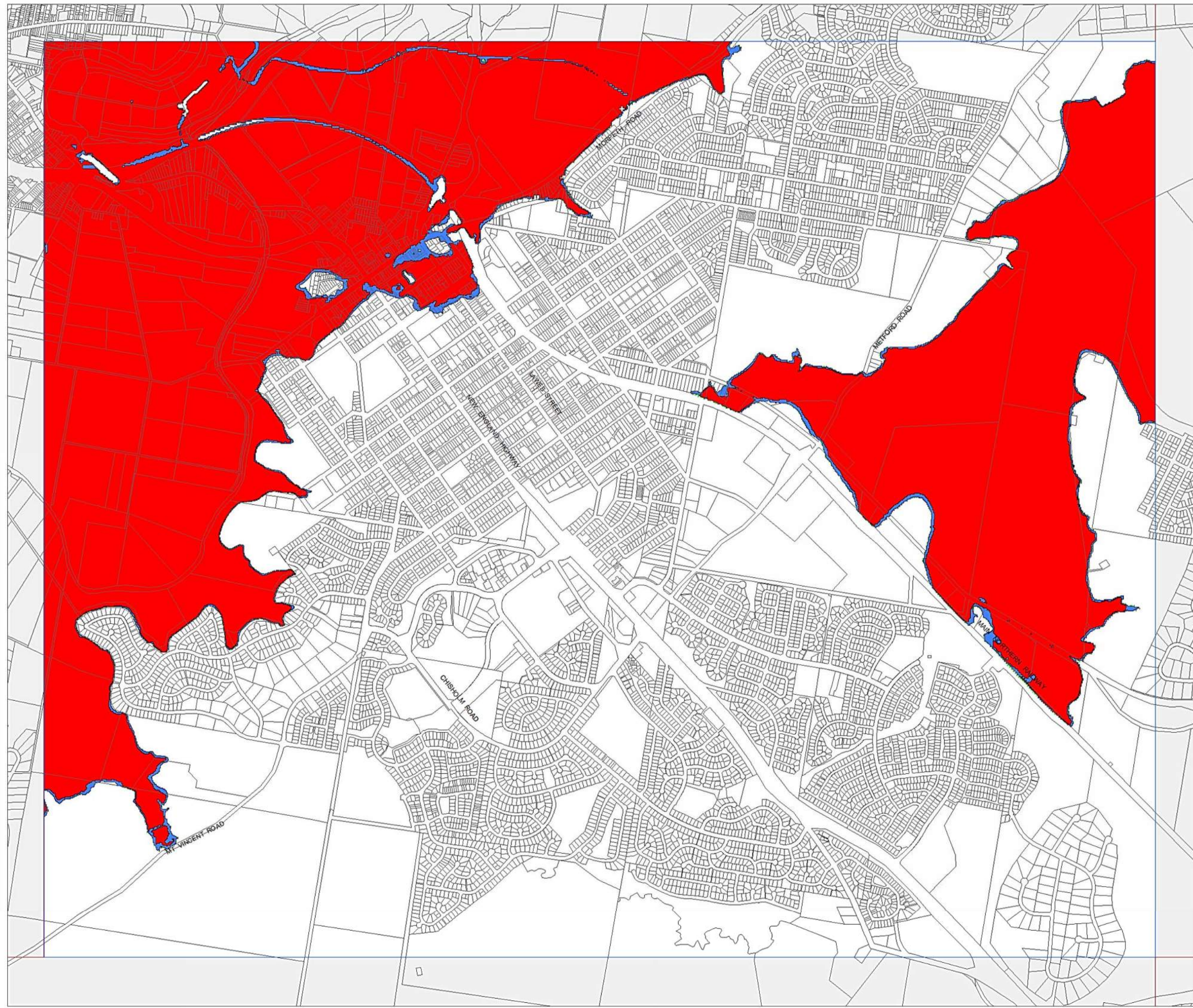
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 004D**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastral**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Depth)\_FLD\_004D\_020\_20140611





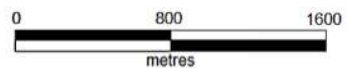
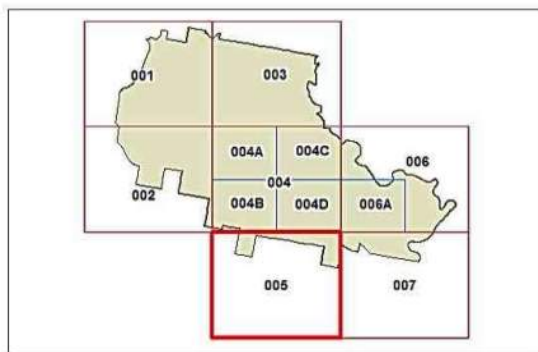
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 005**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Depth)\_FLD\_005\_040\_20140611





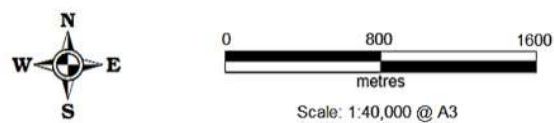
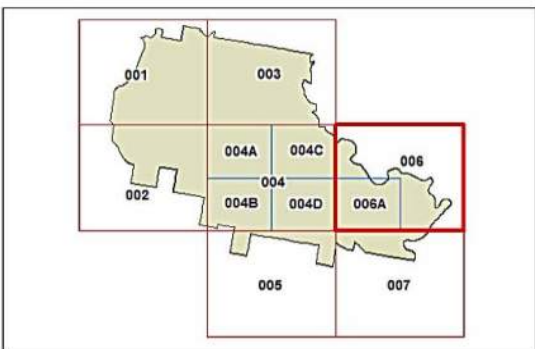
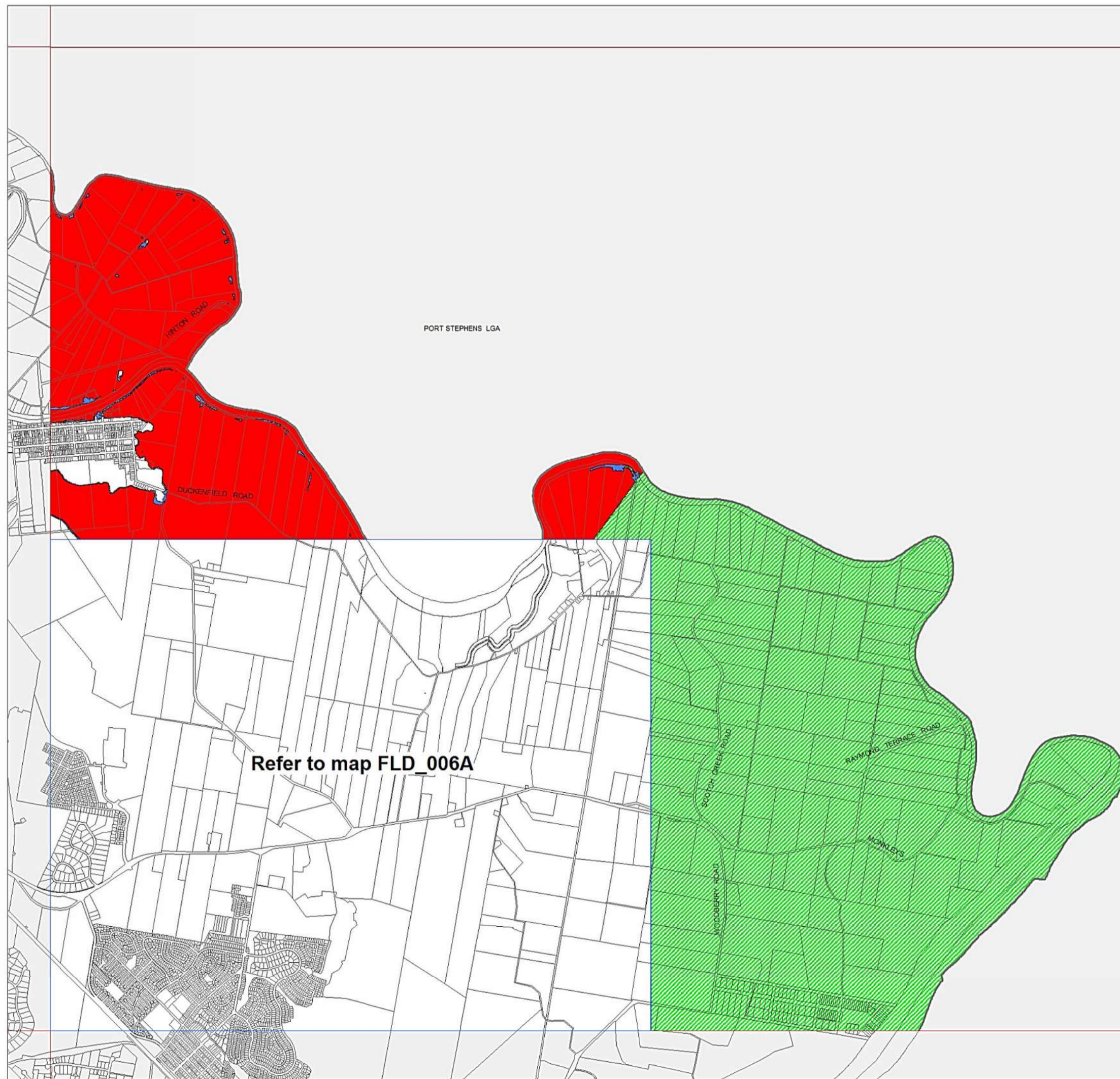
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Depth\_Sheet 006

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

### Cadastre

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council







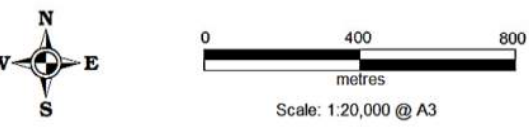
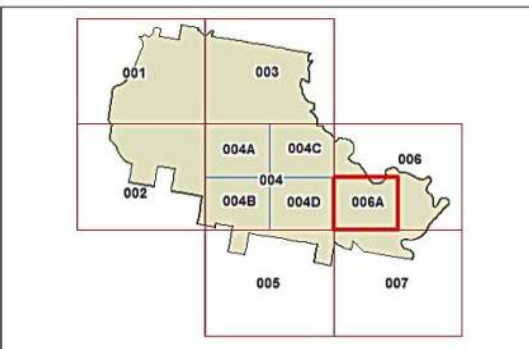
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 006A**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Depth)\_FLD\_006A\_020\_20140611







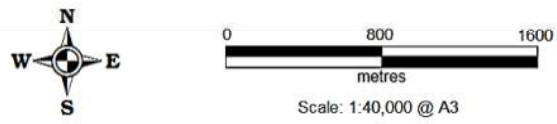
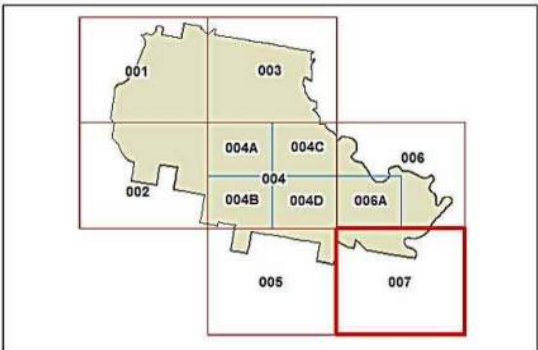
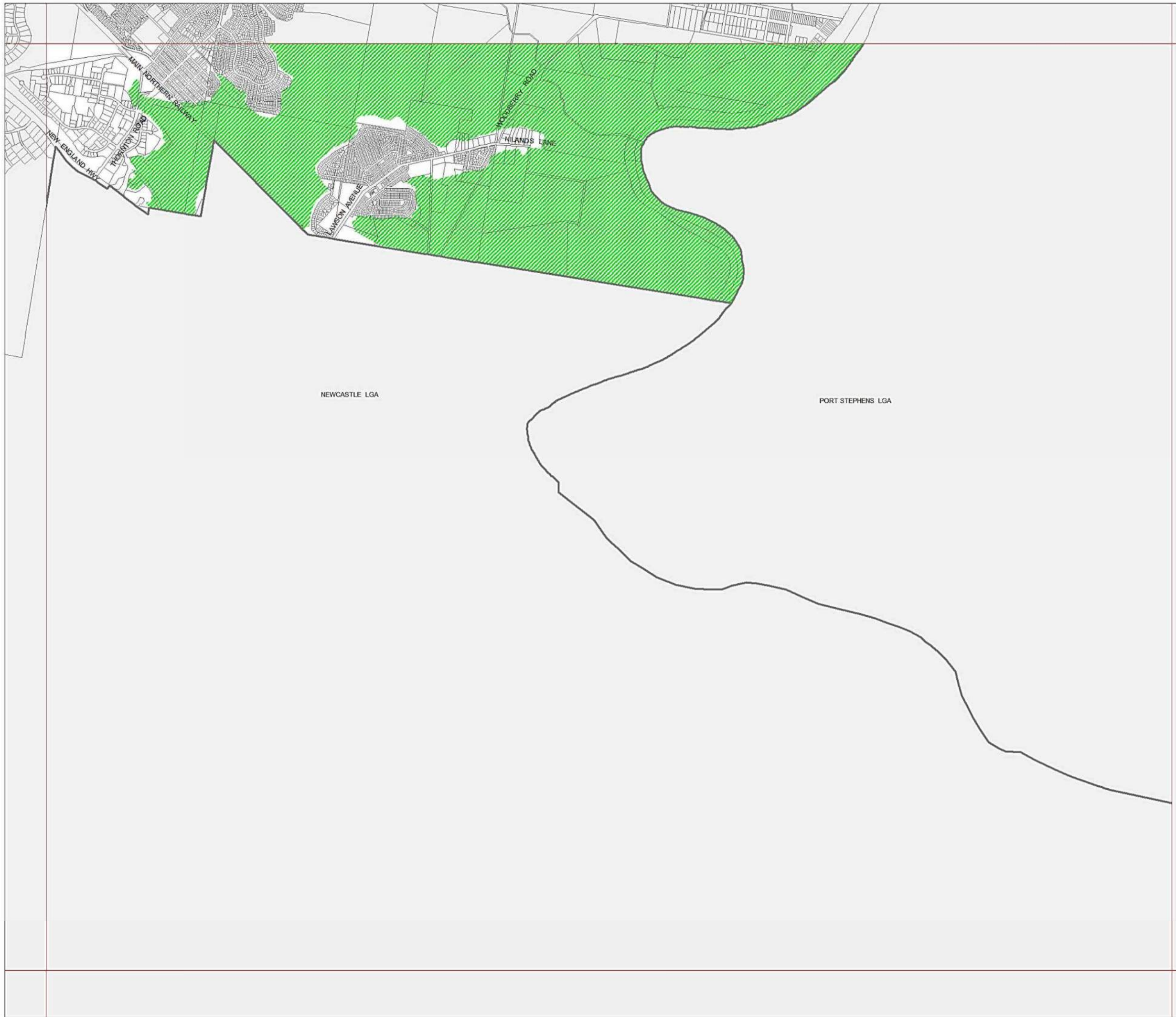
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Depth\_Sheet 007**

- Depth less than 0.5 metres
- Depth greater than 0.5 metres
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Depth)\_FLD\_007\_040\_20140611

### 4.3 Flood Velocity Map Series

Flood Velocity Maps show the following velocity scenarios as they apply in the 1:100 ARI flood event:

1. Velocities less than 0.5 metres per second (shown in blue); and
2. Velocities greater than 0.5 metres per second (shown in red).

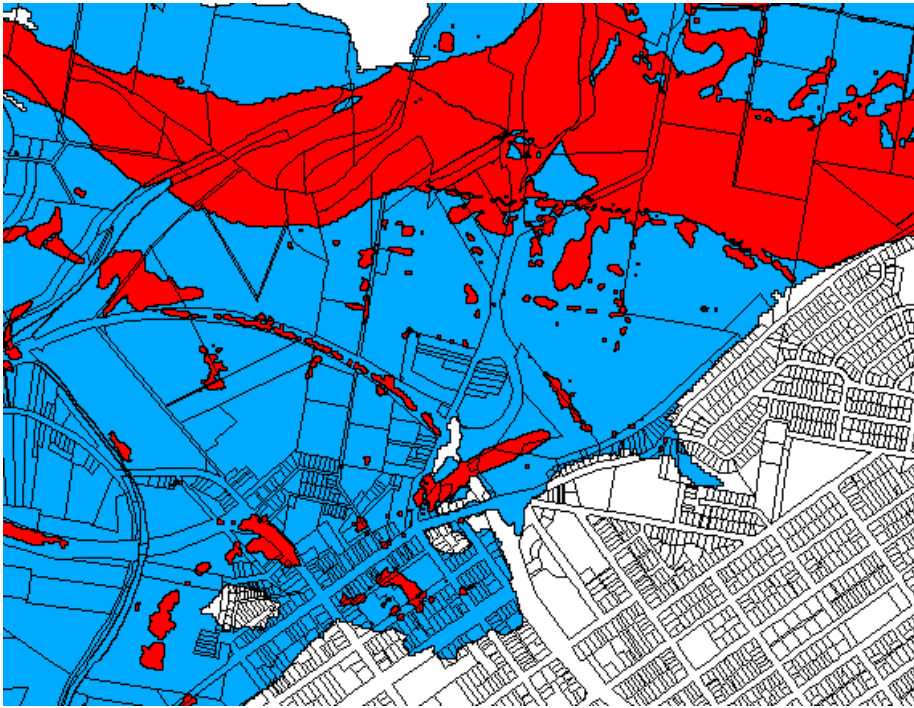


Figure 5: Example of flood velocity mapping.





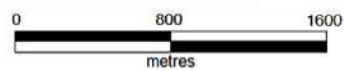
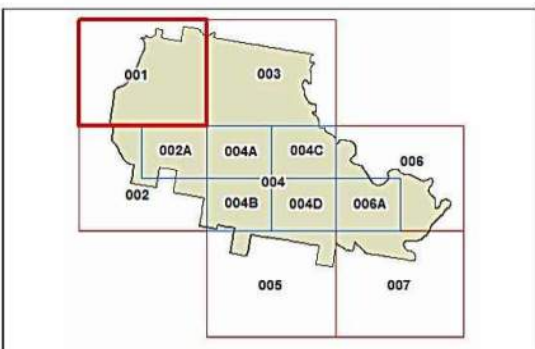
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Velocity\_Sheet 001

- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

### Cadastre

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council

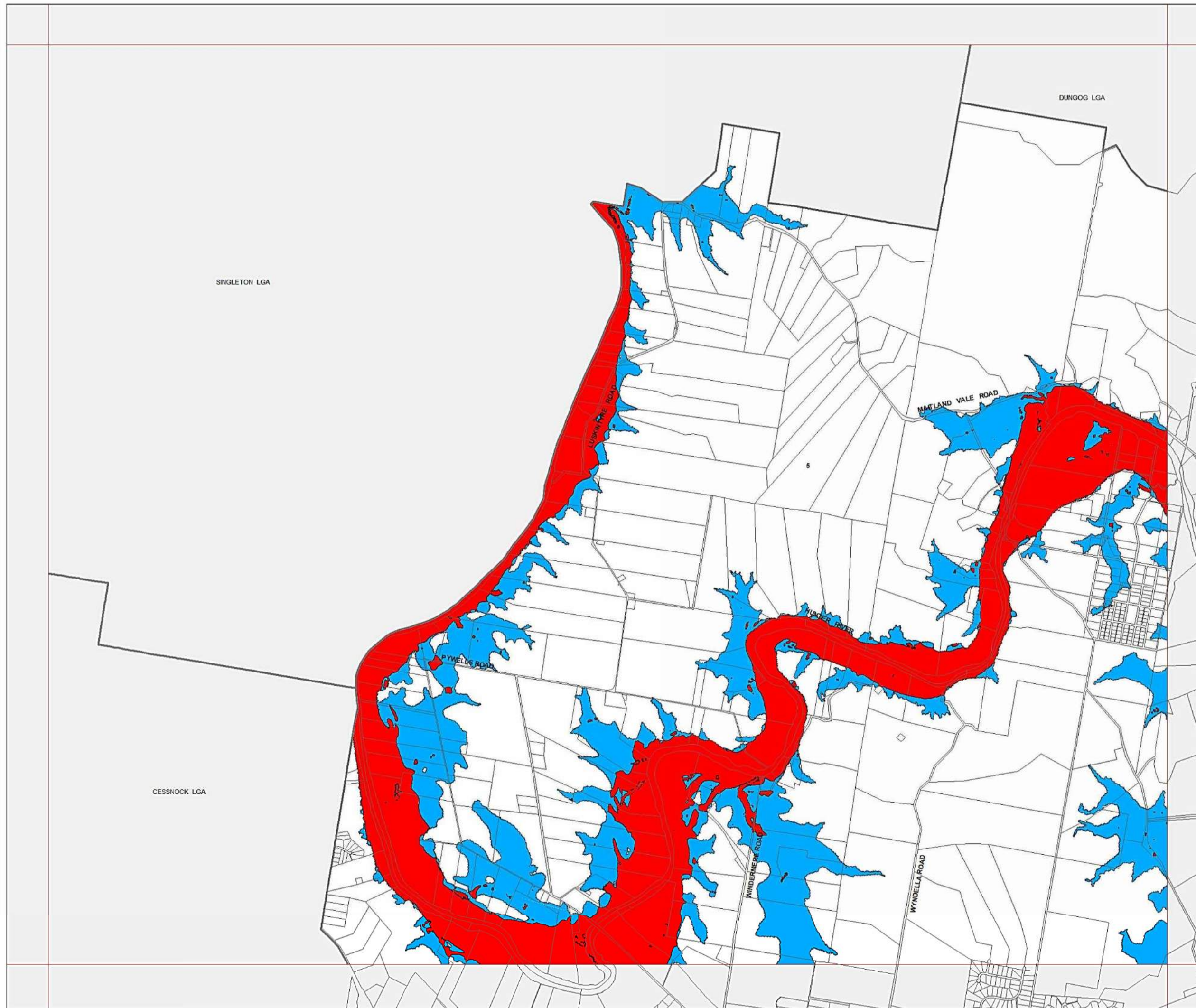


Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Velocity)\_FLD\_001\_040\_20140611







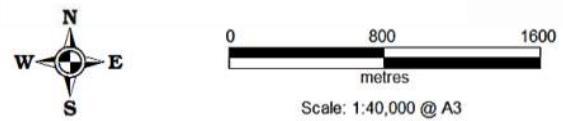
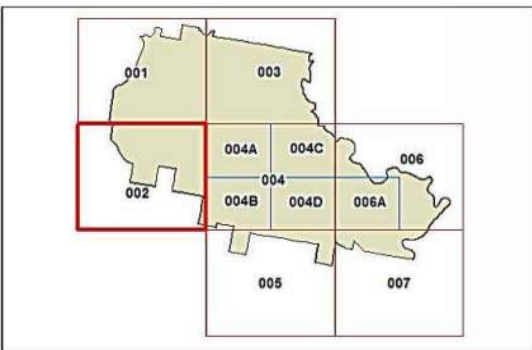
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Velocity\_Sheet 002**

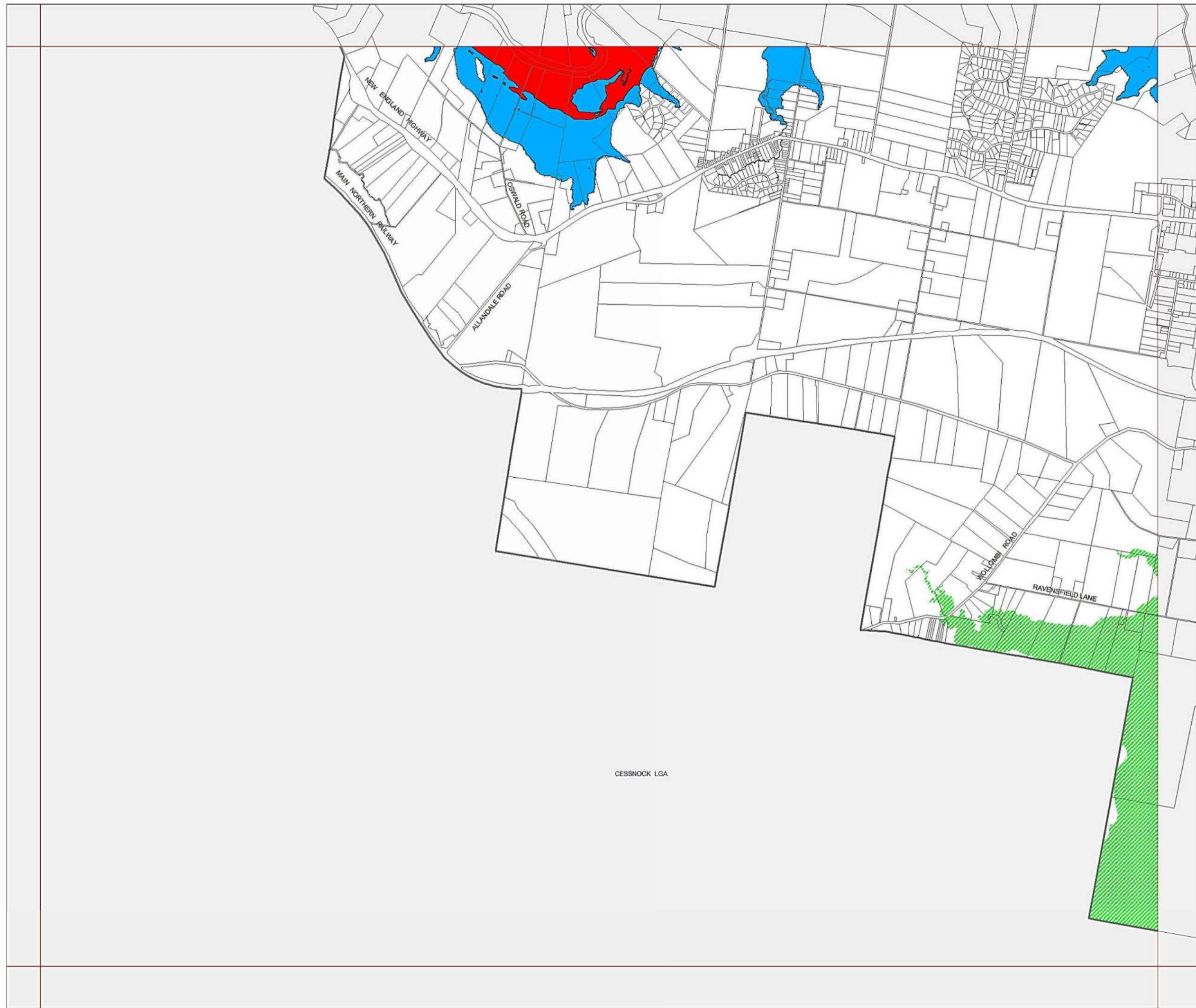
- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_002\_040\_20140611







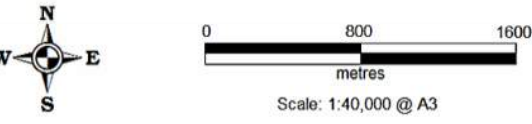
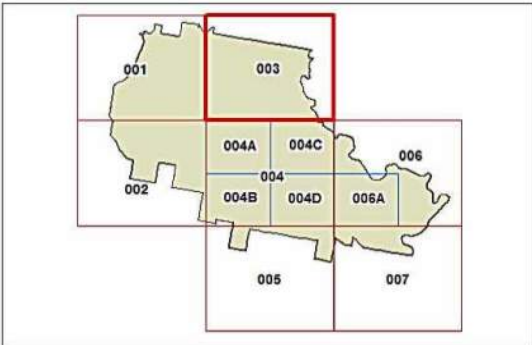
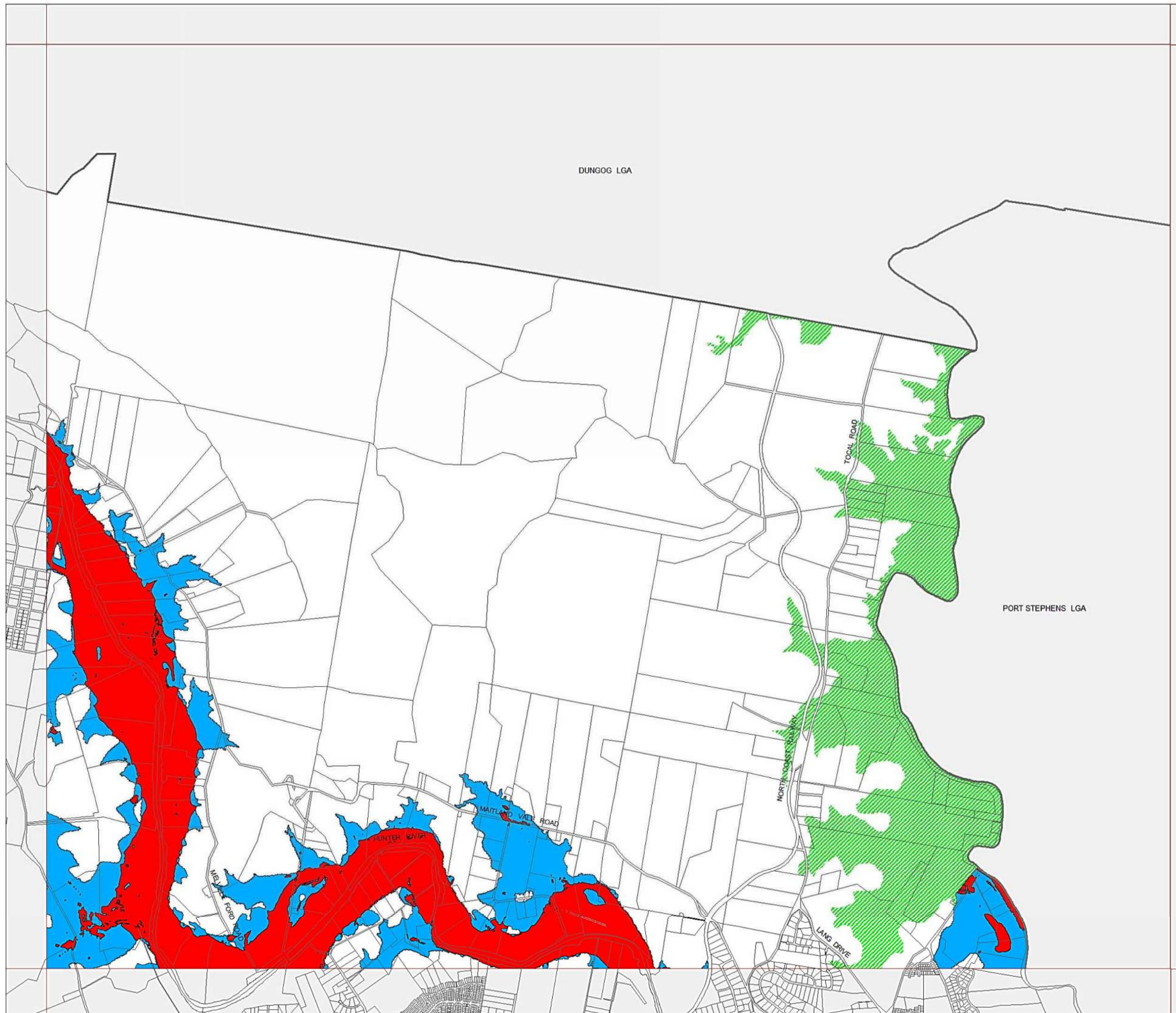
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Velocity\_Sheet 003**

- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastral**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_003\_040\_20140611





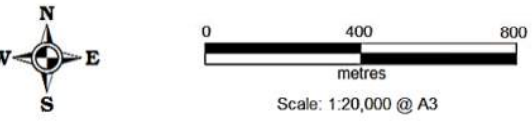
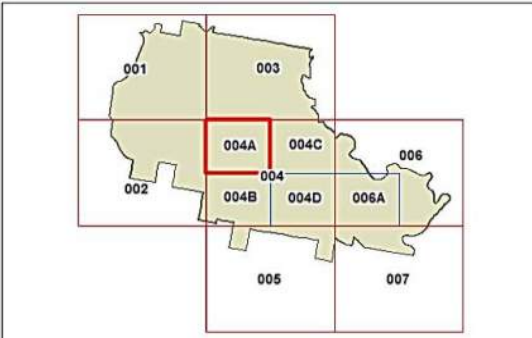
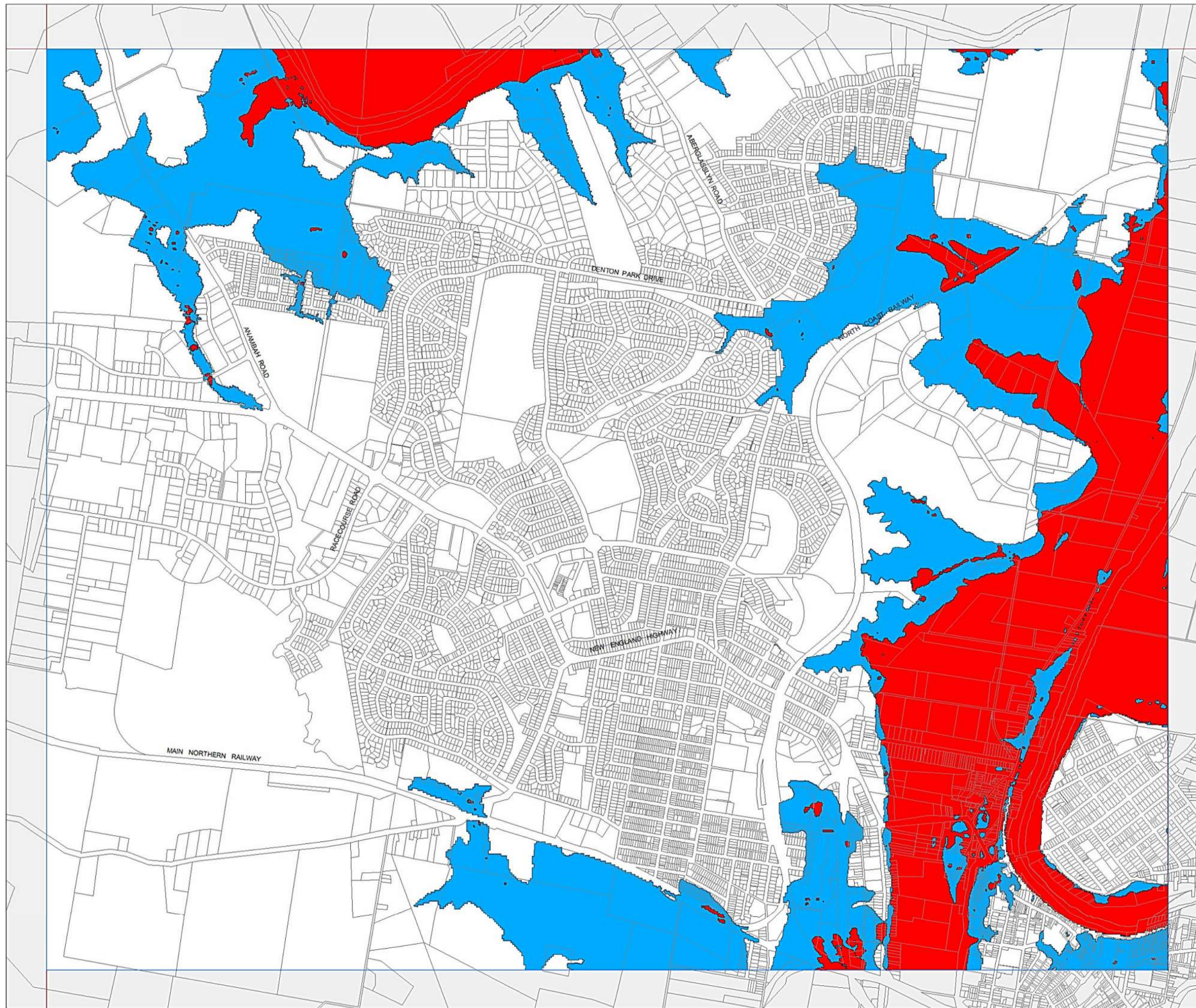
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Velocity\_Sheet 004A

- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

### Cadastre

Base data 03/03/1997 © NSW LPMA  
Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_004A\_020\_20140611





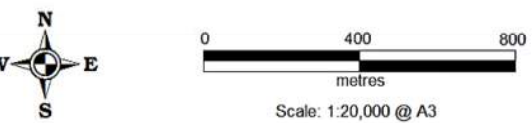
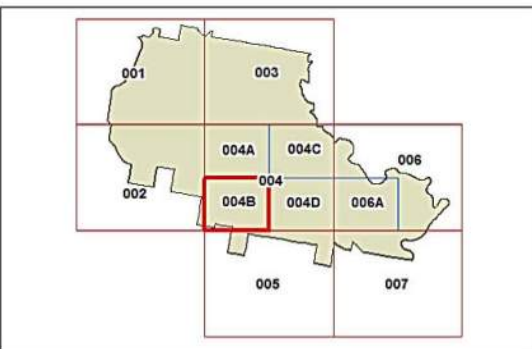
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Velocity\_Sheet 004B**

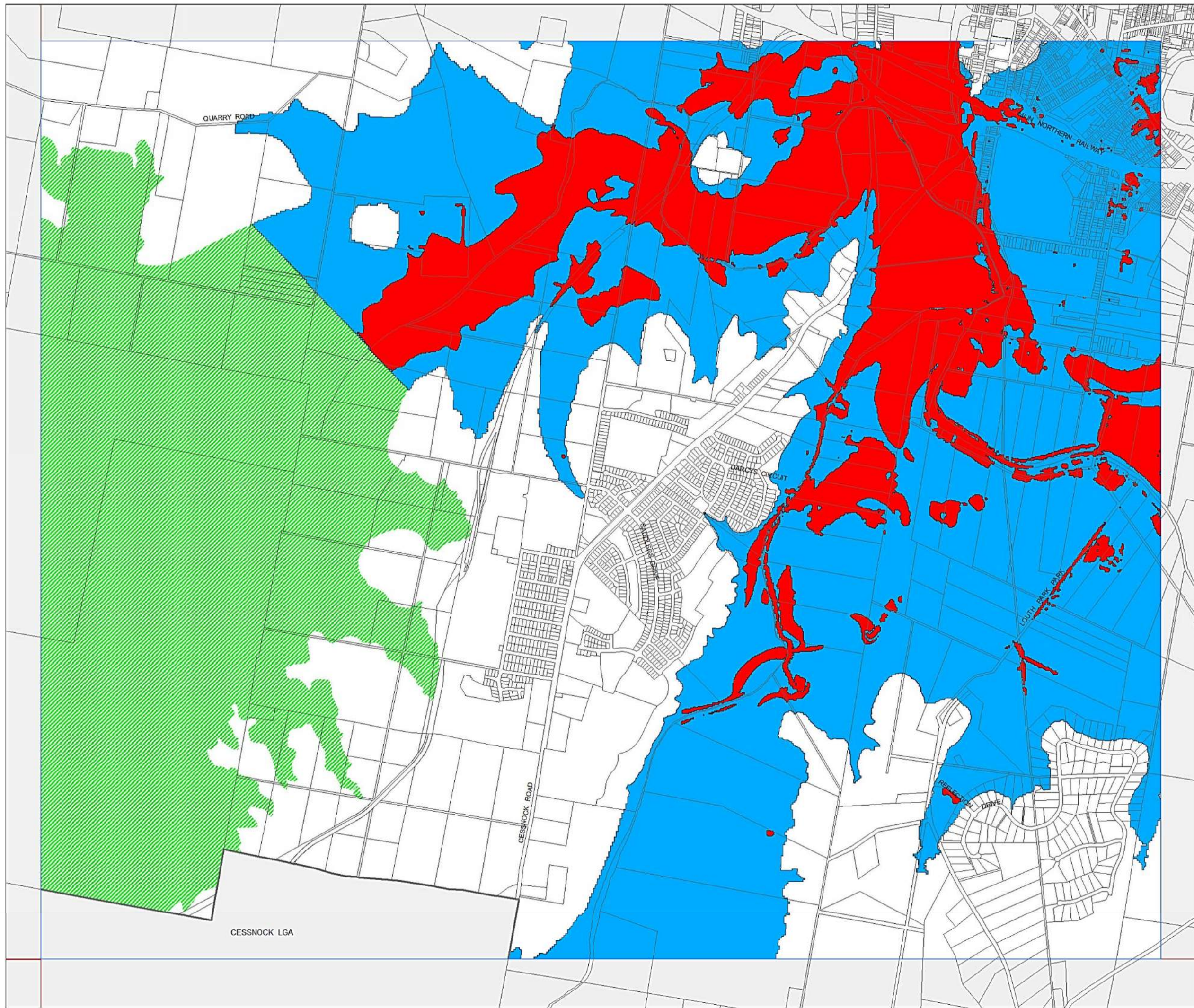
- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_004B\_020\_20140611







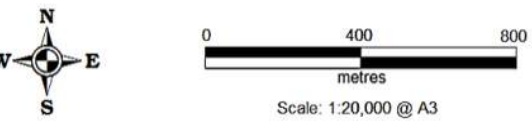
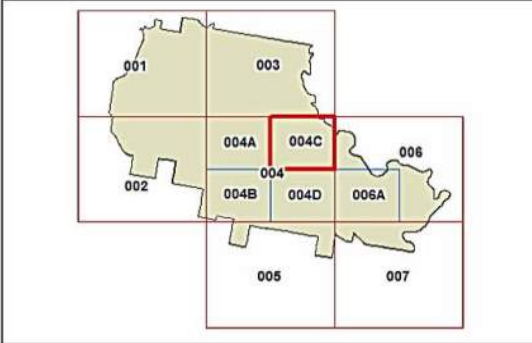
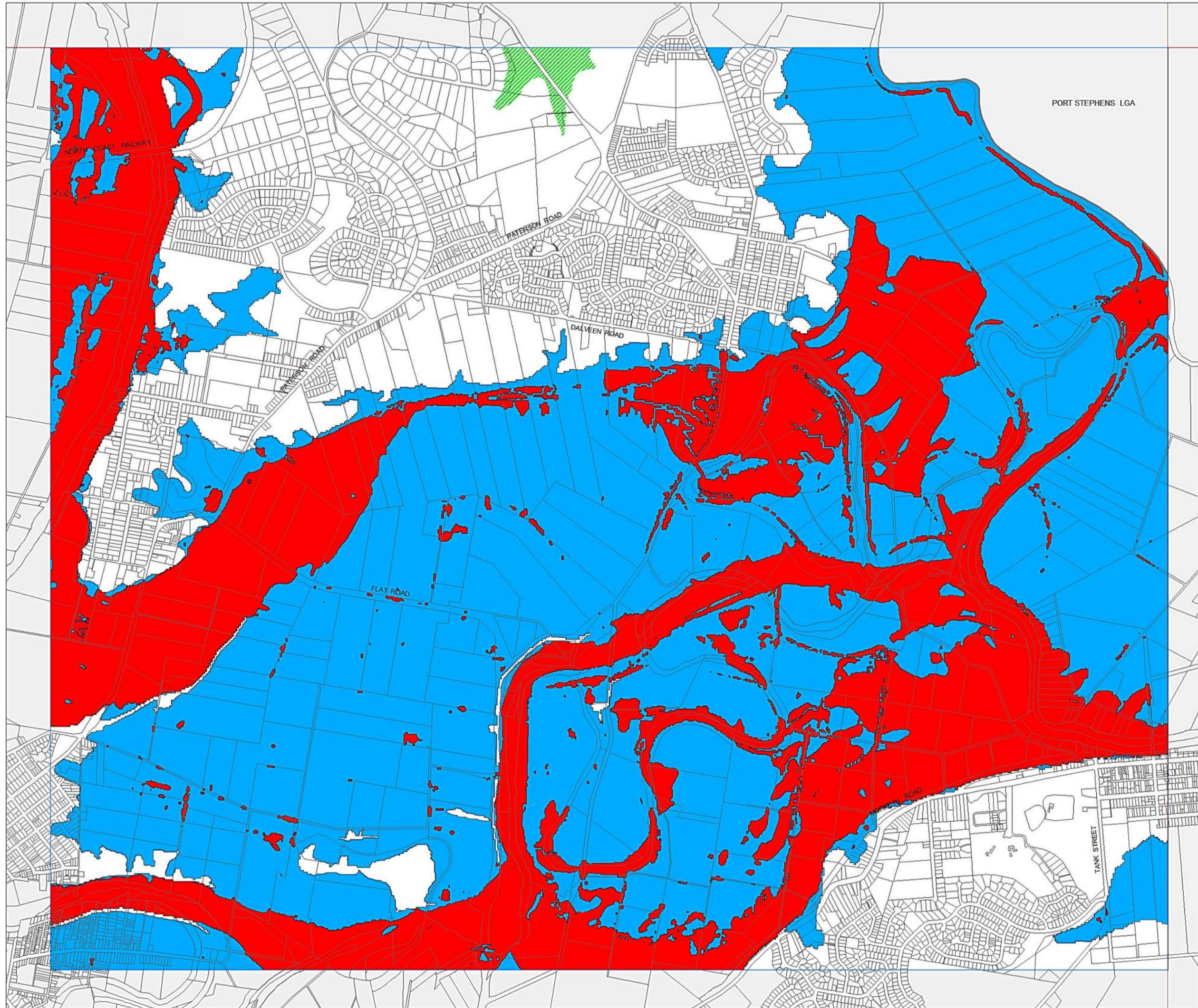
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Velocity\_Sheet 004C

- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastral**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_004C\_020\_20140611





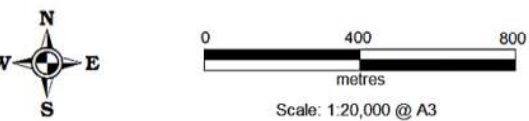
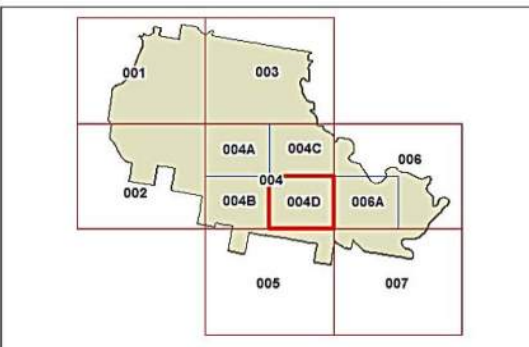
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Velocity\_Sheet 004D

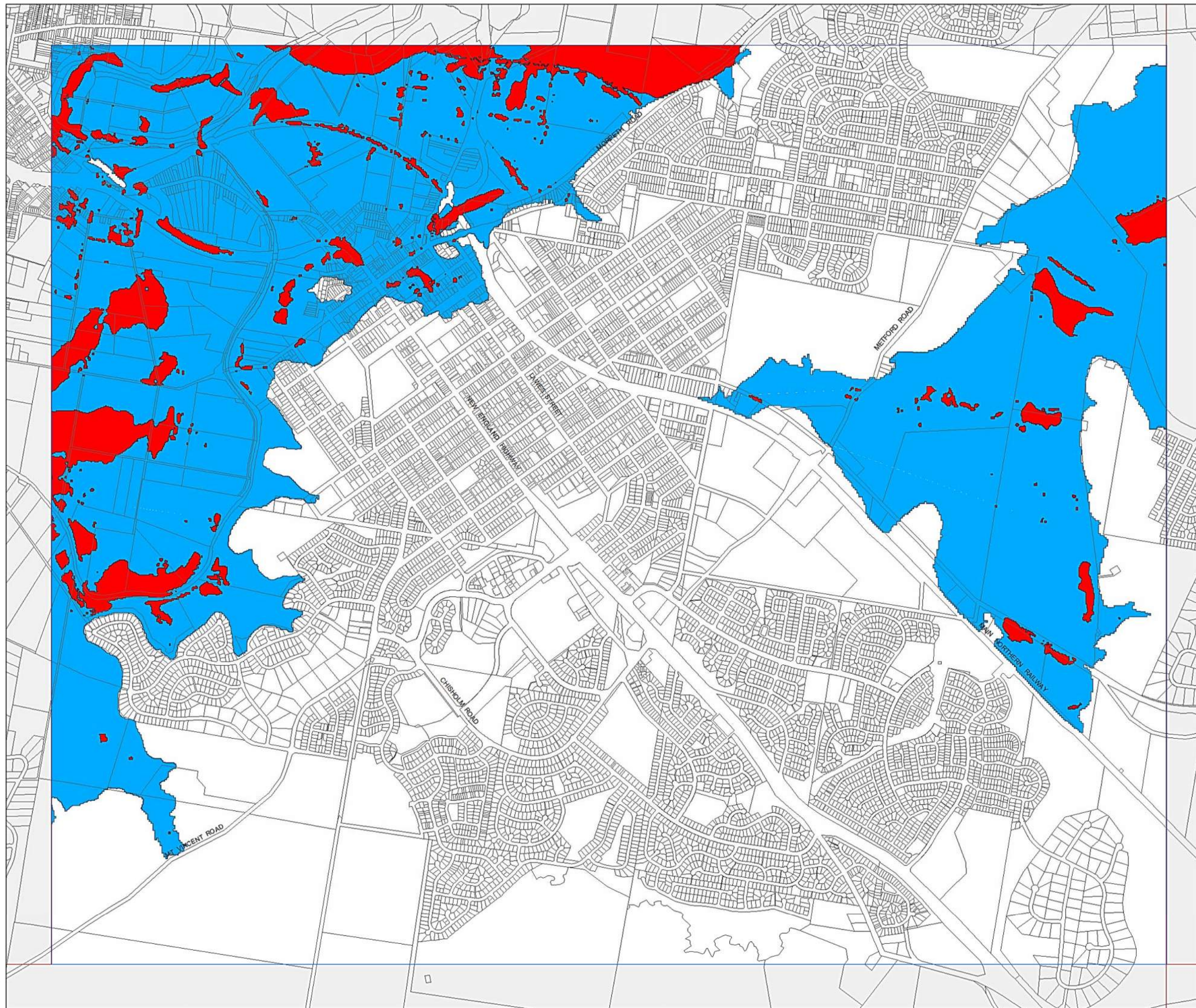
- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_004D\_020\_20140611







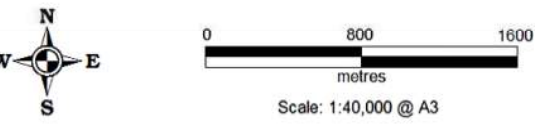
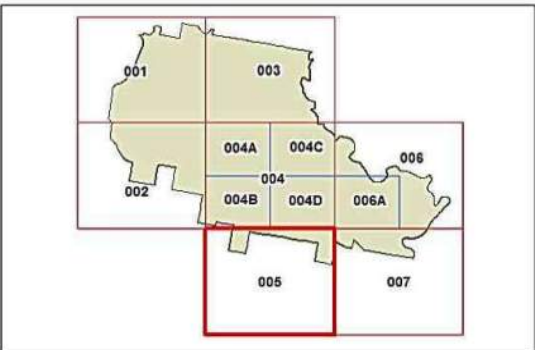
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Velocity\_Sheet 005**

- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_005\_040\_20140611







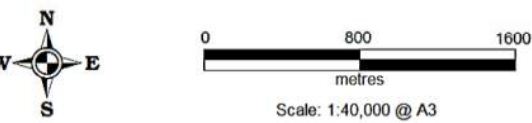
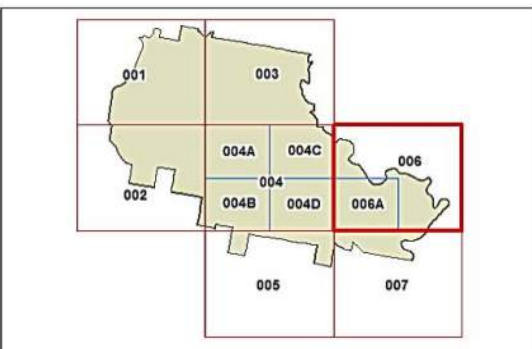
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Velocity\_Sheet 006

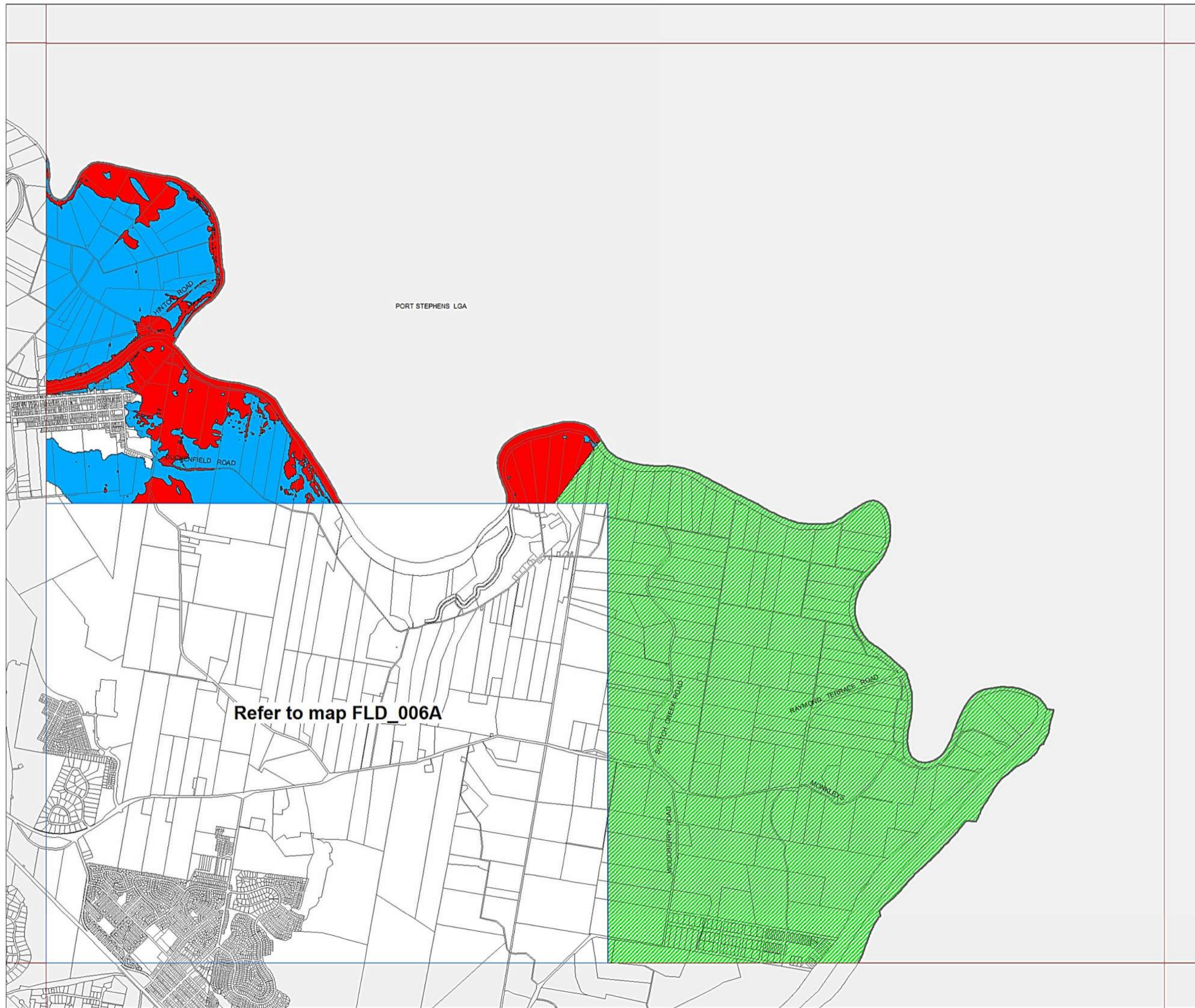
- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

**Cadastral**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Velocity)\_FLD\_006\_040\_20140611







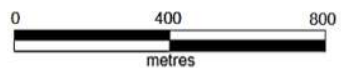
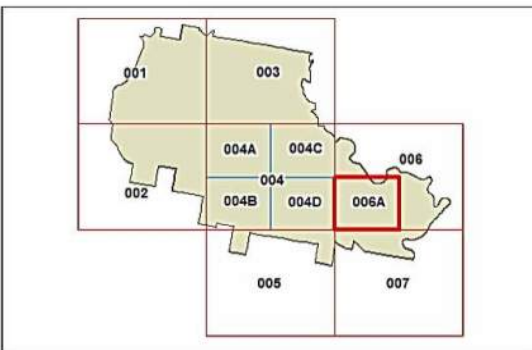
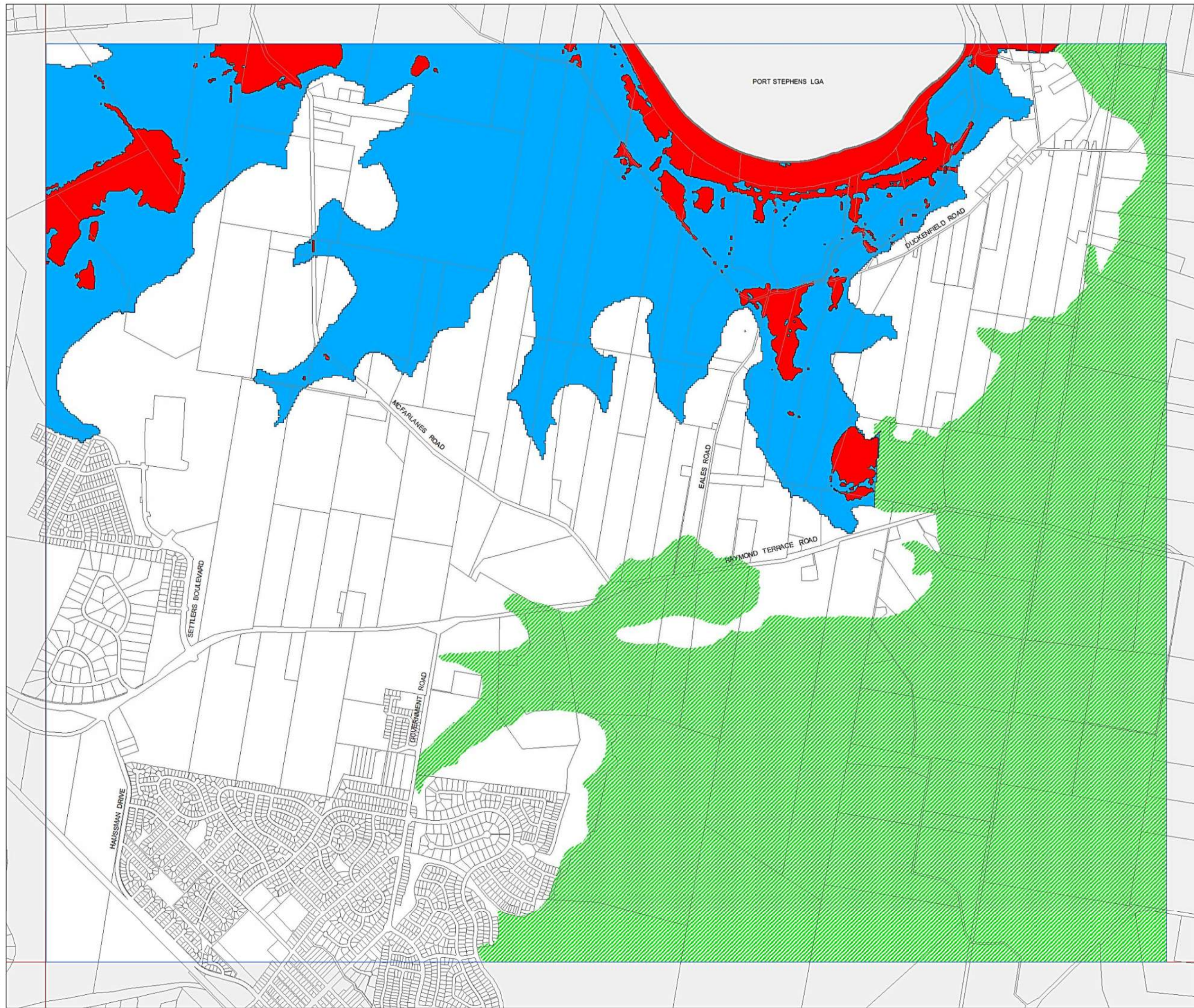
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Depth\_Sheet 006A

- Velocity less than 0.5 metres per second
- Velocity greater than 0.5 metres per second
- Subject to Further Investigation

### Cadastral

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Scale: 1:20,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:




Floodplain Management DCP (Velocity)\_FLD\_006A\_020\_20140611







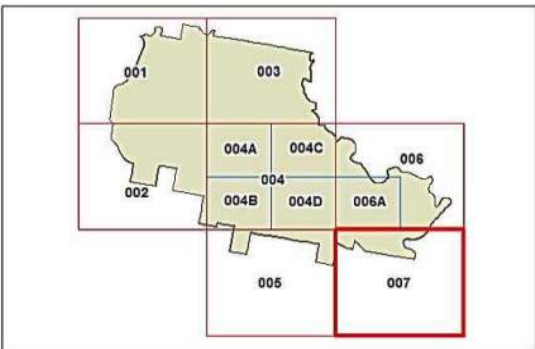
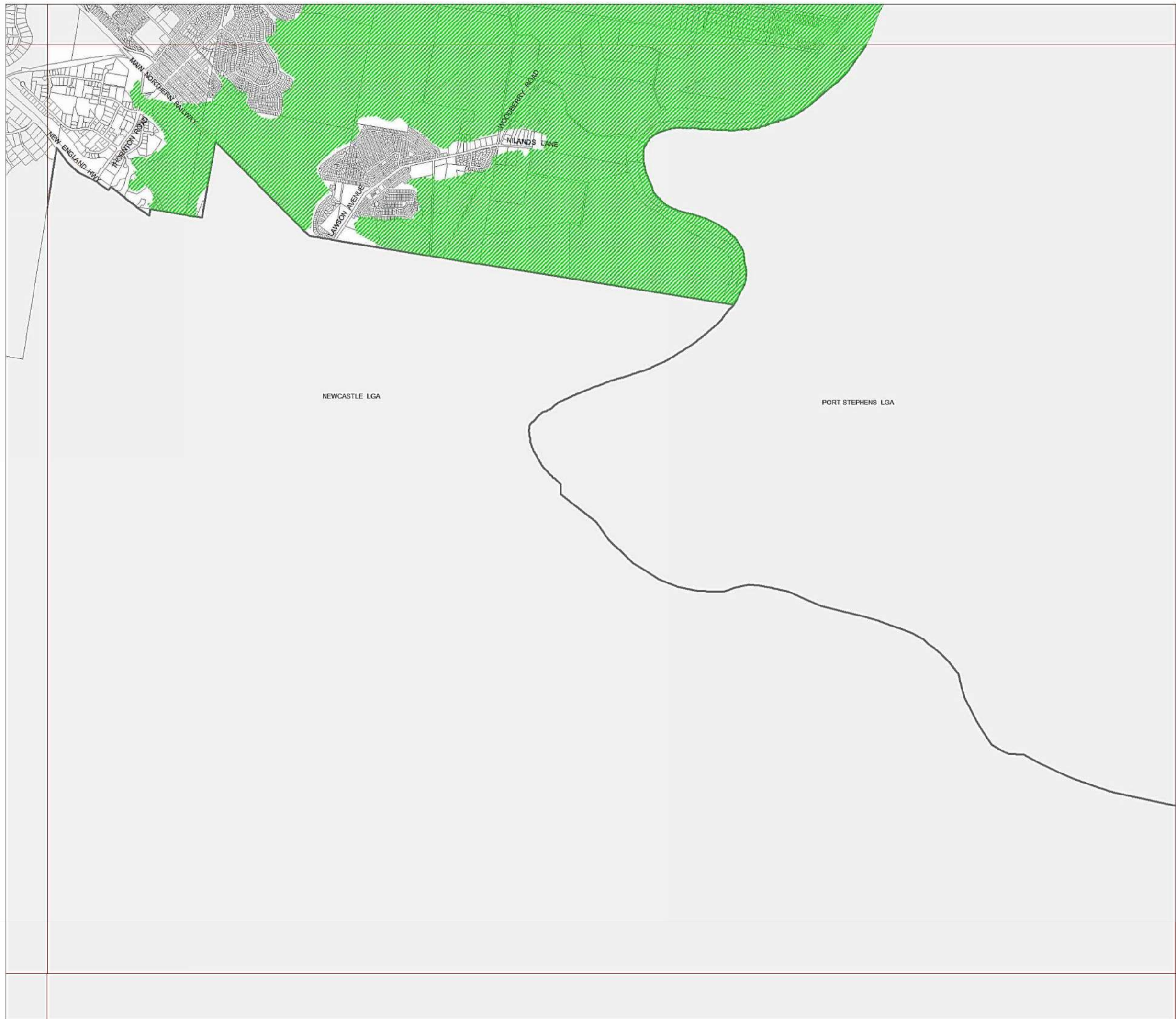
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Velocity\_Sheet 007

-  Velocity less than 0.5 metres per second
-  Velocity greater than 0.5 metres per second
-  Subject to Further Investigation

### Cadastre

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council





#### 4.4 Hydraulic Category Maps

Hydraulic Category Maps provide an overview of the various hydraulic categories as they apply in the 1:100 ARI flood event. There is no technical definition of hydraulic categorisation that would be suitable for all catchments, and different approaches must be used in different areas, based on the specific features of the study catchment in question. Where a proponent holds the view that the hydraulic categorisation differs from that shown on the relevant DCP map then the proponent will be responsible for having a suitably qualified consultant undertake the appropriate modelling investigations/analysis to support this view.

The following hydraulic categorisations have been mapped:

- Flood Fringe comprises areas outside the Floodway where peak depth < 1.5 m (shown blue);
- Flood Storage comprises areas outside the Floodway where peak depth > 1.5 m (shown yellow); and
- Floodway (shown red) is defined as areas where:
  - the peak value of velocity multiplied by depth ( $V \cdot D$ ) > 1.0 m<sup>2</sup>/s and peak velocity > 0.1 m/s, or
  - peak velocity > 0.8 m/s.

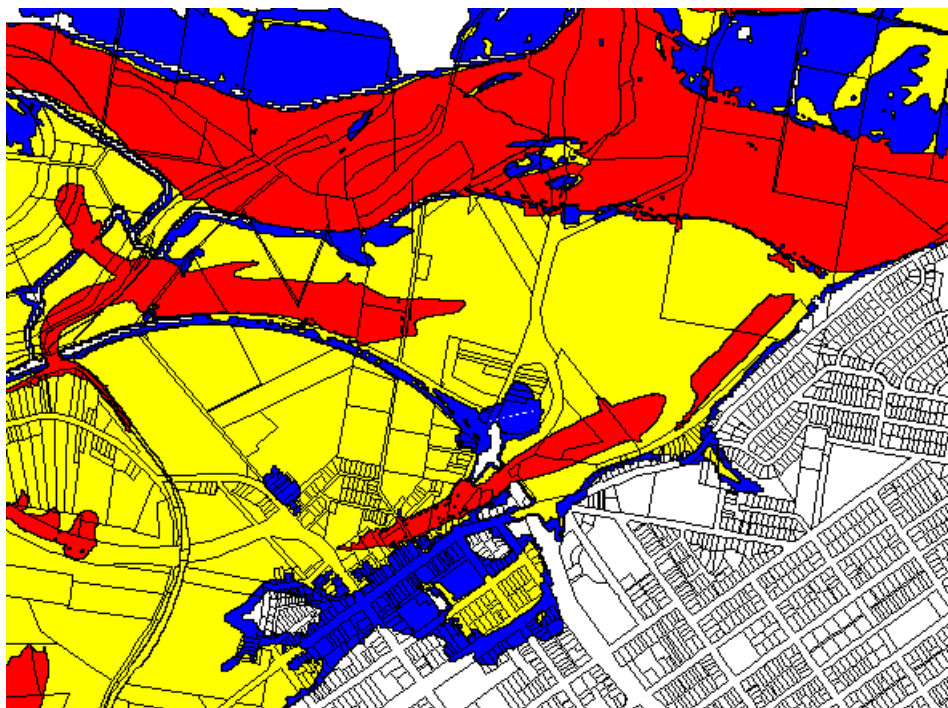


Figure 6: Example hydraulic category mapping.



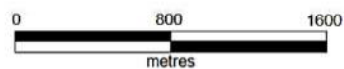
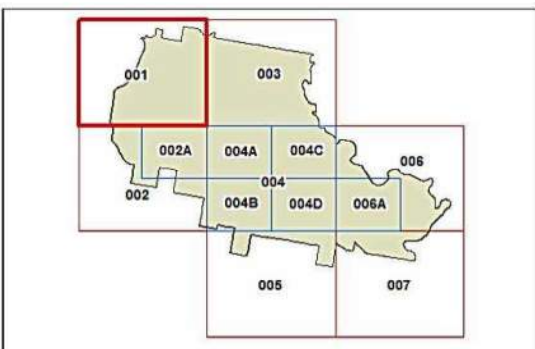
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 001**

- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council

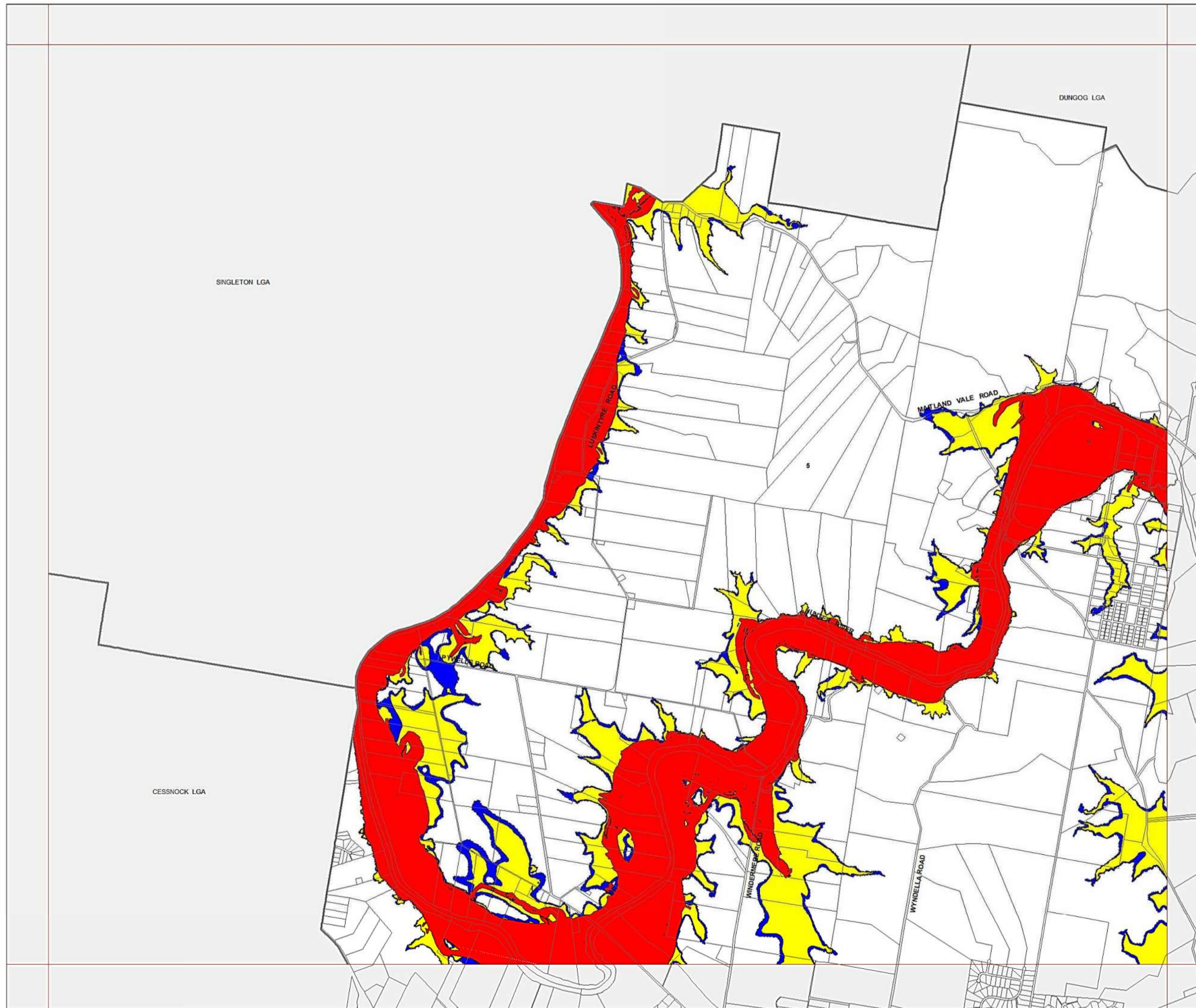


Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Hydraulic Categories)\_FLD\_001\_040\_20140611













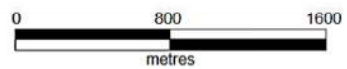
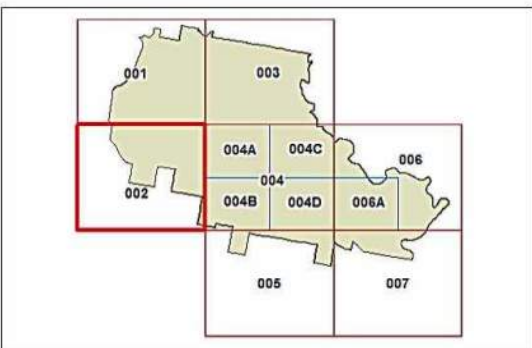
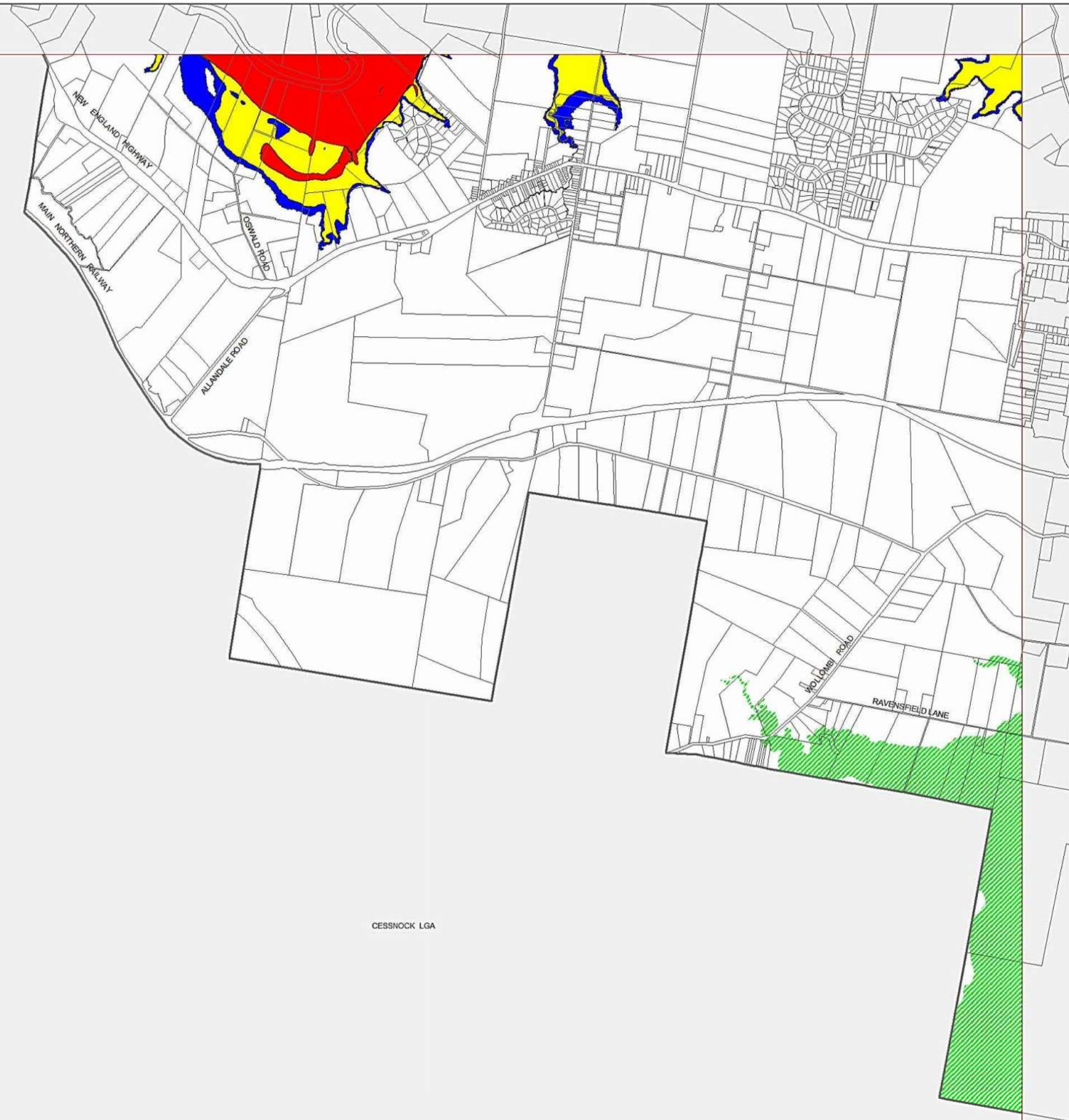
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Hydraulic Categories\_Sheet 002

-  Flood Storage
-  Flood Fringe
-  Floodway
-  Subject to Further Investigation

### Cadastre

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council



Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Hydraulic Categories)\_FLD\_002\_040\_20140611





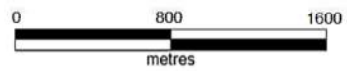
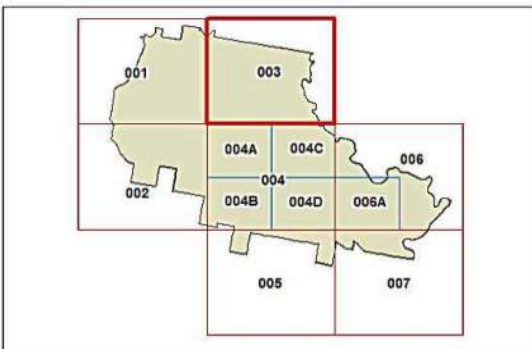
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Hydraulic Categories\_Sheet 003

- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

### Cadastre

Base data 03/03/1997 © NSW LPMA  
Addendum data 01/04/2011 © Maitland City Council

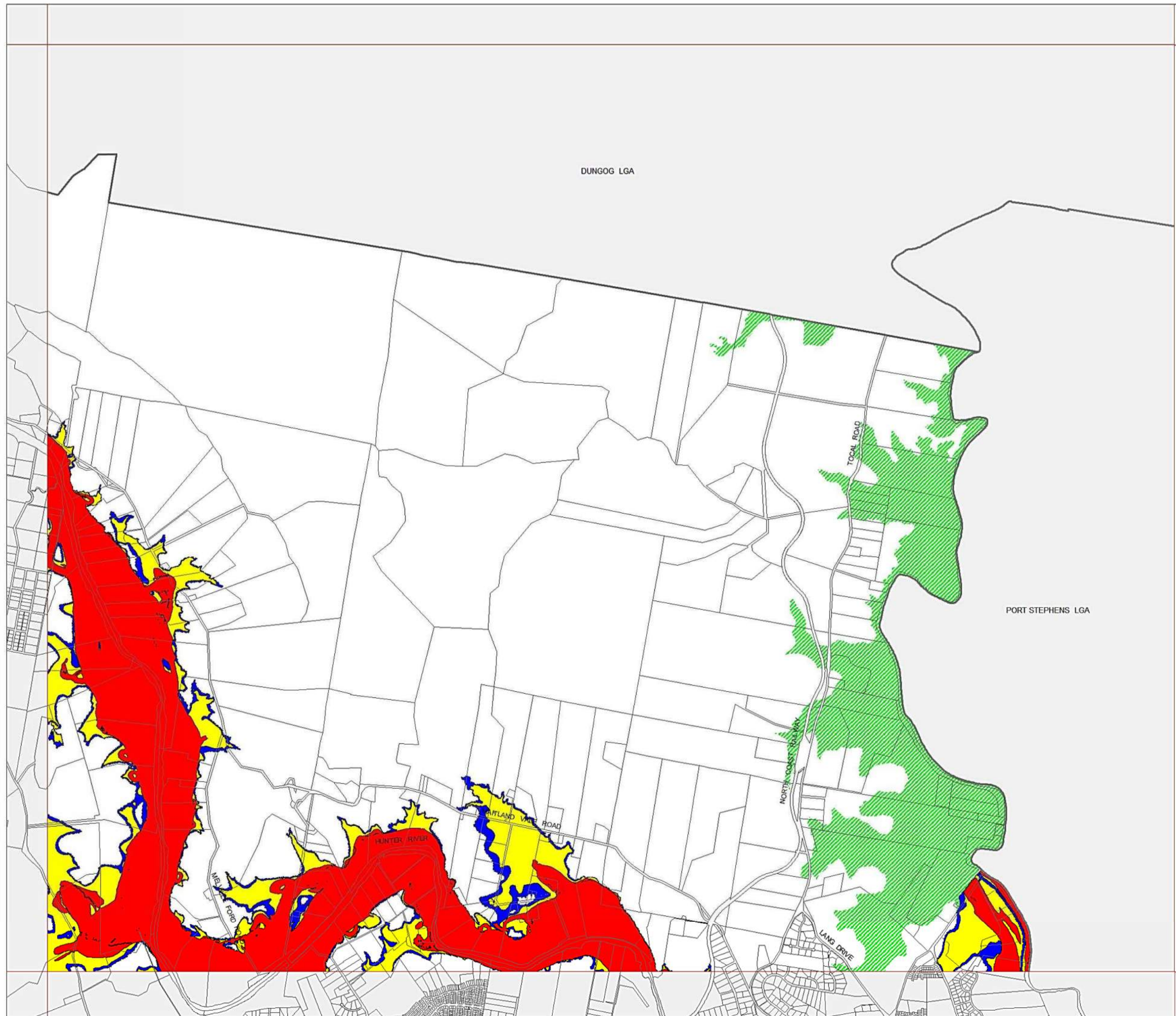


Scale: 1:40,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Hydraulic Categories)\_FLD\_003\_040\_20140611







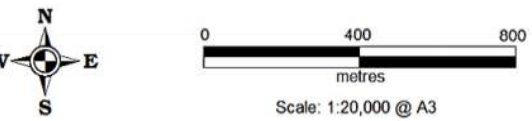
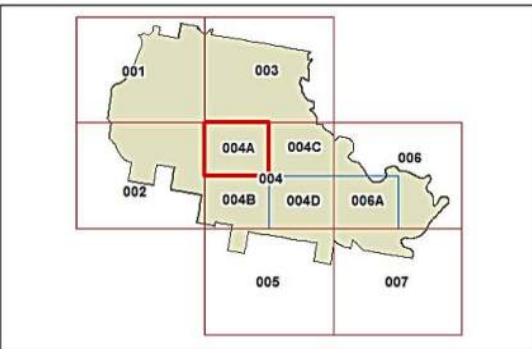
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 004A**

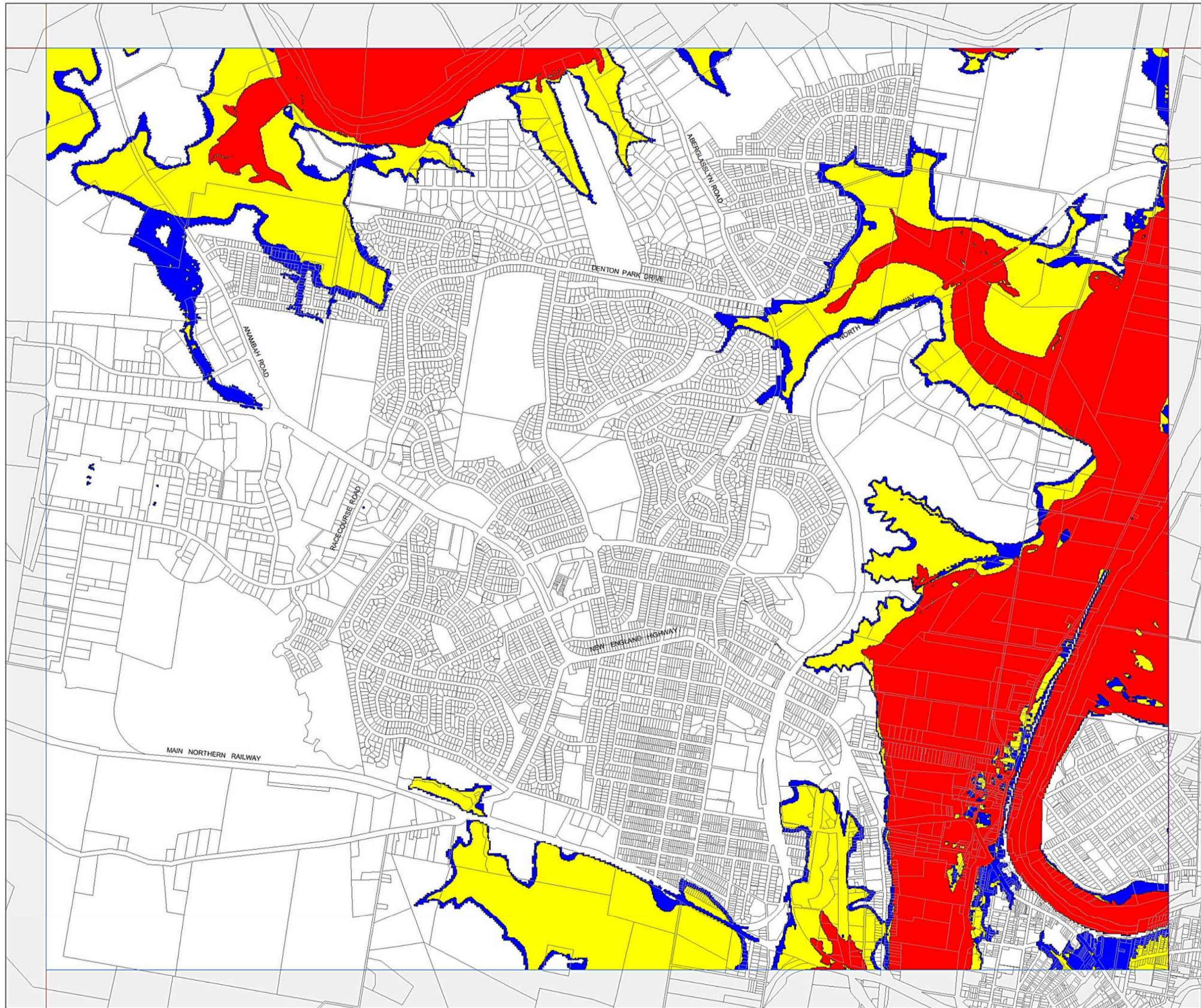
- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hydraulic Categories)\_FLD\_004A\_020\_20140611







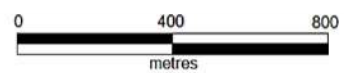
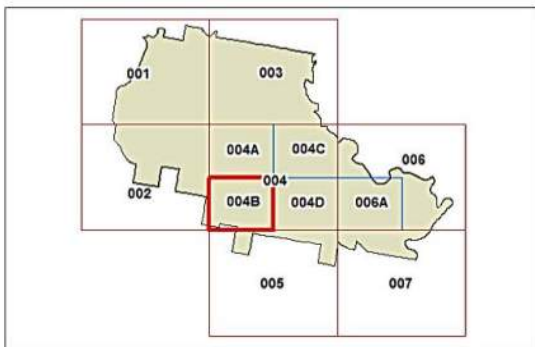
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 004B**

- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**

Base data 03/03/1997 © NSW LPMA  
 Addendum data 01/04/2011 © Maitland City Council

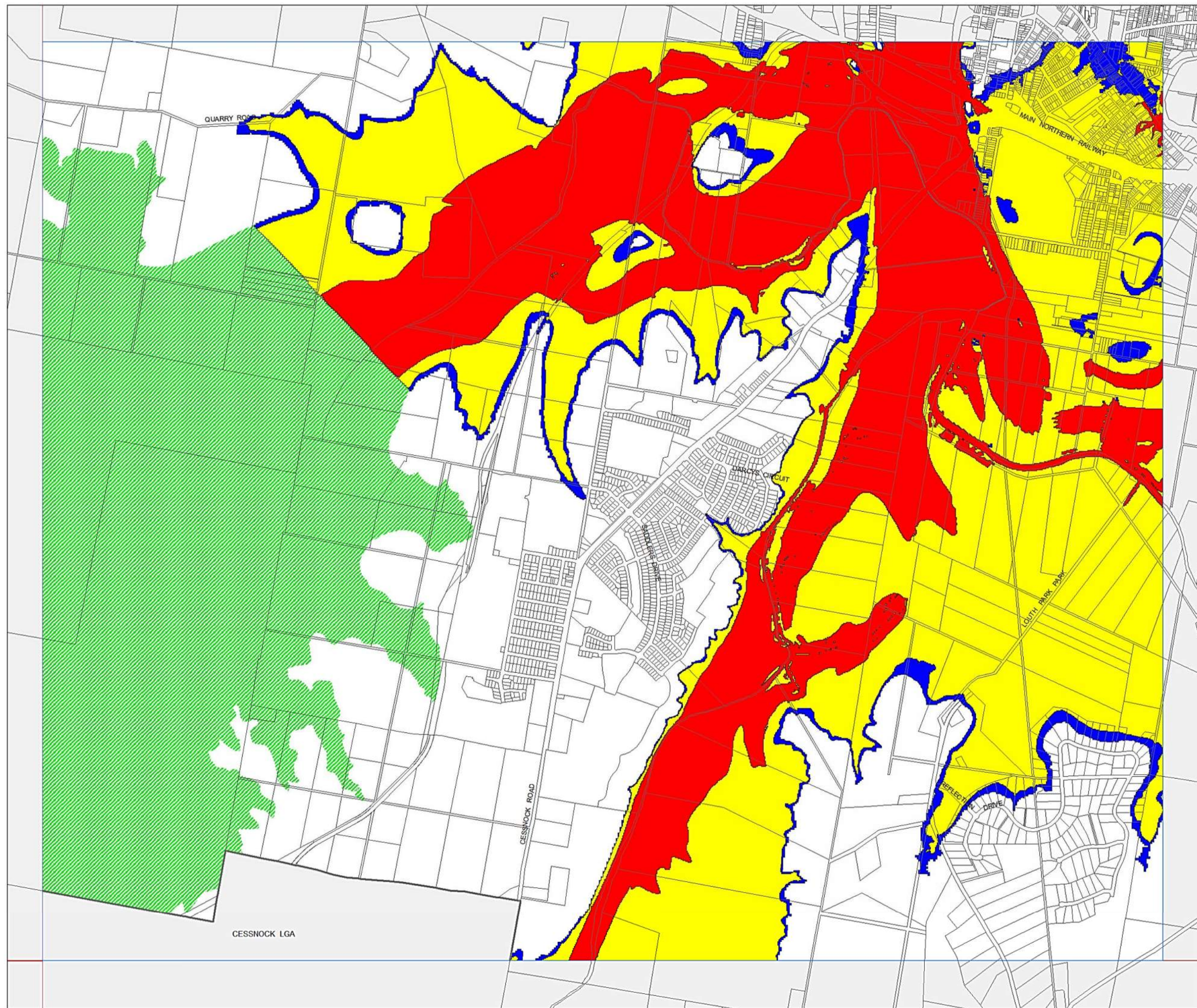


Scale: 1:20,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Hydraulic Categories)\_FLD\_004B\_020\_20140611







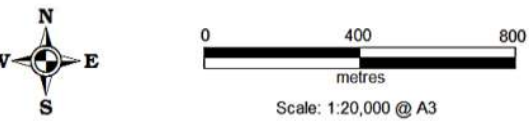
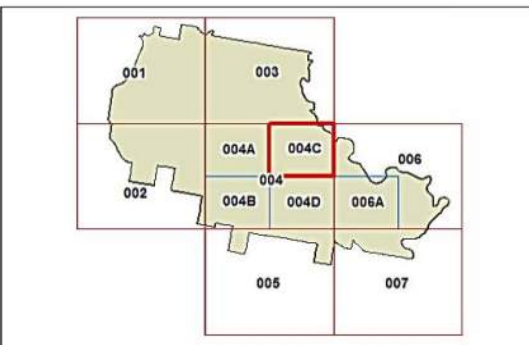
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Hydraulic Categories\_Sheet 004C

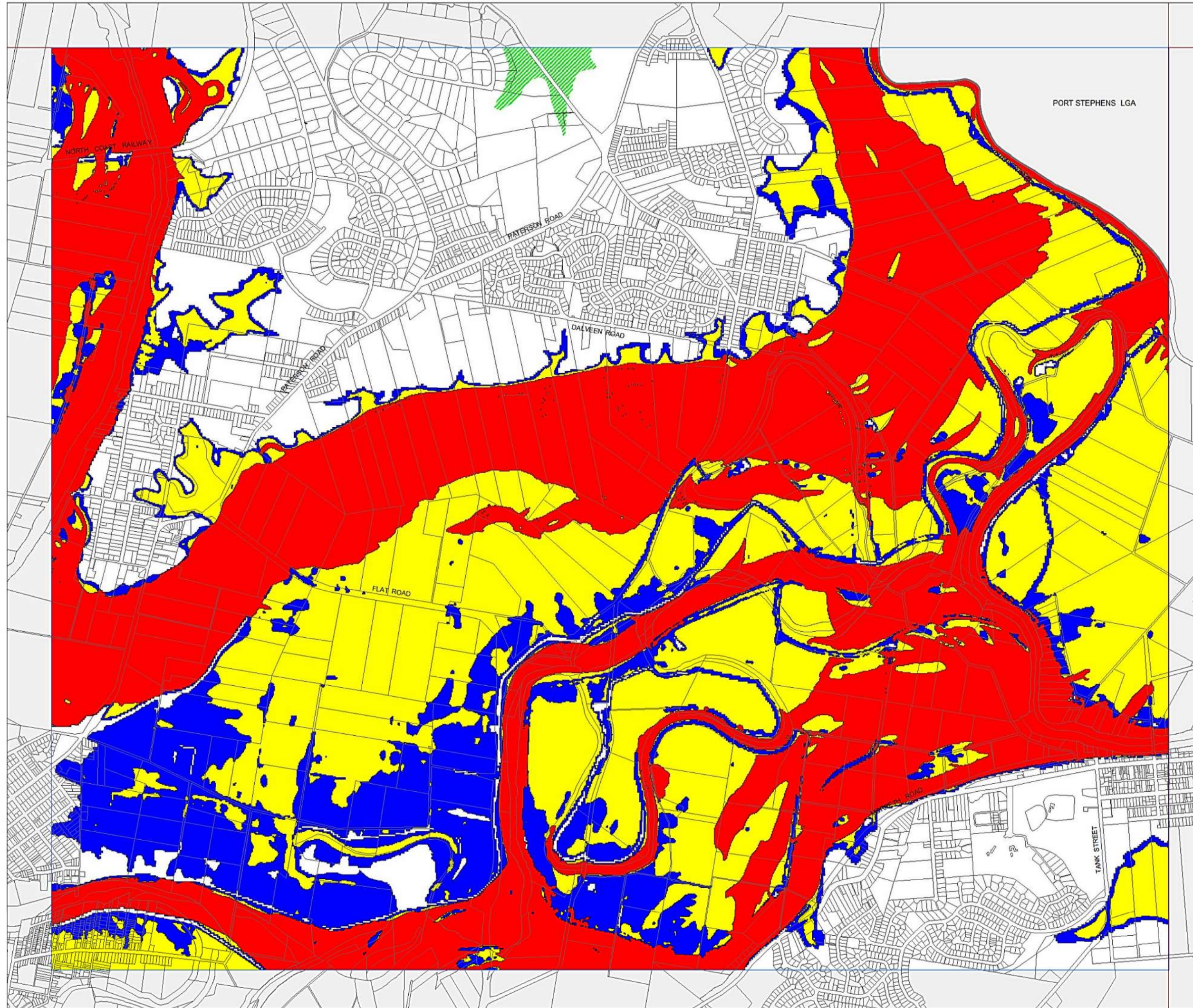
- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**  
 Base data 03/03/1997 © NSW LPMA  
 Addendum data 01/04/2011 © Maitland City Council

PORT STEPHENS LGA



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hydraulic Categories)\_FLD\_004C\_020\_20140611







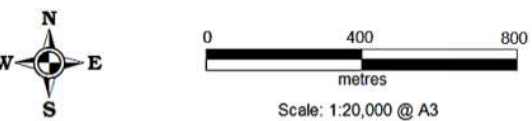
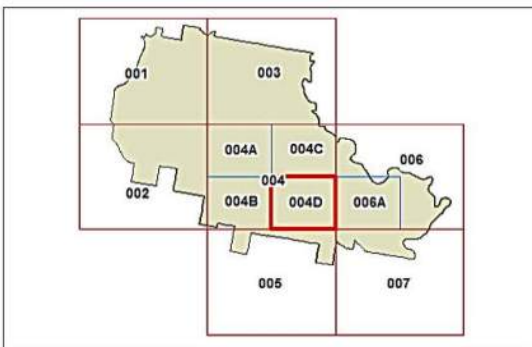
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 004D**

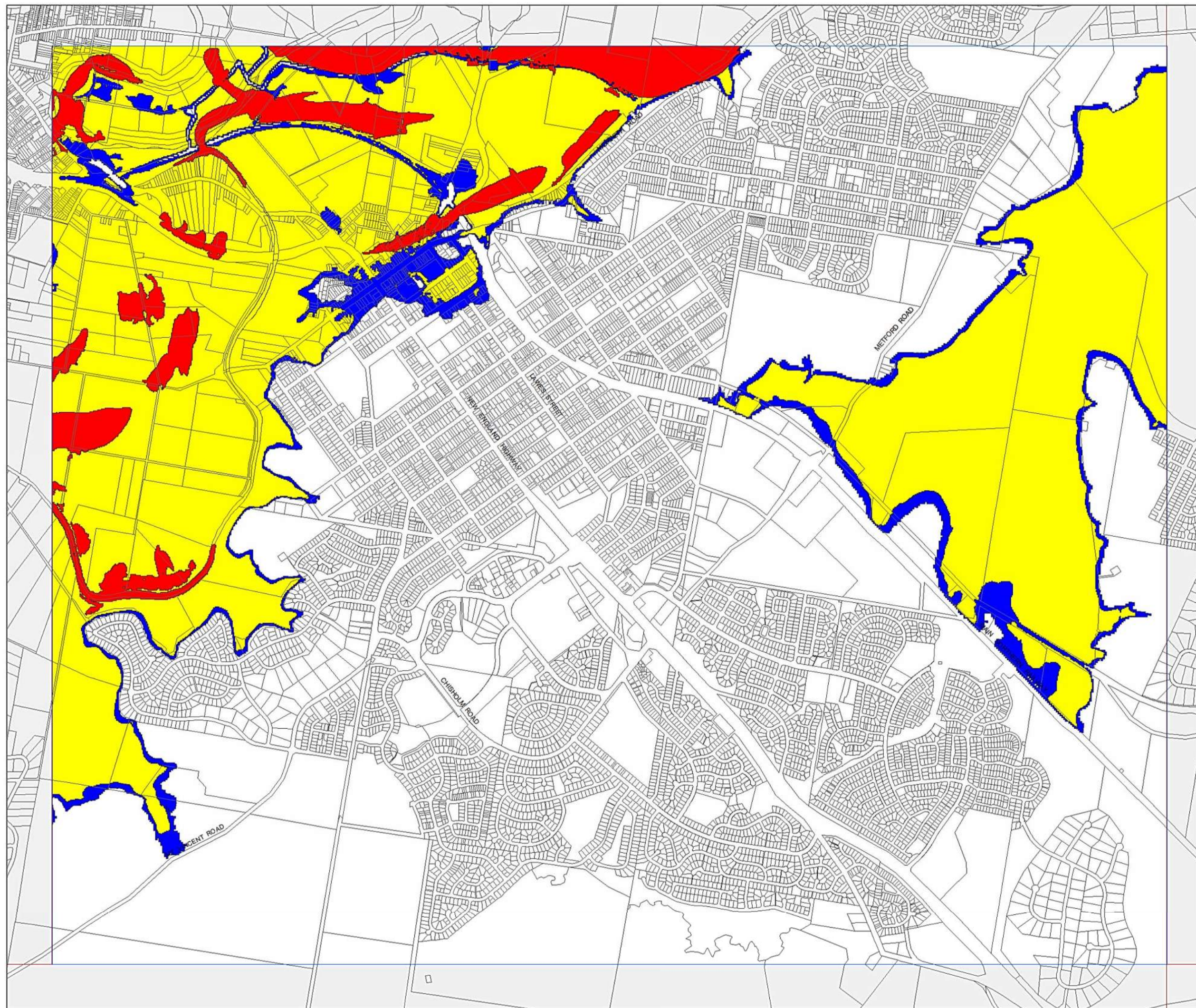
- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hydraulic Categories)\_FLD\_004D\_020\_20140611







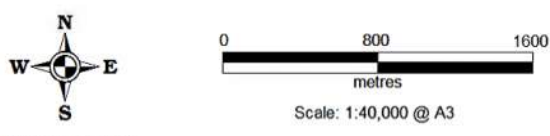
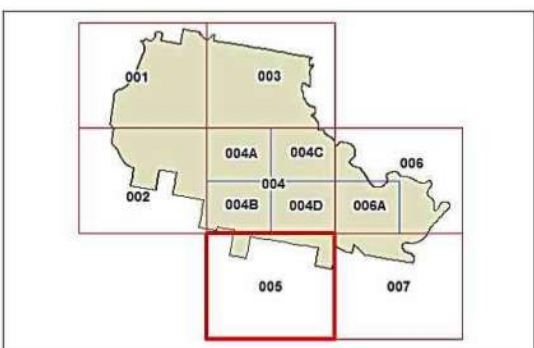
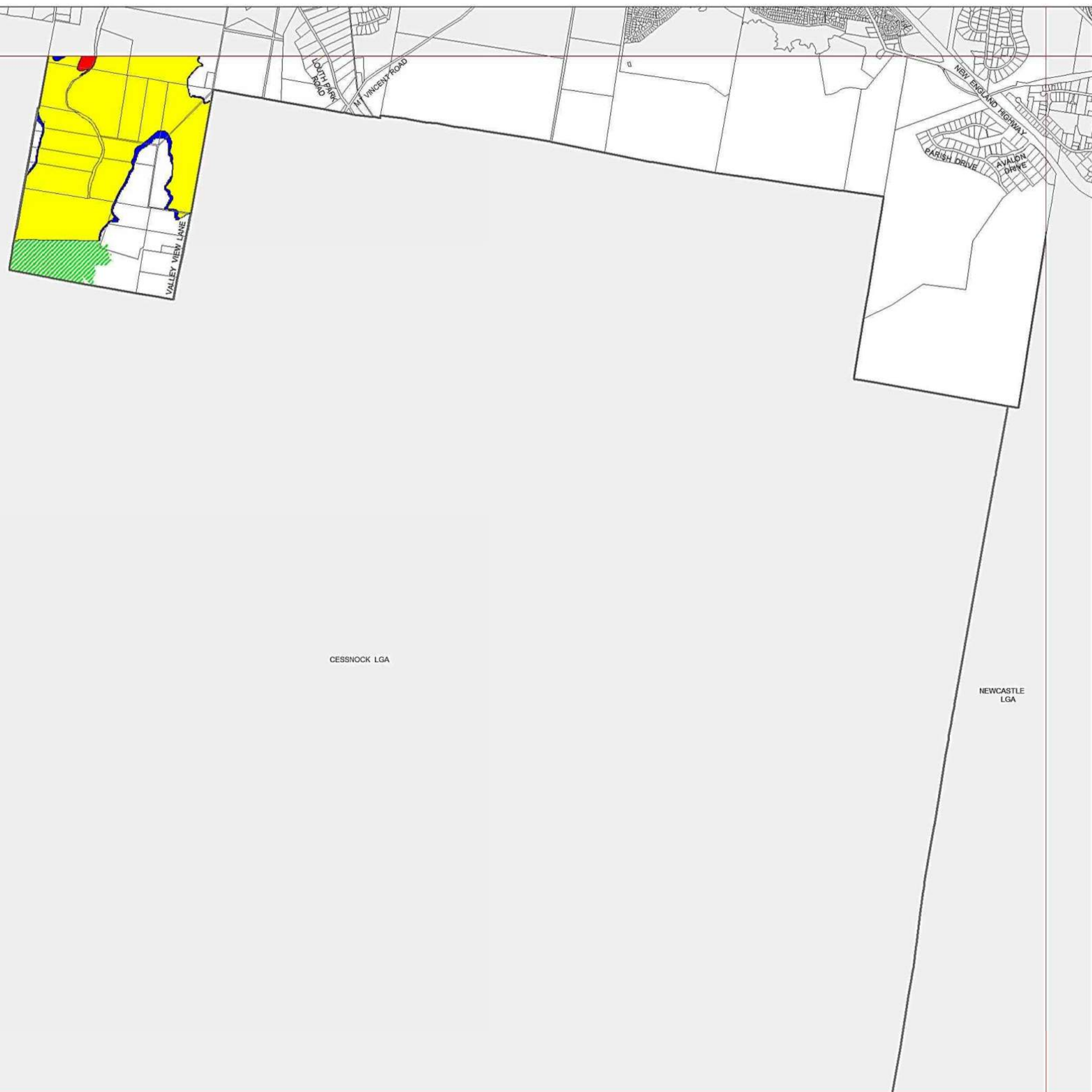
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 005**

- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council







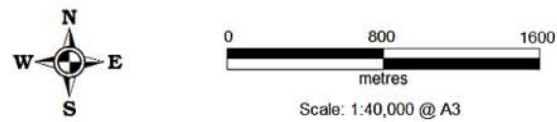
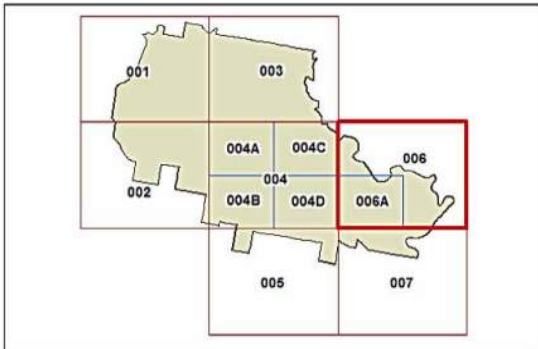
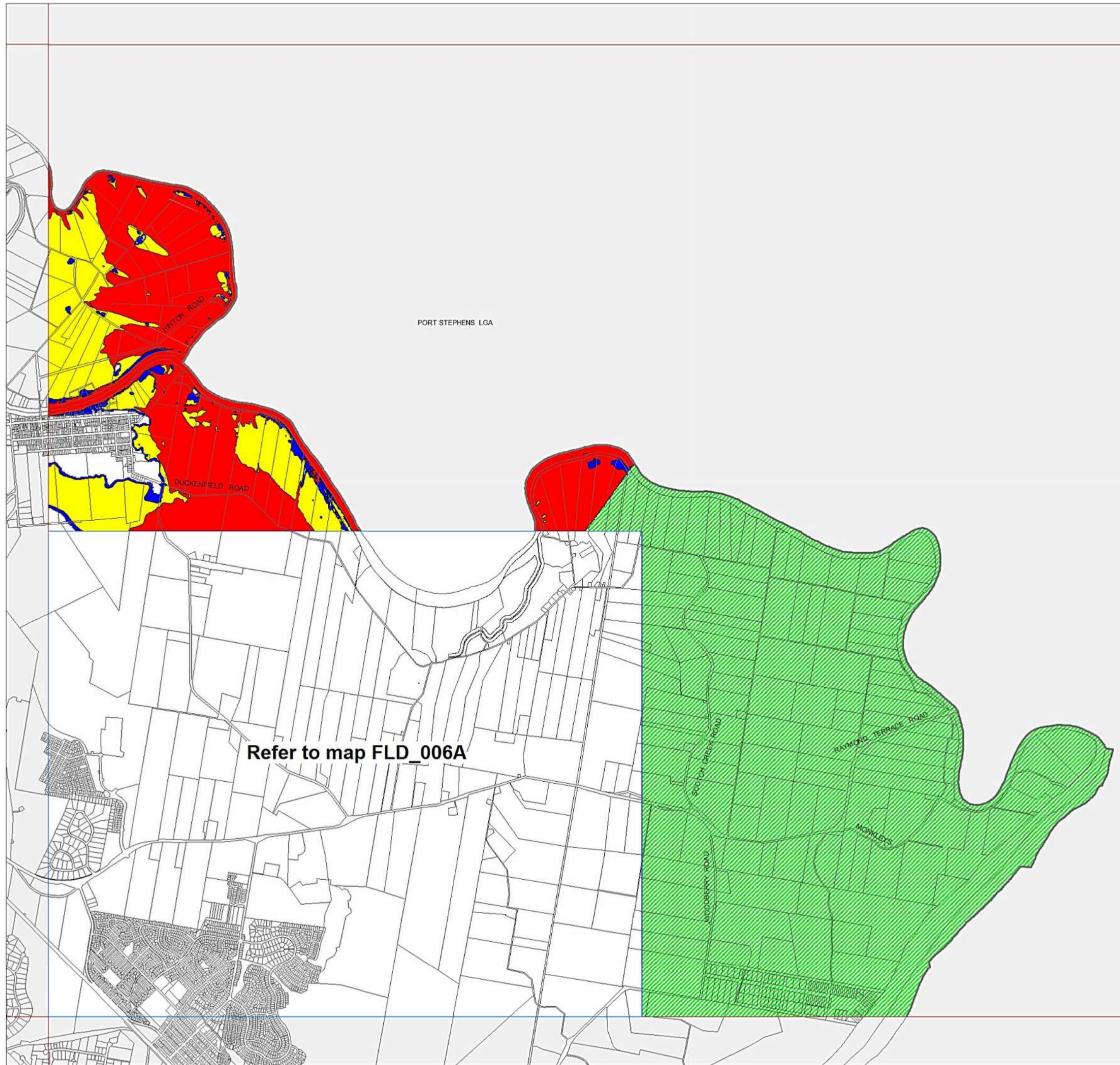
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 006**

- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council












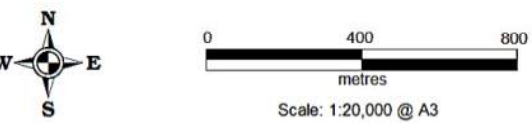
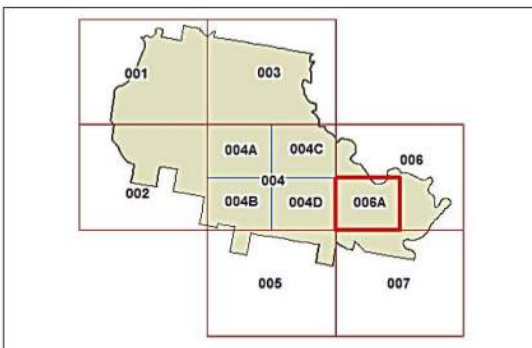
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 006A**

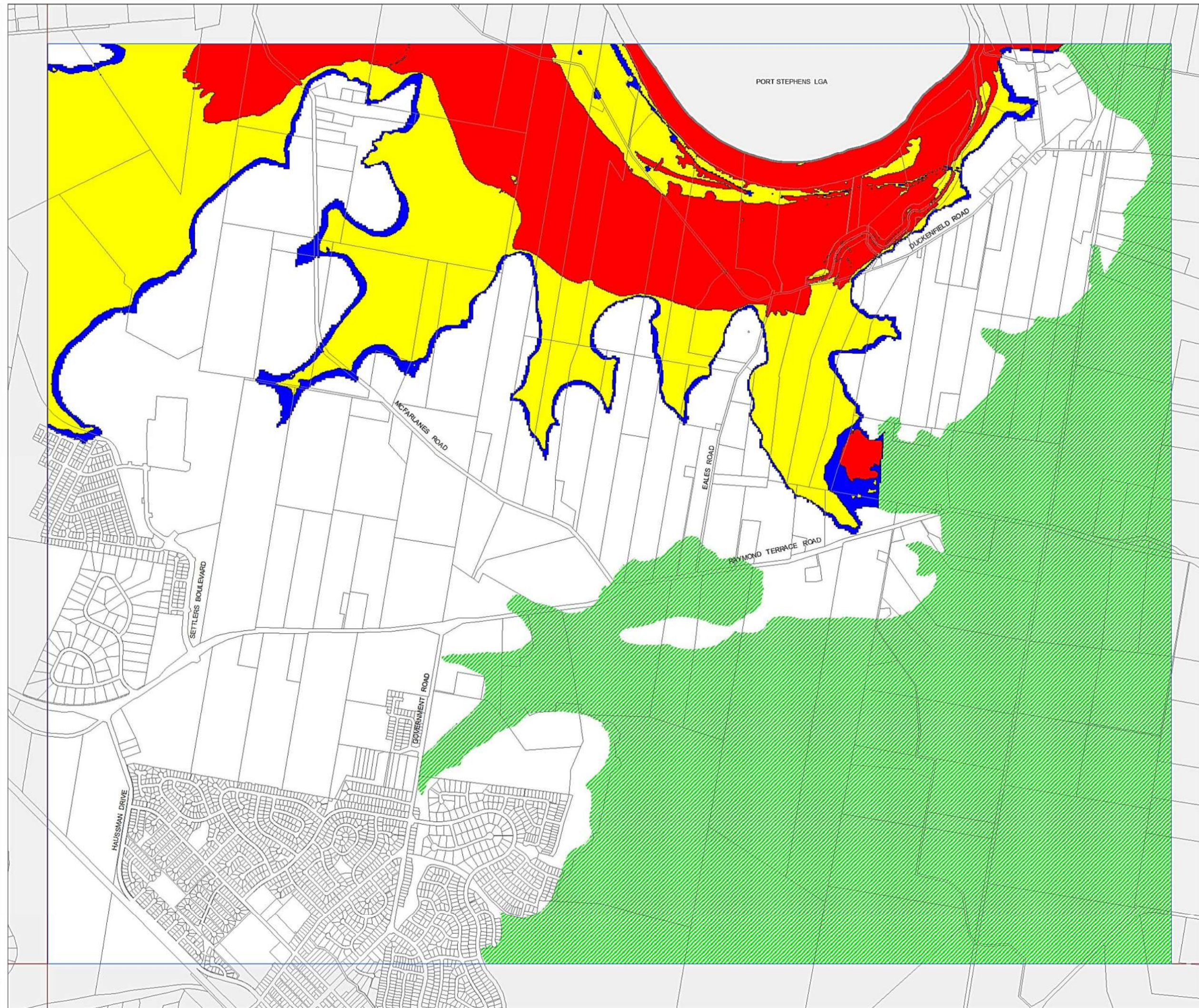
-  Flood Storage
-  Flood Fringe
-  Floodway
-  Subject to Further Investigation

**Cadastre**

 Base data 03/03/1997 © NSW LPMA  
Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hydraulic Categories)\_FLD\_006A\_020\_20140611





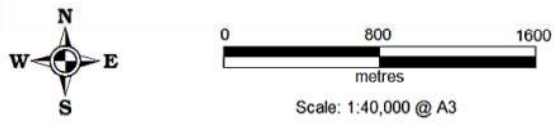
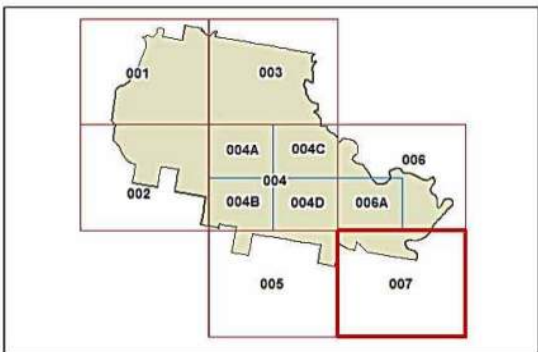
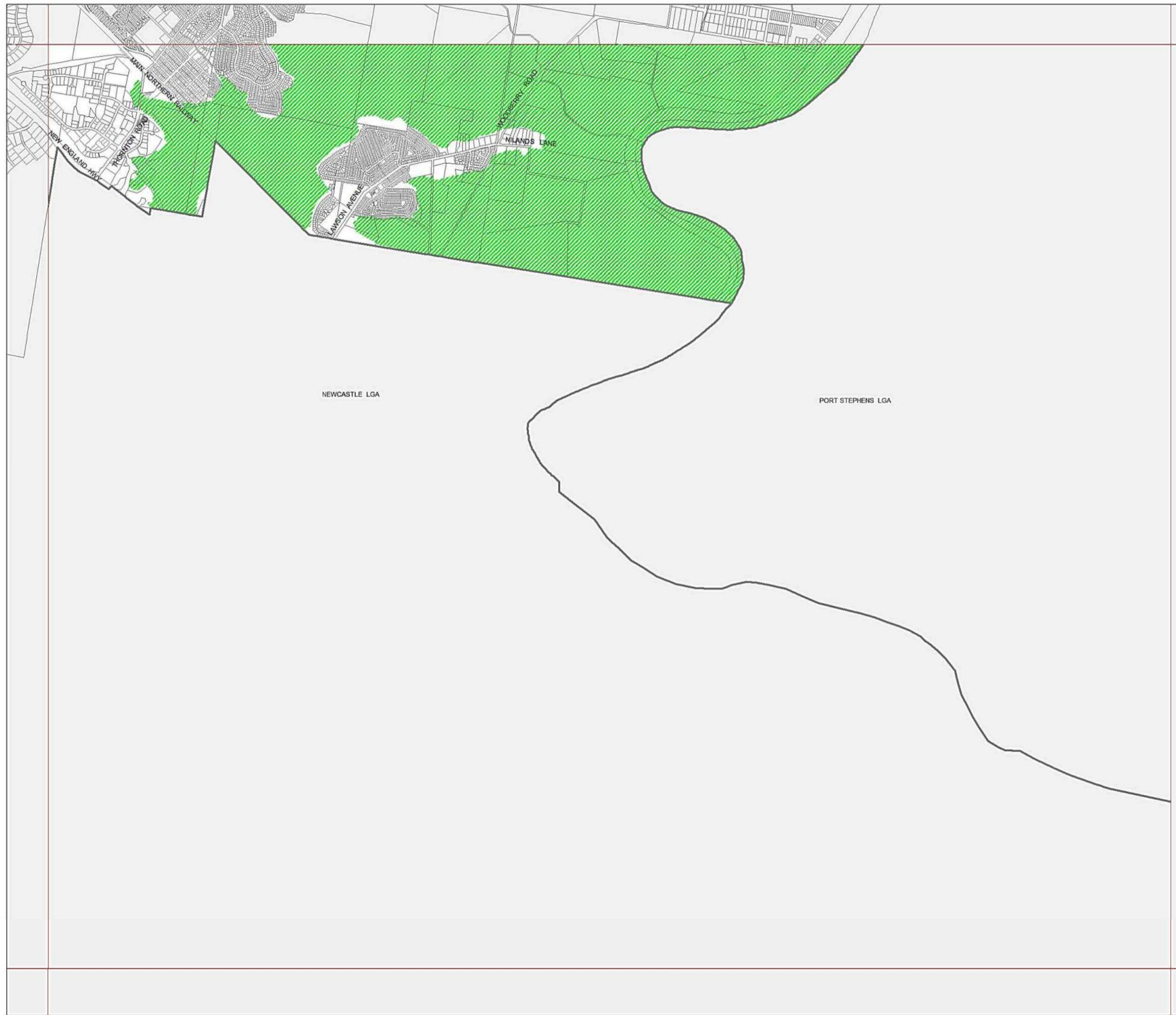


**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Hydraulic Categories\_Sheet 007**

- Flood Storage
- Flood Fringe
- Floodway
- Subject to Further Investigation

**Cadastre**  
 Base data 03/03/1997 © NSW LPMA  
 Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
 Zone 56  
 Map identification number:  
 Floodplain Management DCP (Hydraulic Categories)\_FLD\_007\_040\_20140611



#### 4.5 Hazard Category Maps

Hazard Category Maps show the various flood hazard categories as they apply in the 1:100 ARI flood event:

- Low Hazard (shown in blue); and
- High Hazard (shown in red).

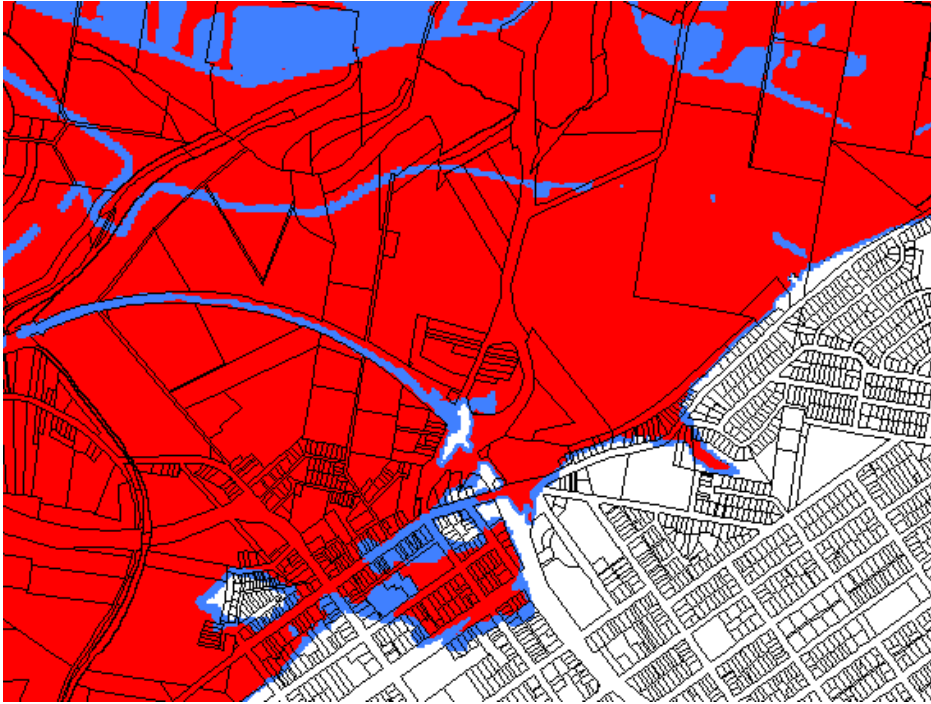


Figure 7: Example View of Flood Hazard Category Mapping.



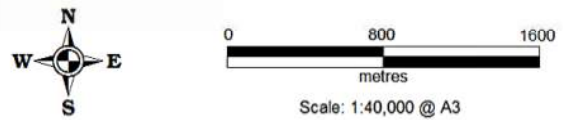
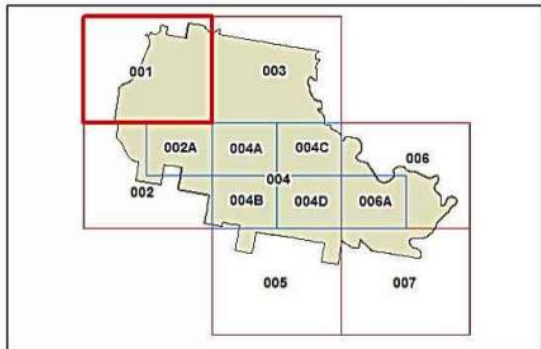
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Hazard\_Sheet 001**

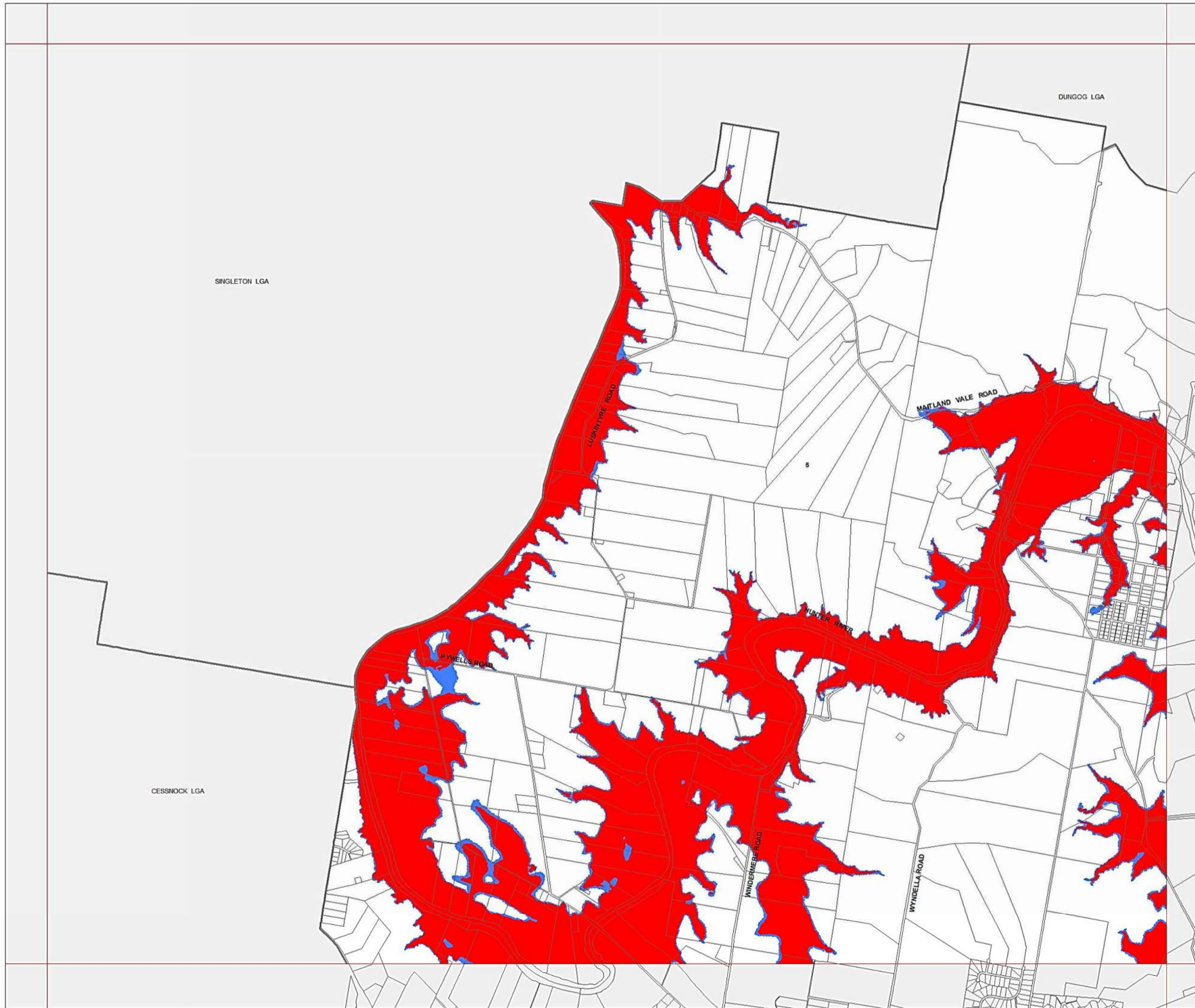
- Low Hazard
- High Hazard
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hazard)\_FLD\_001\_040\_20140611












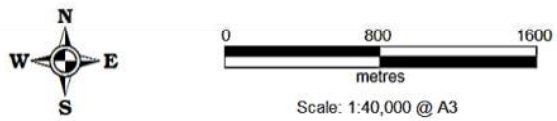
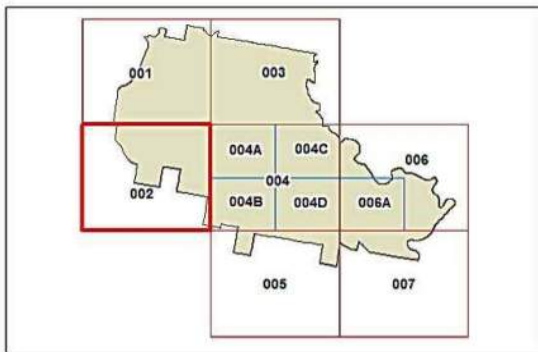
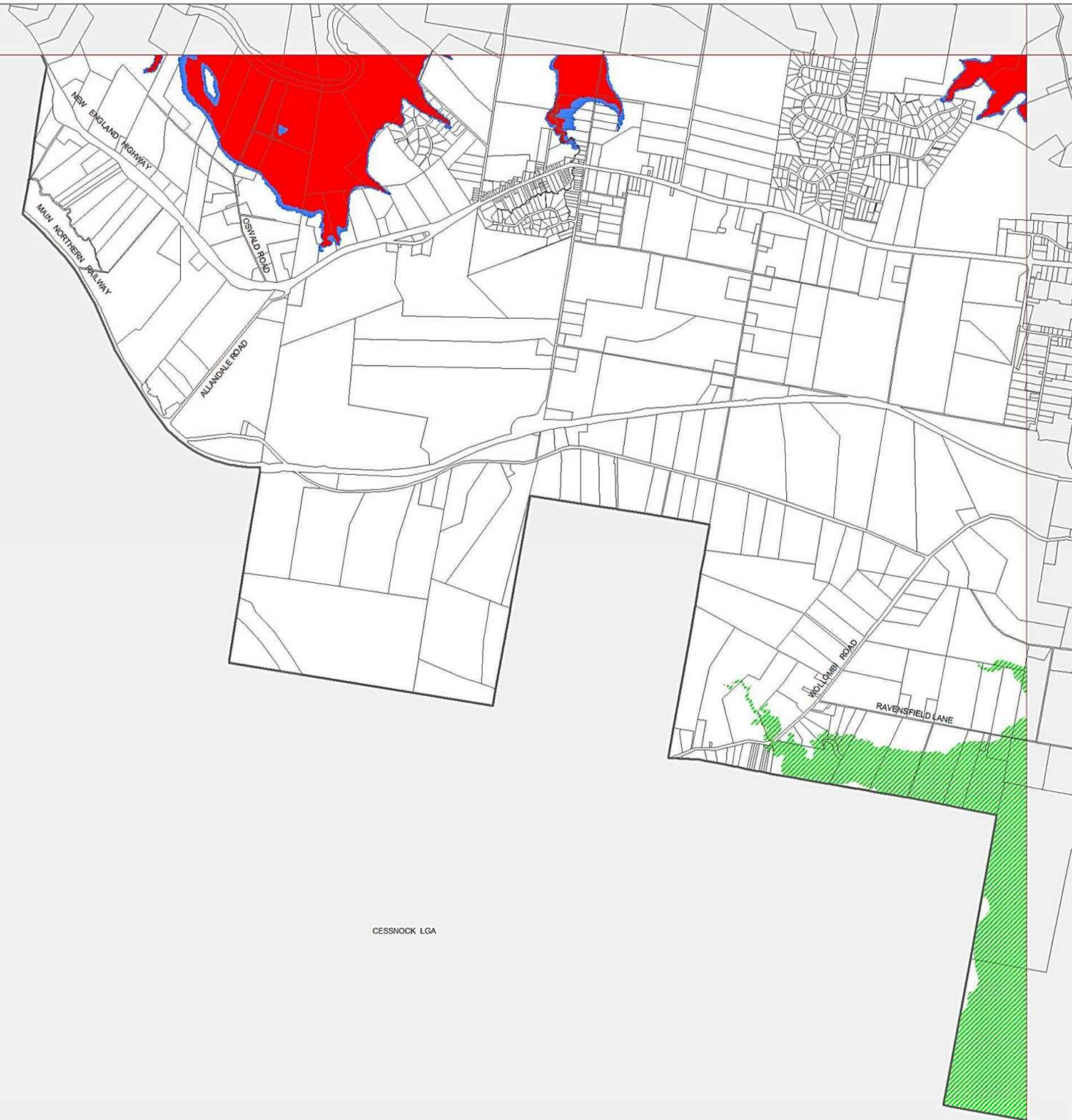
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Hazard\_Sheet 002

-  Low Hazard
-  High Hazard
-  Subject to Further Investigation

### Cadastral

-  Base data 03/03/1997 © NSW LPMA
-  Addendum data 01/04/2011 © Maitland City Council







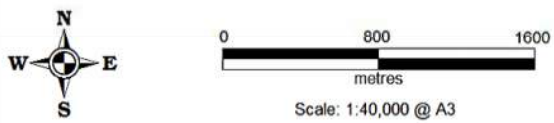
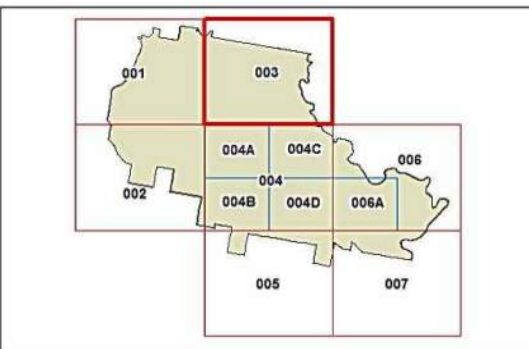
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Hazard\_Sheet 003**

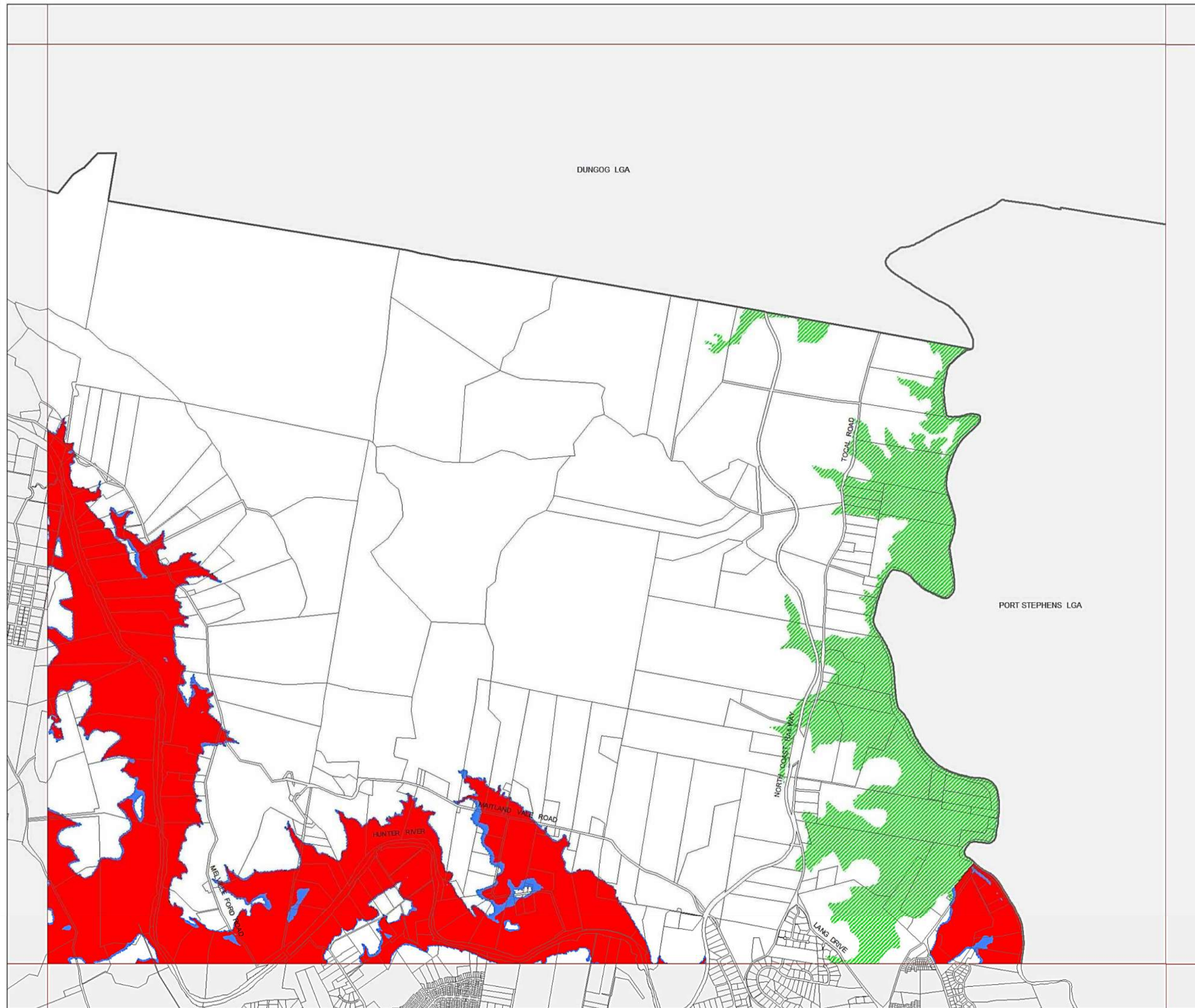
- Low Hazard
- High Hazard
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hazard)\_FLD\_003\_040\_20140611







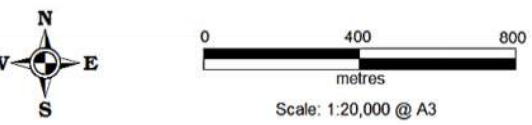
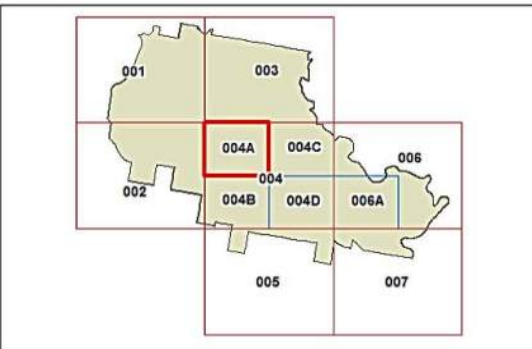
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Hazard\_Sheet 004A

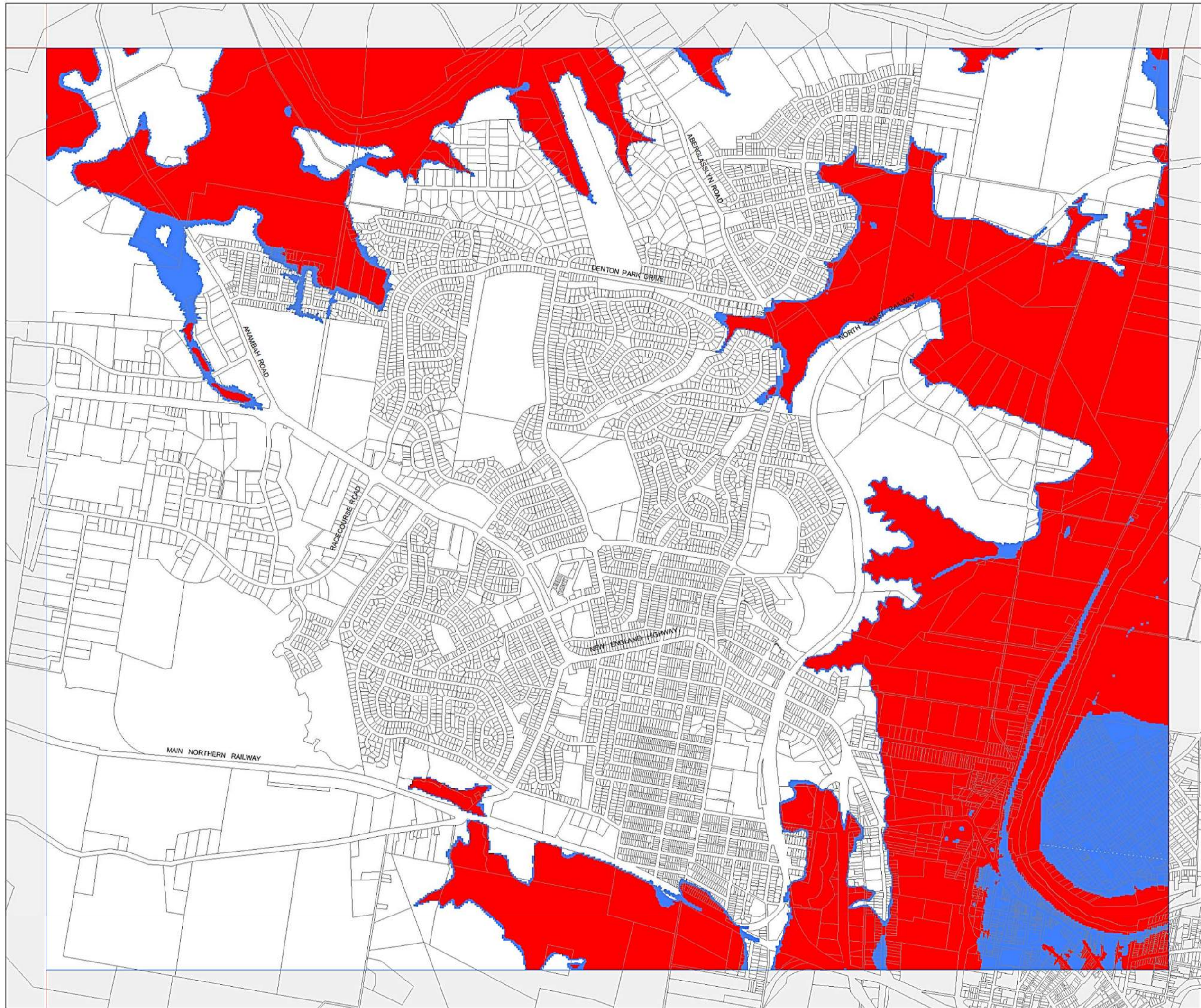
- Low Hazard
- High Hazard
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hazard)\_FLD\_004A\_020\_20140611







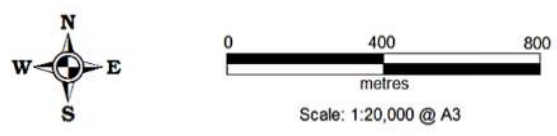
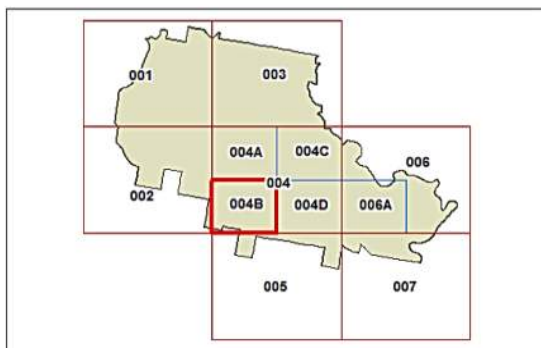
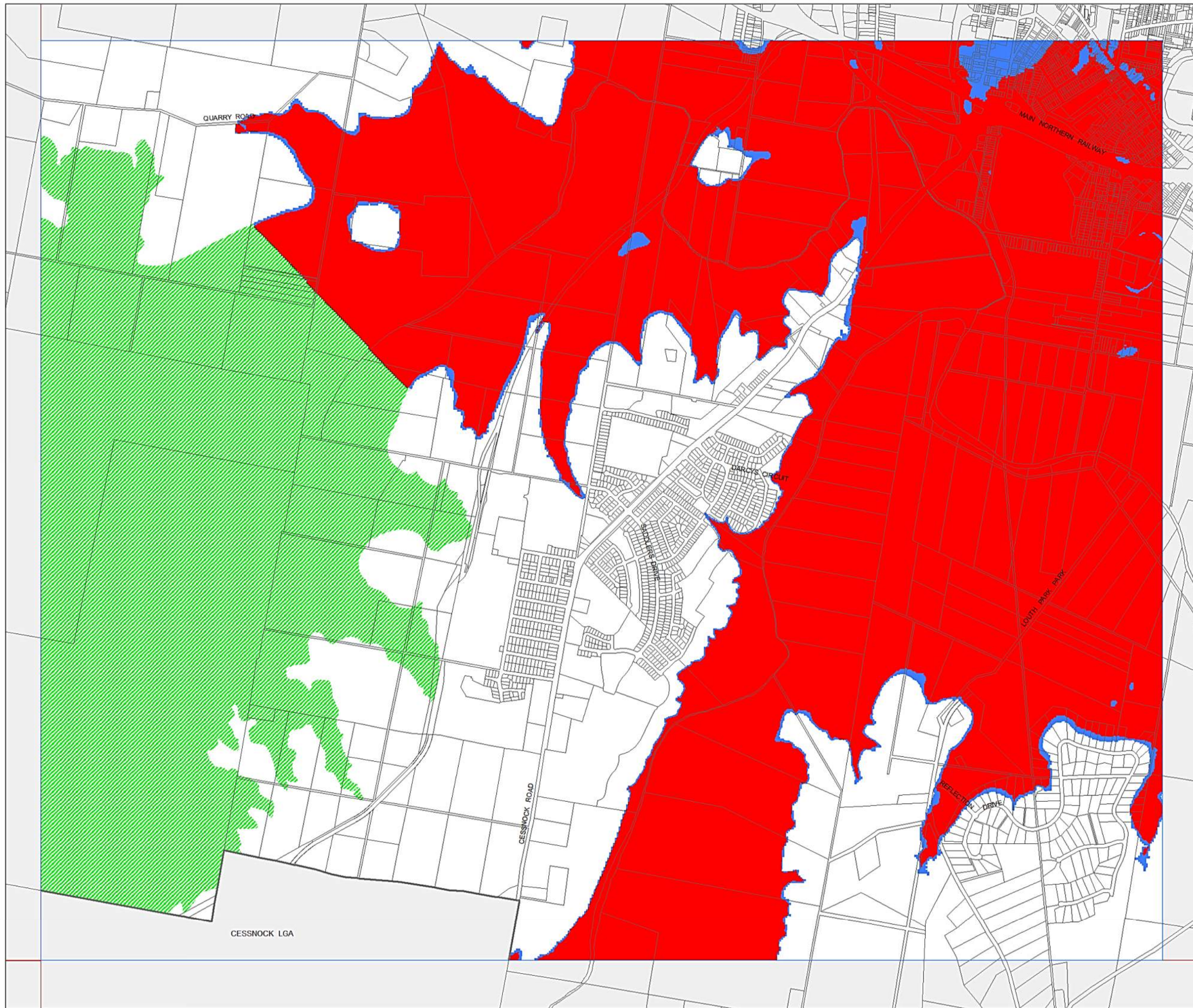
**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Hazard\_Sheet 004B**

- Low Hazard
- High Hazard
- Subject to Further Investigation

**Cadastre**

- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Projection: GDA 1994  
Zone 56  
Map identification number:  
Floodplain Management DCP (Hazard)\_FLD\_004B\_020\_20140611





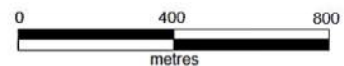
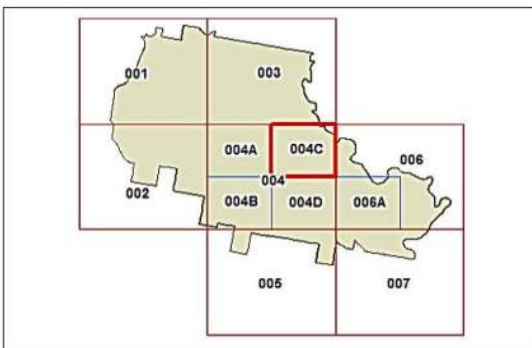
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Hazard\_Sheet 004C

- Low Hazard
- High Hazard
- Subject to Further Investigation

**Cadastral**

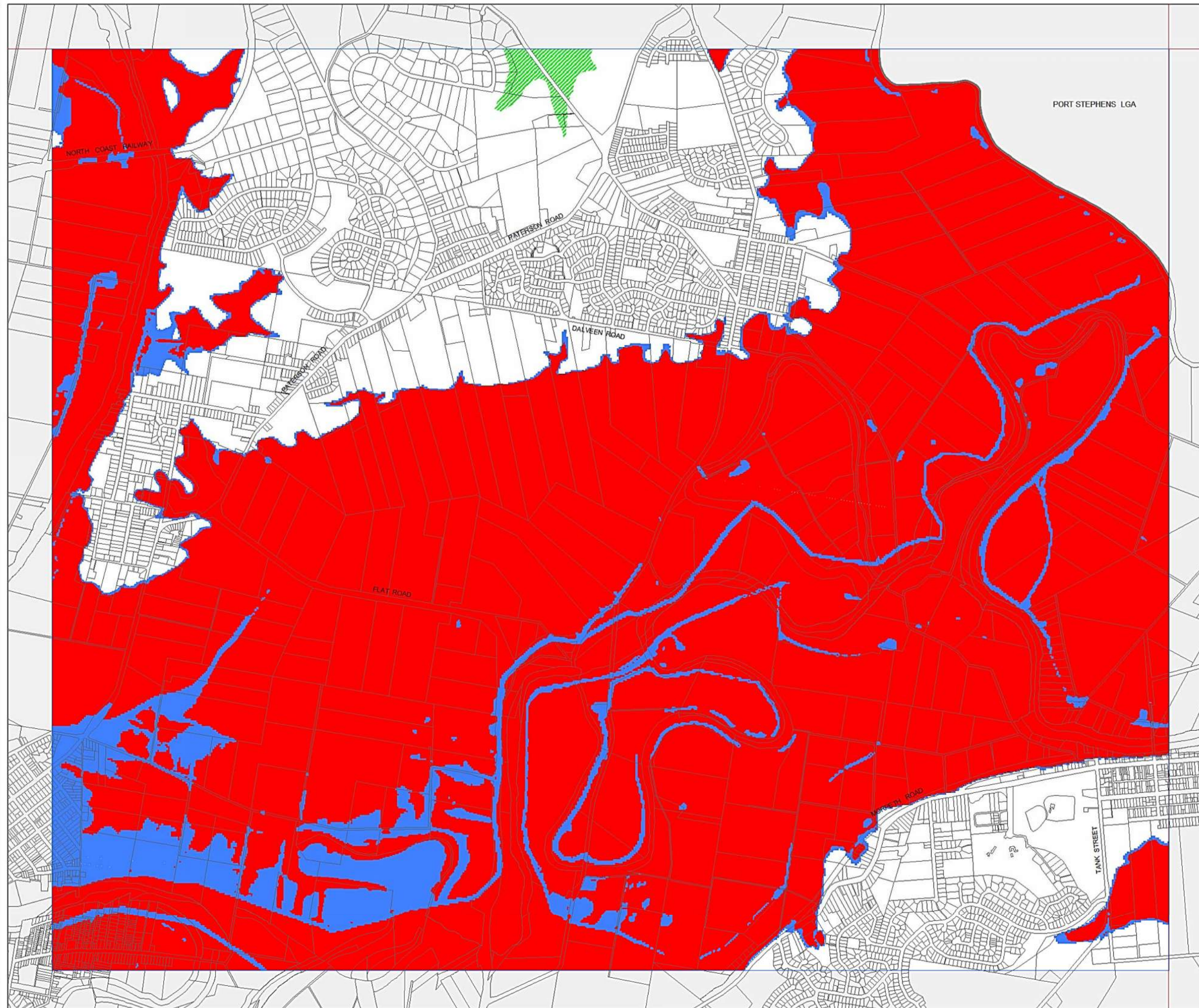
- Base data 03/03/1997 © NSW LPMA
- Addendum data 01/04/2011 © Maitland City Council



Scale: 1:20,000 @ A3

Projection: GDA 1994  
Zone 56

Map identification number:  
Floodplain Management DCP (Hazard)\_FLD\_004C\_020\_20140611









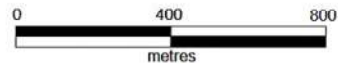
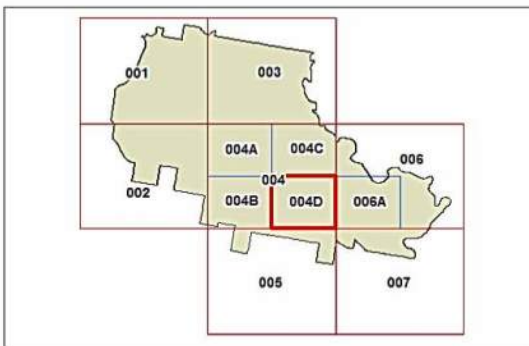
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Hazard\_Sheet 004D

-  Low Hazard
-  High Hazard
-  Subject to Further Investigation

**Cadastre**

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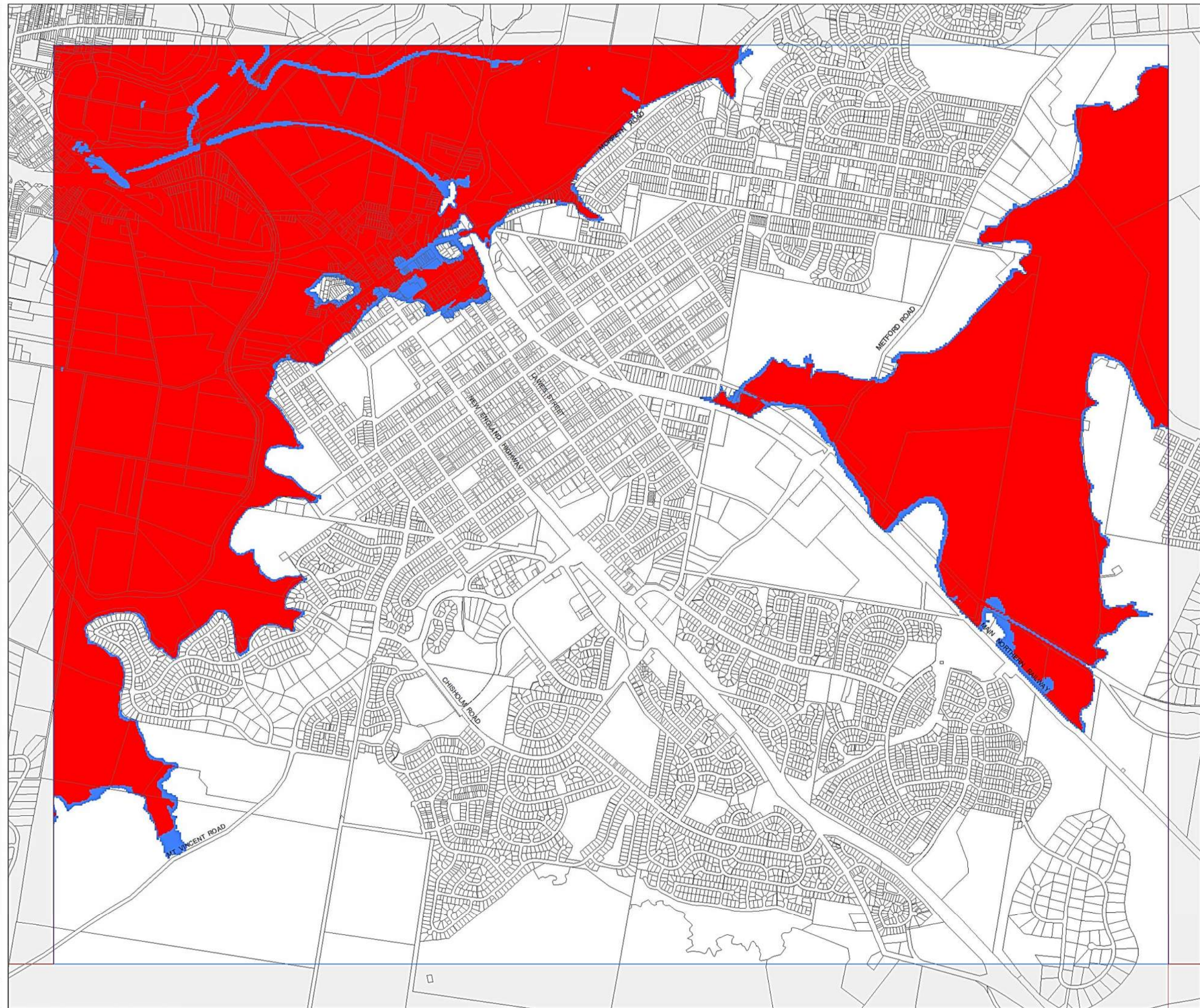


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Projection: GDA 1994  
Zone 56

Map identification number:

Floodplain Management DCP (Hazard)\_FLD\_004D\_020\_20140611







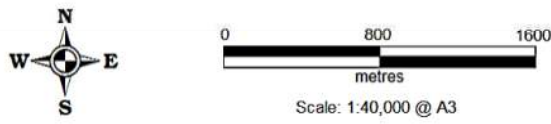
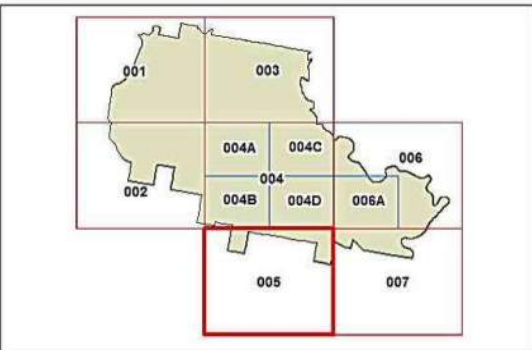
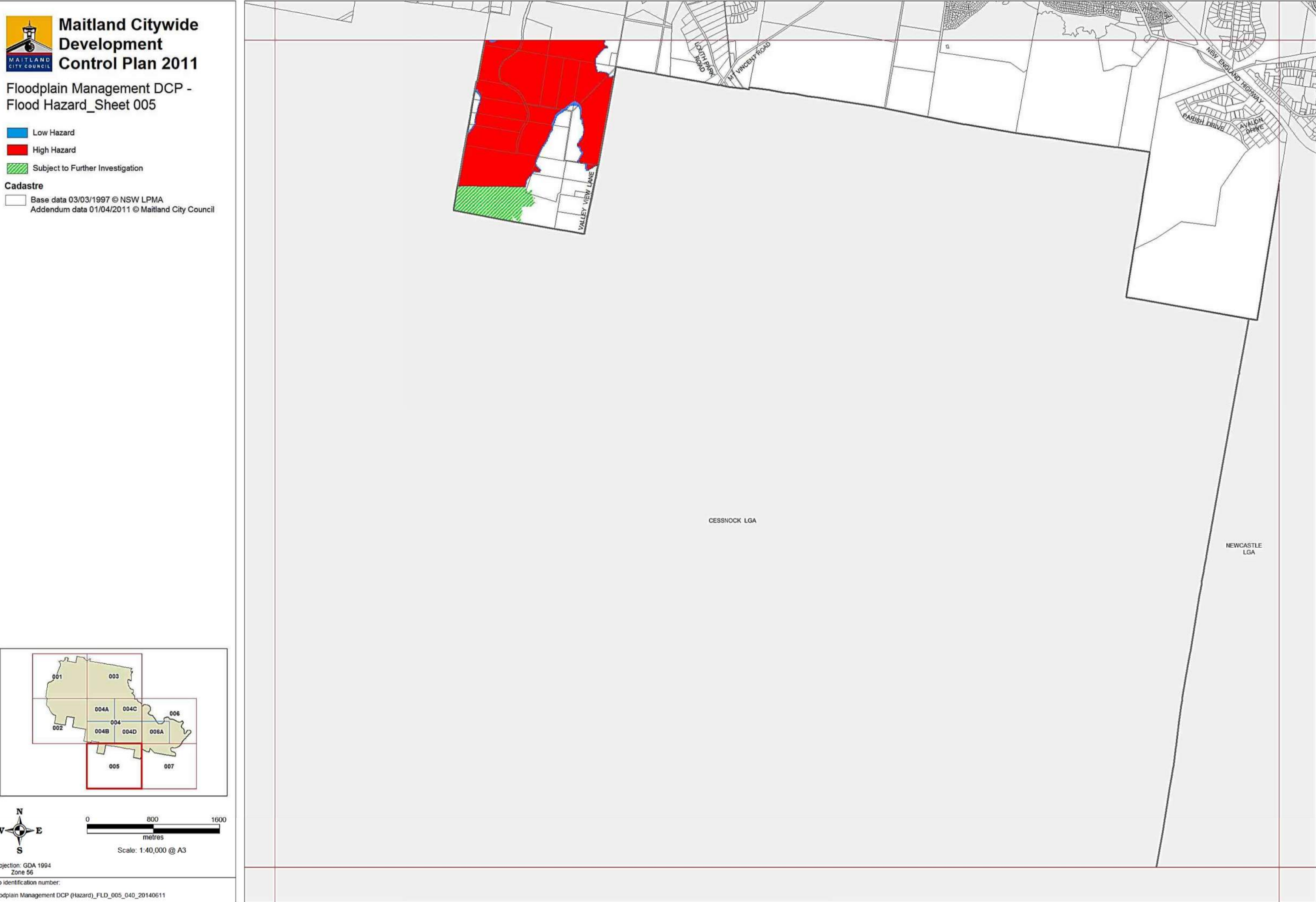
# Maitland Citywide Development Control Plan 2011

## Floodplain Management DCP - Flood Hazard\_Sheet 005

- Low Hazard
- High Hazard
- Subject to Further Investigation

### Cadastre

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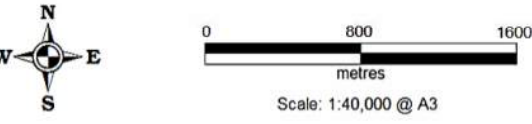
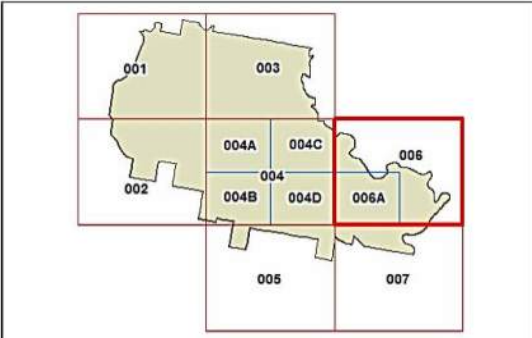
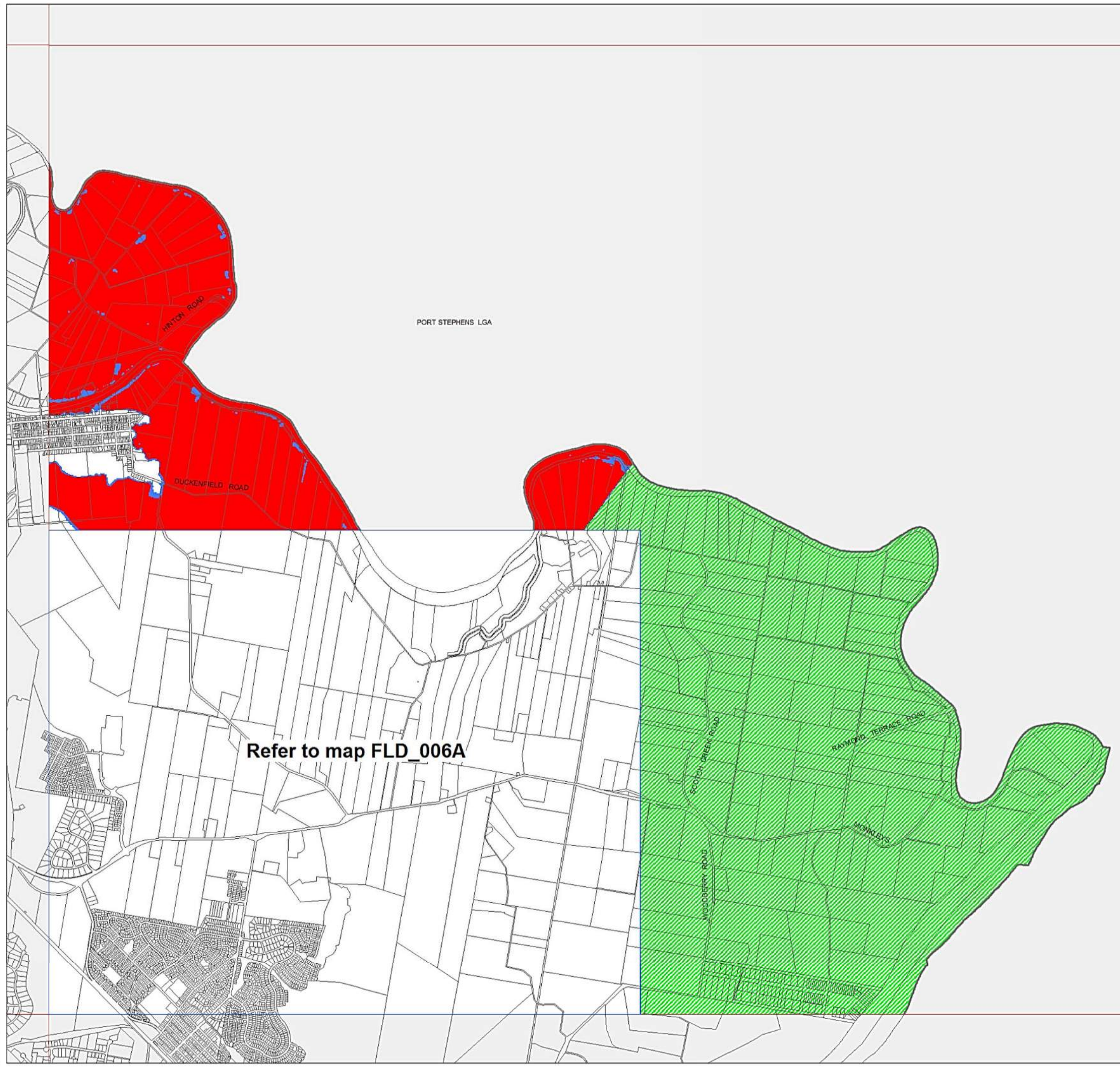


# Maitland Citywide Development Control Plan 2011

Floodplain Management DCP - Flood Hazard\_Sheet 006

- Low Hazard
- High Hazard
- Subject to Further Investigation

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Projection: GDA 1994  
 Zone 56  
 Map identification number:  
 Floodplain Management DCP (Hazard)\_FLD\_006\_040\_20140611





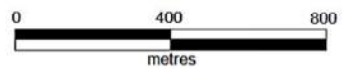
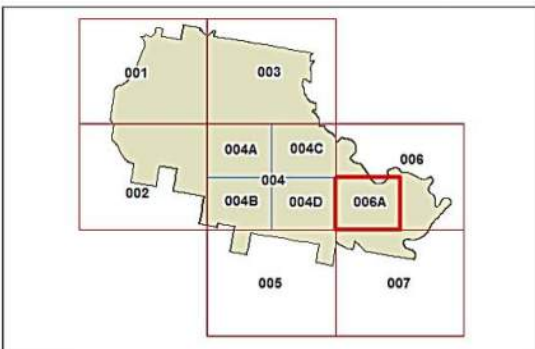
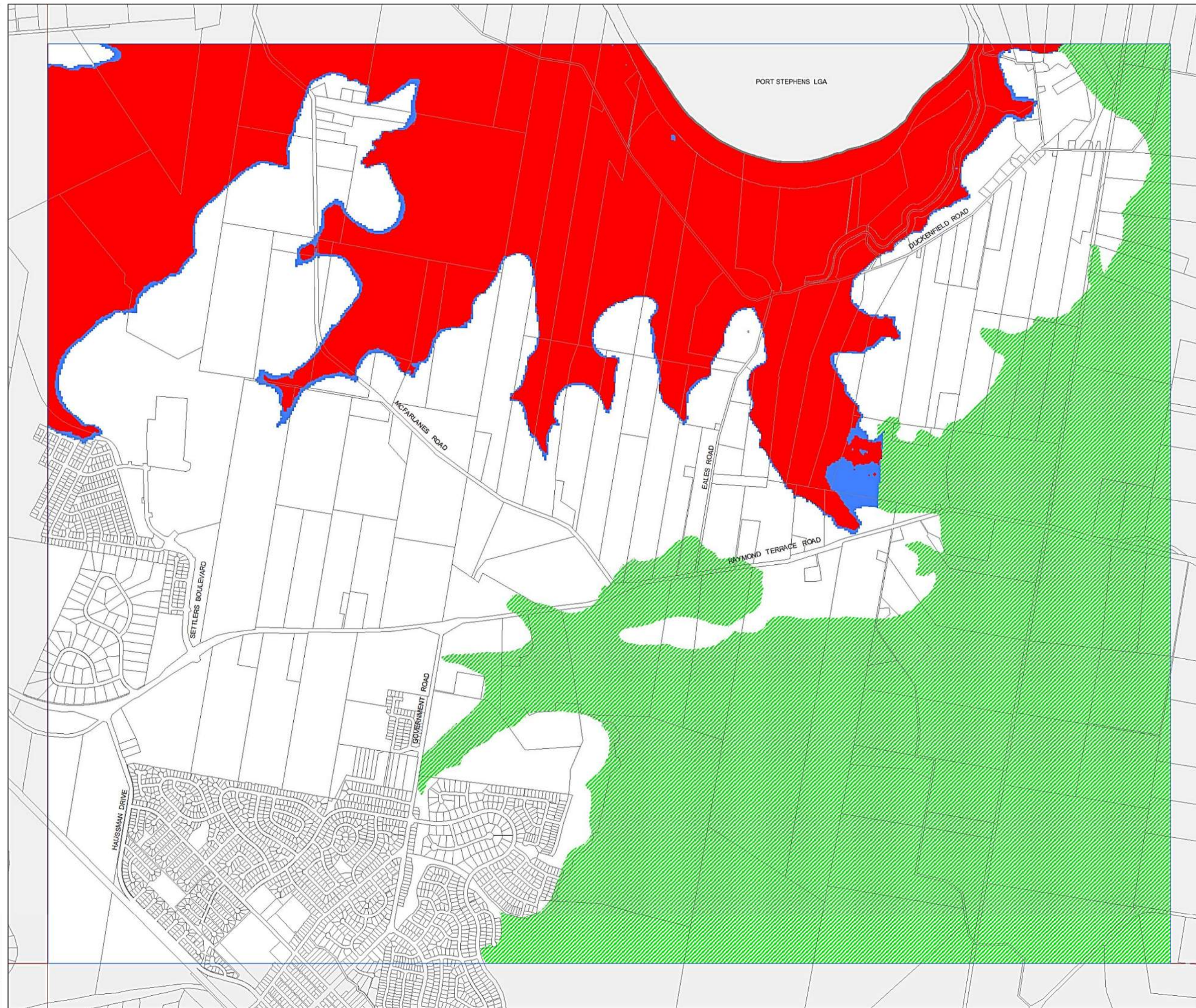
**Maitland Citywide  
Development  
Control Plan 2011**

Floodplain Management DCP -  
Flood Hazard\_Sheet 006A

- Low Hazard
- High Hazard
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Zone 56

Map identification number:

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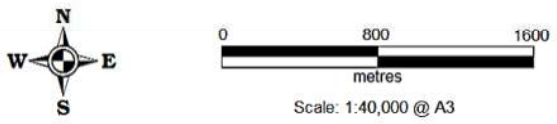
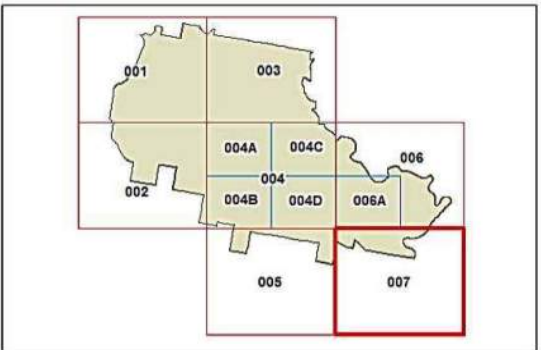
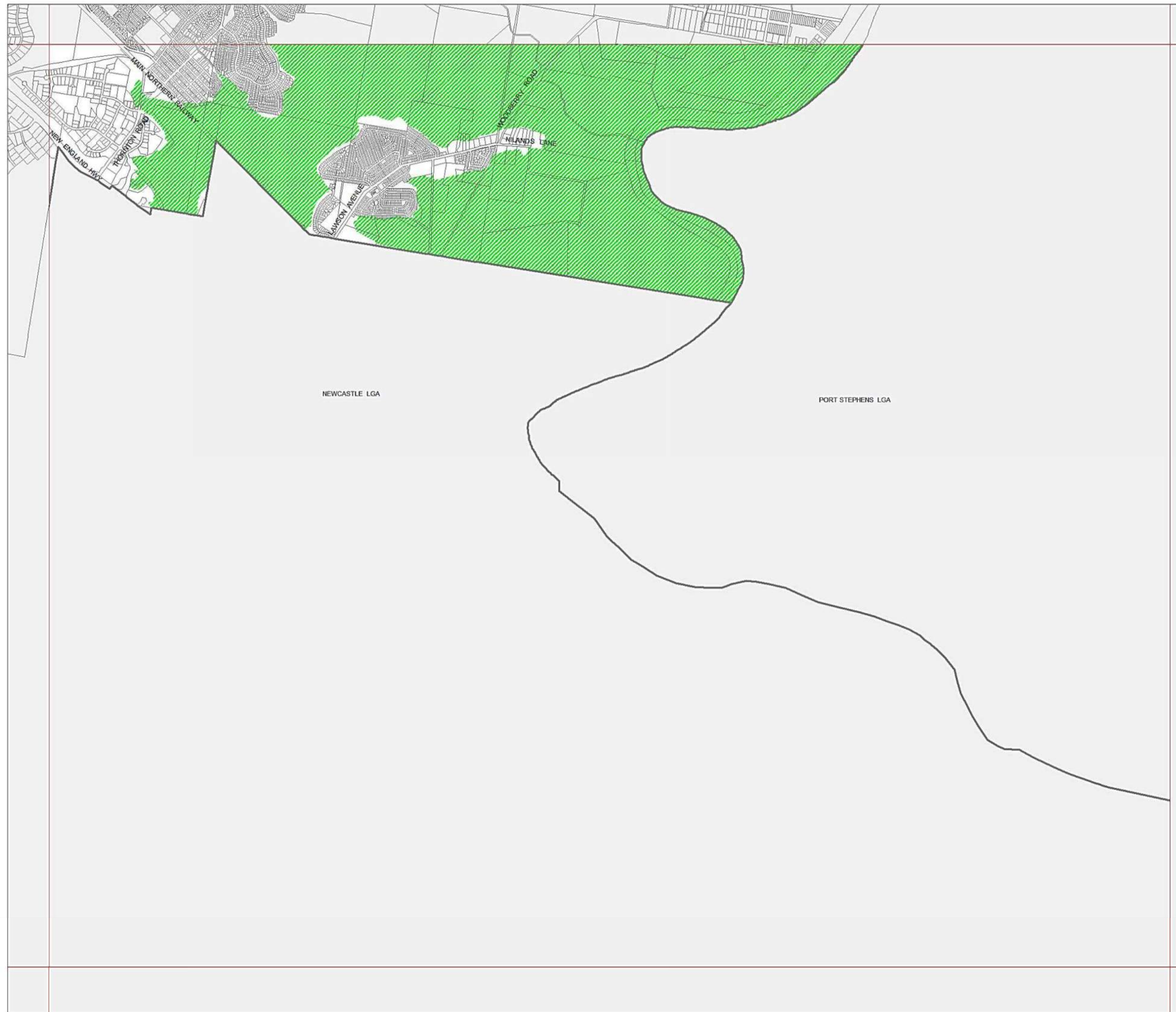


**Maitland Citywide  
Development  
Control Plan 2011**

**Floodplain Management DCP -  
Flood Hazard\_Sheet 007**

- Low Hazard
- High Hazard
- Subject to Further Investigation

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Projection: GDA 1994  
 Zone 56  
 Map identification number:  
 Floodplain Management DCP (Hazard)\_FLD\_007\_040\_20140611



## B.4 – On-site Sewage Management Systems

### 1. Introduction

#### 1.1 Preamble

Local Government and catchment boundaries rarely coincide. The catchments of the Hunter River, Lake Macquarie and Tuggerah Lakes are split between a number of Local Government Areas. The adoption of uniform standards for the control of sewage management systems will afford consistency to all service providers and consultants within this region.

As a region of natural beauty with a significant tourist industry it is important to protect our lakes, rivers and creeks from pollution. As Council is a regulatory stakeholder in this area it is legally obliged to ensure that development does not detrimentally impact on the environment. Many waterways suffer environmental damage as a result of incremental pollution rather than from one pollution event. Both groundwater and surface water influenced by discharged effluent are a prime example of this.

In recent years, there has been an increasing concern with the cumulative environmental impacts, and local public health risks that may be associated with on-site sewage management systems. On-site sewage management systems often fail due to the inability of the site to cope with effluent absorption due to impermeable clay soils, overloading of the systems with large volumes of wastewater, inappropriate design and lack of proper maintenance.

Where connection to a reticulated sewage system is not practical, installation of an on-site sewage management system is often the only acceptable alternative. Pump-out systems will not be approved for new dwellings, and are not considered an alternative system due to improper use of these systems and the unsustainable nature of their operation. Existing pump out systems will be phased out at every opportunity.

It is recognized, however, that not all sites have natural characteristics suitable for on-site disposal of effluent. Excessive slope, flood potential, high ground water and other features may be considered as site limitations when undertaking a site report. In these cases, the site may need to be improved, or an alternative system employed.

Council acknowledges that the development of land for residential purposes in areas not serviced with reticulated sewerage can present potential environmental and public health risks as a result of inadequate on-site disposal of effluent.

This chapter is a resource tool as well as a working document that aims to protect



our waterways from pollution and, in particular, pollution from on-site effluent disposal by setting minimum standards for the disposal of effluent on site in conjunction with relevant guidelines and legislation.

## **1.2 Application**

This chapter applies to all land within the Maitland City Council Local Government Area that is not capable of being connected to a reticulated sewerage system.

## **1.3 Purpose**

This policy describes Council's requirements for on-site disposal of effluent, in order to:

- protect the health of people within the Maitland City Council local government area through proper on site effluent disposal and
- protect the natural environment from excessive impacts from on-site effluent disposal.

## **1.4 Objectives**

- (a) The prevention of the spread of disease by micro-organisms.
- (b) The prevention of the spread of foul odours.
- (c) The prevention of contamination of water.
- (d) The prevention of degradation of soil and vegetation.
- (e) The implementation of measures to discourage insects and vermin.
- (f) To ensure that persons do not come into contact with untreated sewage or effluent (whether partially treated or not) in their ordinary activities on the premises concerned.
- (g) To encourage the re-use of resources (including nutrients, organic matter and water).
- (h) To minimise any adverse impacts on the amenity of the land on which it is installed or constructed and other land in the vicinity of that land.

## **1.5 Other Approvals or Licenses**

*Local Government Act 1993:*

The Local Government Act section 68 requires that the approval of Maitland City Council is to be granted prior to the installation, construction or alteration of a waste treatment device or a human waste storage facility or a drain connected to any device. It also requires the approval of Council to operate a sewage management system.



*The Local Government (Approvals) Regulation 1993 (LGAR):*

Part 4 Division 2 of the regulations to the Local Government Act sets out the requirements relating to the approval for the management of waste. Part 4 Division 7 outlines the requirements required to operate a sewerage management system. Details regarding the installation and operation of a sewage management system are also outlined in Council's On Site Sewage Management Strategy.

*Protection of the Environment Operations Act 1997 (POEO Act):*

The POEO Act Schedule 2 outlines the licensing requirements prescribed by the Environment Protection Authority for sewage treatment systems.

## **1.6 Other Standards**

*AS/NZS 1547-2000 (On Site Domestic Waste Water Management) – On-site Sewage Management for Single households:*

This Combined Australian New Zealand Standard provides guidelines for designing maintaining and installing disposal systems.

*Environment & Health Protection Guidelines for single Households (1998) (EHPG):*

These guidelines produced by the NSW Department of Local Government also provide guidelines for the design, installation and maintenance of disposal systems.

*AS/NZS 3500.5:2000 National Plumbing and Drainage Domestic Installations:*

This Combined Australian New Zealand Standard provides guidelines for the design and installation of sanitary plumbing and drainage within buildings.

## **2. Performance Criteria**

An Application to install and operate an on-site sewage management system must be primarily assessed against the performance objectives outlined in this section. The performance objectives stipulate a standard at which an on-site sewage management system must operate and be maintained.

It should be noted that a system designed and maintained to meet the prescriptive requirements in Sections 3 and 5 are deemed to meet the performance objectives in this section.

### **2.1 Performance Objectives**

- a) Prevent the spread of disease by micro-organisms.



An on-site sewage management system must prevent the spread of disease by:

- i. Its design being appropriate to the site and soil conditions.
- ii. Treating effluent in an accredited sewage management system appropriate to the intended loading of the system.
- iii. Conveying sewage to a suitable area for disposal of effluent appropriate to the intended loading of the application area.
- iv. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.

b) Prevent the spread of foul odours.

An on-site sewage management system must prevent the spread of foul odours by: -

- i. Ensuring the system is specifically designed and is considered consistent with its function and its use.
- ii. Managing liquid and solid inputs so as to not affect the viability and sustainability of the sewage management system.
- iii. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.

c) Prevent the contamination of water.

An on-site sewage management system must prevent the contamination of water by: -

- i. Ensuring the system is specifically designed and is considered consistent with its function and its use.
- ii. Its design being appropriate to the site and soil conditions.
- iii. Managing liquid and solid inputs so as to not affect the viability and sustainability of the sewage management system.
- iv. Maintaining the system to enable operation in accordance with the manufacturer's specifications and the approvals to operate and install issued by Council

d) Prevent the degradation of soil and vegetation.

An on-site sewage management system must prevent degradation of soil and vegetation by: -

- i. Ensuring the system is specifically designed and is considered consistent with its function and its use.
- ii. Its design being appropriate to the site and soil conditions, having also considered the potential for mass movement or slope failure.



- iii. Providing adequate erosion and sedimentation controls before, during and after construction/installation of the sewage management facility.
- iv. Installing appropriately positioned diversion drains around the land application area.
- v. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.

e) Discourage insects and vermin.

An on-site sewage management system must discourage insects and vermin by:

- i. Ensuring the system is specifically designed and is considered consistent with its function and its use.
  - ii. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.
- f) Ensure that persons do not come into contact with untreated sewage or effluent (whether treated or not) in their ordinary activities on the premises concerned.

An on-site sewage management system must be designed to ensure that persons do not come into contact with untreated sewage or effluent (whether partially treated or not) in their ordinary activities on the premises concerned by: -

- i. Ensuring the system is specifically designed and is considered consistent with its function and its use.
  - ii. Managing liquid and solid inputs so as to not affect the viability and sustainability of the sewage management system.
  - iii. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.
- g) Re-use of resources (including nutrients, organic matter and water).

An on-site sewage management system must facilitate the re-use of resources by: -

- i. Carefully identifying and selecting areas for the disposal of effluent whilst taking into account the local climate, surface and ground water hydrology, soil characteristics, and vegetation type.
- ii. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.



- h) The minimisation of any adverse impacts on the amenity of the land on which it is installed or constructed and other land in the vicinity of that land.

An on-site sewage management system must minimise any adverse impacts on the amenity of the land on which it is installed or constructed and other land in the vicinity of that land by: -

- i. Ensuring the system is specifically designed and is considered consistent with its function and its use.
- ii. Its design being appropriate to the site and soil conditions.
- iii. Managing liquid and solid inputs so as to not affect the viability and sustainability of the sewage management system.
- iv. Maintaining the system to enable operation in accordance with the manufacturers specifications and the approvals to operate and install issued by Council.

### **3. System Selection**

What technologies are available to dispose of effluent on site?

The following is a summary of some of the more commonly known on-site wastewater treatment technologies on which these guidelines are based. Included are general operating and sizing requirements for each particular system.

#### **3.1 Conventional Septic Tank Systems**

Traditionally, in unsewered areas, effluent from dwellings has received primary treatment in a conventional septic tank before being absorbed in underground trenches. This system has relied on the soil completing the treatment process as the effluent moves through the strata. Not all soils or sites are suitable for absorption trenches, particularly in village areas with small blocks and soils with poor soil structures. In the past in some areas, a pump-out system has been provided whereby the effluent is pumped out by a road tanker, transported and treated at a sewage treatment works. Pump out systems will no longer be approved by Council and all existing systems will be phased out at every opportunity.

Even on large allotments, the soils must have the correct characteristics to satisfactorily treat the effluent. Unsuitable landscapes may cause effluent to reach the surface and/or groundwater and adversely affect receiving water bodies. Certain landscapes within Maitland City Council region do not have the characteristics necessary to treat effluent from septic tank systems without having a cumulative adverse impact on the receiving environment.



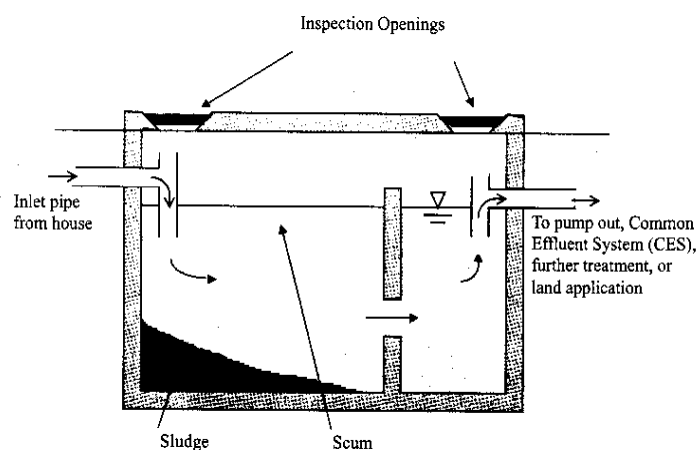
Areas of this nature may be limited in terms of development density, due to the environmental characteristics and the outlined objectives of this chapter.

### 3.1.1 How does a septic tank work?

A Septic Tank system usually comprises two chambers. These chambers can be separate or within the one tank. The first or primary chamber allows some of the solids to settle to the bottom of the tank and oils and fats to rise to the surface to form a scum layer.

The solids that have settled to the bottom of the primary chamber undergo anaerobic bacterial digestion producing sludge. During this bacterial action the composition of the effluent changes producing lower levels of chemicals and pathogens.

The second chamber or holding well accumulates smaller amounts of solids and scum prior to the effluent leaving the tank for discharge to the land application area (LAA). To ensure that solids do not reach the LAA an approved in tank filter must be installed in such a manner to enable easy removal for cleaning on a regular basis. The tank must provide a retention time of at least 24 hours so that the effluent undergoes adequate anaerobic bacterial digestion and the flow of effluent to the LAA is controlled to avoid flooding. A cross section of a septic tank is depicted in figure 1, below.



**Figure 1: Cross-section of Septic Tank**

The wastewater from a septic tank is not disinfected and has high nutrient levels therefore it poses a potential health risk and may be environmentally hazardous. Table 1 provides a general overview of the expected effluent quality from a septic tank before it is discharged to the LAA. As the discharge is considered potentially hazardous all primary treated effluent is disposed of below ground. It is therefore important to maintain and monitor your LAA to ensure that water from the trench or transpiration area does not resurface.



Parameter	Concentration
Biochemical Oxygen Demand (BOD)	150 mg/l
Suspended Solids (SS)	50mg/l
Total Nitrogen (N)	55-60mg/l
Total Phosphorous (P)	10-15 mg/l
Faecal Coliforms	1000000-100000000 cfu/100ml

*Table 1: Septic Tank Expected Effluent Quality (Source: EHPG, 1998)*

For Council to be able to approve the installation and operation of a septic tank the applicant must supply the NSW Health's certificate of accreditation. In addition the tank itself must clearly indicate the day, month and year of manufacture, the manufacturers name or registered trademark and the capacity of the unit in litres.

### 3.1.2 What Size does my septic tank have to be?

The minimum size of a domestic septic tank accredited in NSW is 2300 litres however, the Hunter and Central Coast Region of Council's require a 3000 litre tank as the minimum size for a three-bedroom dwelling.

The following equation can be used to determine a specific tank size relevant to the number of persons (max) residing in your dwelling.

STC = HLR x N + BA Where

STC = Septic tank capacity (litres)

BA = Basic allowance for sludge = 1550 litres

HLR = Hydraulic loading rate (litres /person /day) N =

Number of persons (max) in dwelling

Note: Appendix 1 (AS/NZS 1547:2000 p141) outlines the hydraulic loading rate. The minimum number of people taken to reside in a dwelling is 5. Occupancy loading is calculated at the rate of 2 persons per bedroom.

### 3.1.3 Do I need a Filter in my septic tank?

To ensure that solids do not reach the LAA an approved in tank filter must be installed in such a manner to enable easy removal for cleaning on a regular basis. A number of in-tank filters are currently available on the market. The preferred type of device is a conical filter that has an aperture of not greater than 1mm and is fitted to the outlet square of the tank. It is recommended that the filter be cleaned at 6 monthly intervals.

## 3.2 Soil absorption systems

There are two types of soil absorption systems commonly used to dispose of effluent from a septic tank. They are Absorption Trenches and Evapo-transpiration areas. These are outlined below.

### 3.2.1 How Does an Absorption Trench Work?

The absorption or sullage trench receives primary treated effluent from the septic tank. The role of the trench is to evenly discharge this effluent to the subsoil. The subsoil then filters the effluent as it percolates through. It is therefore essential that the permeability of the soil in the LAA is limited to between 5mm/day (silty Clay) and 80mm/day (sandy loam). If a seasonal or permanent water table is within 1 metre of the surface of the proposed LAA the land is not considered suitable for absorption trenches. If the site conditions are not within these parameters the effluent may impact on the health and amenity of the environment.

### 3.2.2 What Size Does My Absorption Trench Have To Be?

The following equation sourced from *AS 1547:2000* shall be used to determine the length of an absorption trench in lineal metres.

$$L = \frac{HLR}{DLR \times W}$$

Where:

L = Length of trench (metres);

HLR = Hydraulic loading rate (litres)

DLR = Design loading rate (litres)

W = Width of trench (metres)

Note: Appendix 1 (AS/NZS 1547:2000 p141) outlines the hydraulic loading rate. The DLR figure can be found in AS/NZS 1547:2000 pp 116 – 117 table 4.2A1.

A depiction of a typical absorption trench is shown in figure 2 below.



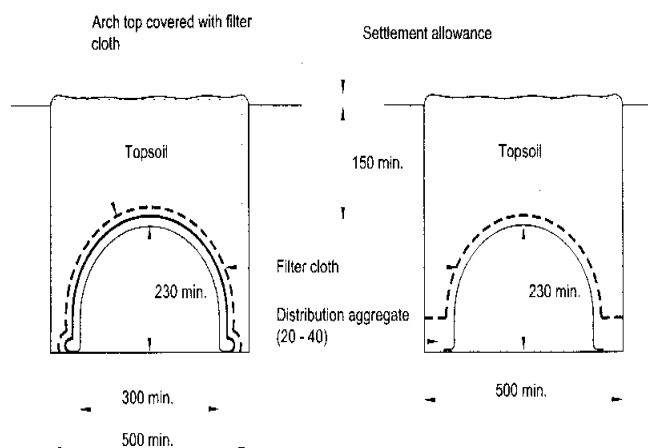


Figure 2: Typical Absorption Trench Design

### 3.3 Evapo-transpiration areas

#### 3.3.1 How Does an Evapo-Transpiration Area Work?

An Evapo-transpiration Area (ETA) is a LAA of a predetermined size that is surrounded on all sides by impervious bunding usually consisting of clay. The base of the ETA is also lined with impervious clay.

Across the high side of the bed is a distribution trench which discharges along its length to the bed of the ETA. The base of the bed has a minimum cross fall of 1%. On top of the base is a layer of 40mm to 50 mm diameter stones. Over this is laid geo-textile fabric on which sandy loam is placed. This top layer is then planted out with a nutrient tolerant grass.

The effluent enters the ETA via the distribution trench and from there into the bed. The hydraulic content of the effluent is evaporated or transpired by the grass into the atmosphere.

#### 3.3.2 What Size Does My Evapo-Transpiration Area have to be?

The following equation shall be used to determine the size of an ETA in square metres.

$$A = \text{HLR} \div \text{ETR}$$

A = Area in Square metres

HLR = Hydraulic Loading Rate (L/Person/Day)

ETR = Evapo-Transpiration Rate (L/Square Metre/Day)

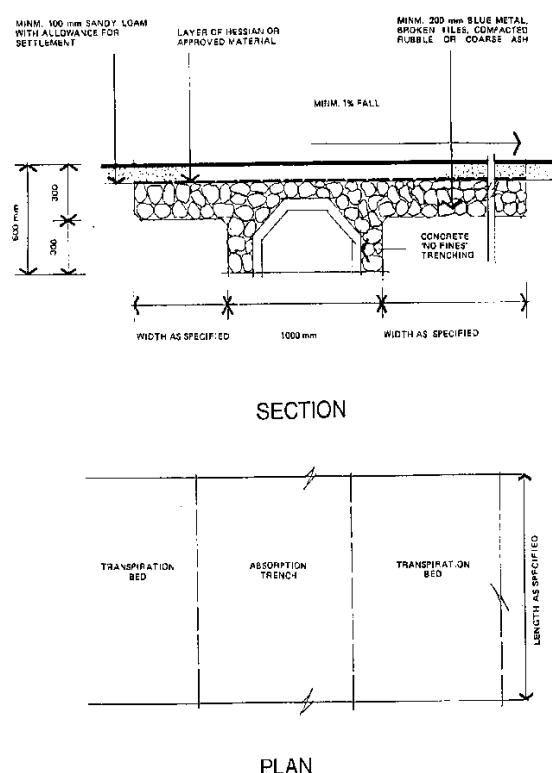
Based on: The HLR is calculated using Appendix 1 (AS/NZS 1547:2000 p141) of this document and the ETR using a standard figure of 4.25 litres/square metre/day. It should be noted that the standard ETR figure given is

conservative. If it is considered by the designer that the local conditions in conjunction with the vegetation chosen for the ETA will provide a better ETR then a water balance analysis over a twelve monthly cycle must be undertaken.

**Note:**

- An additional 93 square metres shall be added to the calculated size of the ETA if an automatic washing machine is installed in the dwelling.
- Further concessions may also be granted where water saving technologies are installed in the dwelling.

A Standard detail of an ETA is shown in Figure 3.



NOTES:- Drainage disposal areas (absorption trenches and transpiration beds) are to be constructed to the sizes and in positions specified on Drainage Layouts.  
 The absorption trench is to be located in the transpiration bed in the position indicated on the layouts and the bottom of the transpiration beds are to be level throughout.  
 Drainage disposal areas are to be finished with sufficient sandy loam to allow for settlement and after settlement are to have minimum fall necessary to shed surface water. The natural ground forming the lower side of the bed is to be graded level. Impervious retaining walls may be required to achieve this objective.  
 Any concentrated flow of surface water is to be diverted clear of drainage disposal area to Council satisfaction.  
 Disposal areas should be turfed as soon as possible following construction. Turfing of disposal areas is to be carried out at the time of construction of disposal areas when directed.

**Figure 3:  
Evapo-Transpiration Area**

### 3.4 Aerated Wastewater Treatment Systems (AWTS)

#### 3.4.1 How does an aerated wastewater treatment system work?

The aerated wastewater treatment system (AWTS) is an alternative to the conventional septic system. This effluent is treated to a level known as



tertiary treatment with the effluent undergoing disinfection by chlorination or ultra violet light in various chambers of a tank to remove bacteria and other micro-organisms.

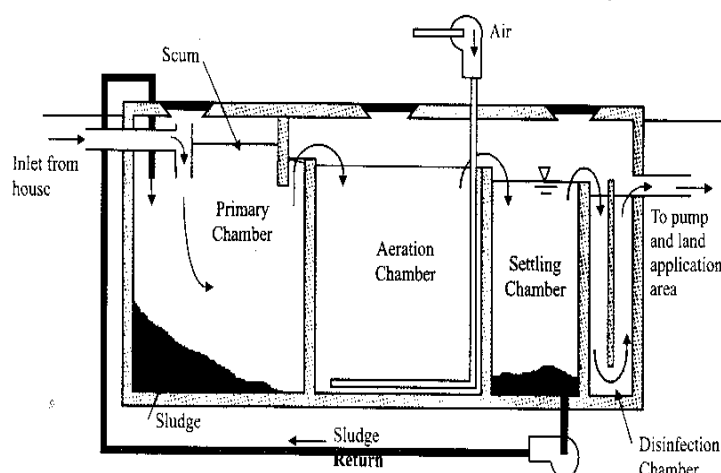


Figure 4: Aerated Wastewater Treatment System

This level of treatment allows the effluent to be spray irrigated above ground or discharged in a shallow sub surface bed and, if operated and maintained correctly, without any major health risk. Table 2 outlines an overview of expected effluent quality from an AWTS.

Table 2: AWTS Expected Effluent Quality

Parameter	Concentration
Biochemical Oxygen Demand (BOD)	<20 mg/l
Suspended Solids (SS)	<30mg/l
Total Nitrogen (N)	15-35mg/l
Total Phosphorous (P)	10-15 mg/l
Faecal Coliforms	Up to 30 cfu/100ml

Source : EHPG (1998)

Because the effluent is treated to a higher standard than the conventional septic tank, it contains fewer potential harmful pathogens and as such its impact on the health and amenity of the local environs is not considered as great.

The exception is when an AWTS is not properly operated or regularly maintained. Without regular maintenance by a suitably qualified person, significant public health and pollution problems can eventuate.

### 3.4.2 *What size does my aerated wastewater treatment system have to be?*

All AWTS are required to have NSW Health accreditation. All AWTS accredited in NSW have a 10 person capacity (expressed as a 10 EP system). An AWTS of this size will cater for most residences. Should your situation require a system greater than 10 EP a special design would be required. This is covered later in this chapter under alternative systems.

### 3.4.3 *Does my aerated wastewater treatment system need a filter?*

As with septic tank absorption systems, a filter is required to be installed to all AWTS to restrict solids and sludge from finding its way to the disposal nozzles whether they be sprayers, drippers, or the like. Should solids find their way to these nozzles they will block causing localised inundation of the disposal area and irrigation pump burn out. It is also essential to ensure that the filter does not block, as blockage will also result in the same problems.

## 3.5 **Disposal options for aerated wastewater treatment systems**

### 3.5.1 *What is surface irrigation?*

Surface irrigation utilises a specific area of your land. The irrigation being the LAA area that the site assessment process has determined as being the most appropriate space to dispose of effluent on the site. Within this area is laid the distribution line that comes from the outlet of the AWTS. Along this line is a series of sprayers, drippers or soaker attachments that discharge the treated effluent.

The most common method of application for surface irrigation is by sprayers or sprinklers. Sprayers or sprinklers are usually low pressure devices. To ensure wind-blown or drift effluent does not detrimentally affect the environment and public health, the spray head plume radius of the device should not exceed 2 metres and have a plume height of not greater than 400 mm.

This standard ensures that the prescribed buffer distances outlined in Appendix 4 protect the environment and public health.

In addition to standard sprinklers used for surface irrigation, alternative designs may be assessed. Appendix 2 outlines the requirements for a specific type of pulsating pop up sprinkler.

Effluent dispersed by irrigation is either absorbed by the soil, taken up by vegetation or evaporated. Suitable vegetation for land application areas can be found in Appendix 3.

Surface irrigation of effluent has drawbacks particularly when the LAA is inadequate to deal with the effluent or where the prevailing conditions are not



favourable. Poor soil, land slope, overland water flows and inclement weather may cause effluent to leave both the LAA and the site. This effluent may be discharged into the neighbouring environment and have detrimental environmental and/or public health effects.

The installation of shallow bed subsurface irrigation may overcome this constraint where local conditions permit and is Council's preferred option wherever possible.

### 3.5.2 *What size does my surface irrigation area have to be?*

Over recent years there has been conjecture as to the correct method in sizing the LAA where the disposal method is by surface irrigation. These methods include determining the hydraulic and nutrient outputs of an AWTs and applying these characteristics to an equation.

In most cases a determination based on the total nitrogen concentration will be the limiting factor. Accordingly, the following method can be used to determine the appropriate size of the irrigation area in square metres:

$$\text{SIA} = \text{TN} \times \text{N} \times \text{HLR} \text{ CLR}$$

SIA = Surface irrigation area (square metres)

TN = Total nitrogen output of AWTs (mg/l)

HLR = Hydraulic loading rate (L/person/day)

N = Number of persons (max) in dwelling

CLR = Critical loading rate = 25 mg/Sq m/d (EHPG pp152-153).

Note: Appendix 1 (AS/NZS 1547:2000 p141) outlines the hydraulic loading rate. The minimum number of people taken to reside in a dwelling is 5. Occupancy loading is calculated at the rate of 2 persons per bedroom. The total nitrogen output of an AWTs is taken to be the figure stated in the NSW Health accreditation document for the system in question. The critical loading rate is a nominal value. Should a revised rate be used in this calculation then supporting evidence will need to be submitted to justify the case.

Further the preferred method may be substituted by alternative solutions however a report must accompany the proposal outlining the aims, objectives, methods and results of the procedure so that Council can undertake an assessment of the procedure.

### 3.5.3 *What is sub surface disposal?*

As its name describes, subsurface disposal is the method of discharging effluent below the ground to deal with sewage on site. Subsurface disposal is Council's preferred option wherever possible.

The system entails an arrangement of plastic irrigation pipes designed to discharge effluent evenly along their length (pressure compensating line). The pressure compensating line is similar to that used in agricultural applications for irrigation. The difference, however, is the inclusion of chemicals to inhibit root intrusion into the pipe work and bacterial growth inside the line. Pressure compensating line used for effluent disposal can be identified by a pink stripe along its length whilst agricultural irrigation line is identified by a purple stripe.

The principle of AWTS sub surface disposal (SSD) is similar to that of an ETA in that the effluent is evaporated from the ground and transpired by the vegetation on the surface area. It is essential that the pressure compensating line is situated at the right depth being 150 mm below the surface. As an ETA is a closed disposal system there is no loss of effluent outside the LAA however SSD does allow the export of effluent from the LAA through percolation.

In New South Wales the technology of discharging effluent from an AWTS below the ground is a relatively recent occurrence. Prior to this all AWTS effluent was spray irrigated within a designated disposal area. In some circumstances this produced problems for the safe disposal of effluent in an environmentally responsible manner and the likelihood that effluent leaving the site would affect sensitive areas. Subsurface irrigation overcomes some of these constraints and enables more difficult sites to be able to deal with effluent on site.

Subsurface irrigation has an additional economic advantage in that effluent discharge is not required to be chlorinated. The savings over the life of a system on this point alone can be considerable.

#### 3.5.4 *What size does my sub surface disposal area have to be?*

The following equation shall be used to determine the size the LAA for sub surface irrigation in square metres.

$$A = \text{HLR} \div \text{DDR}$$

A = Area (Square metres)

HLR = Hydraulic Loading Rate (L/Person/Day)

DDR = Design Disposal Rate (L/Square Metre/Day)

**Note:** An additional 93 square metres shall be added to the calculated size of the LAA if an automatic washing machine is installed in the dwelling. In addition concession may be granted should water saving technologies be installed in the dwelling.



Based on: The HLR is calculated using Appendix 1 (AS/NZS 1547:2000 p141) of this document and the ETR using a standard figure of 5 litres/square metre/day. It should be noted that the standard DDR figure given is conservative. If it is considered by the designer that the local conditions in conjunction with the vegetation chosen for the LAA will provide a better DDR then a water balance analysis over a twelve monthly cycle must be undertaken.

### 3.5.5 *What is a Recirculating Sand Filter?*

A recirculating sand filter (RSF) is an enhanced effluent treatment device that is situated between a septic tank or an AWTs and the land application area. They are usually constructed utilising a container such as a large concrete or reinforced plastic tub. The tub is filled with a specified grade of sand to the level of the outlet manifold. The manifold has outlet or orifice shields placed over the openings from which the effluent is pumped. The manifold is covered with either a courser sand grade or pea gravel to enhance and protect the system (figure 6). An RSF is required to have NSW Health accreditation.

How does a sand filter work?

Effluent from the treatment tank is pressure dosed by a pump over the surface area of the sand filter. The effluent then percolates through the sand. A percentage of this effluent is returned to the pump chamber and then reapplied to the sand filter. This gives the device its name. The remaining effluent is conveyed to the land application area for disposal.

Sand filters are a system to enhance the quality of effluent that is produced. Sand filters under normal conditions will decrease nitrogen by converting nitrates into nitrogen gas. In some situations nitrogen levels could be decreased to below 5mg/l.

De-nitrification from this process has also led to phosphorous levels of less than 10 mg/l. In addition sand filters promote the growth of aerobic bacteria due to the filter's environment. A food source (nutrient rich effluent) for the bacteria is supplied to the bacteria on a regular basis throughout the day. Aerobic bacteria are essential in dealing with the treatment of e-coli and faecal coliforms present in the effluent.

Like most effluent treatment systems sand filters require regular maintenance. The method and considerations for servicing a sand filter is located in clause 5.4.4 of this document.

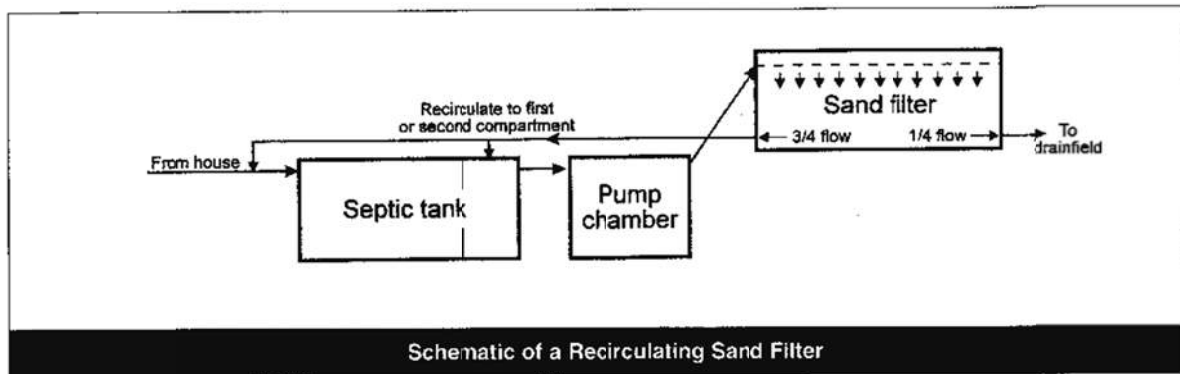


Figure 6: Sand  
Recirculating Filter

### 3.5.6 Composting Toilets

There are two types of composting toilets currently available in New South Wales, dry composting and wet composting. They function with a no flush toilet pedestal or alternatively with moisture from cistern flushing.

In these systems, toilet wastes pass from the pan down a chute and into a chamber similar in size to a conventional septic tank. All faecal matter and other compostable matter produced in the dwelling, such as toilet paper, may be disposed of to this system where it is broken down into compost by natural decomposing organisms. When fully broken down, the compost may be used in gardens but must be buried and covered.

A fan connected to a vent pipe produces negative air pressure within the composting chamber. The fan aims to draw odours away from the toilet pan and evaporate excess liquid from chamber in dry composting toilets.

A cross-section of a composting toilet is depicted in Figure 7.



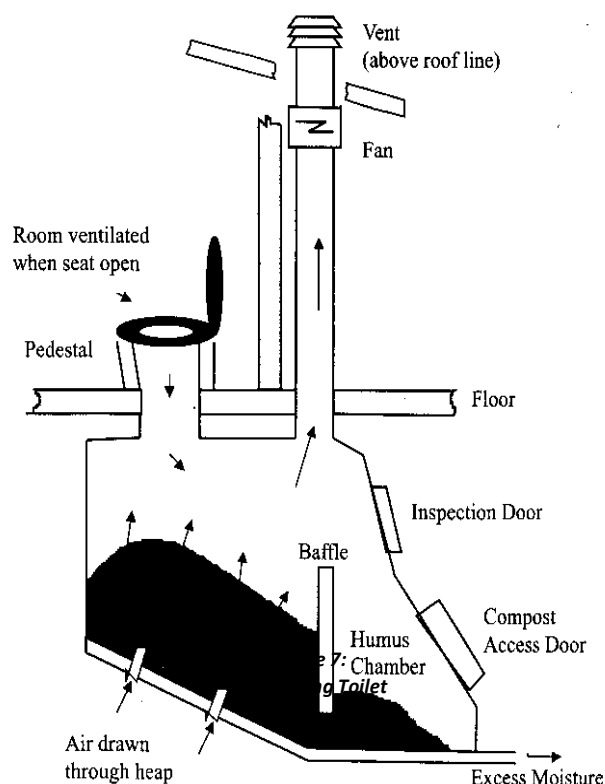


Figure 7:  
Composting Toilet

These systems treat only toilet wastes, and all other liquid wastes from the shower, kitchen and laundry (sullage wastes or grey water) must be disposed of via a separate grey water system. These systems discharge to subsurface disposal areas such as absorption trenches or evapo-transpiration areas. The dry composting toilet itself produces only a small amount of liquid wastes where operated in accordance with the manufactures specifications.

### 3.5.7 Other Alternative Systems

Increasing awareness of environmental issues has seen significant changes to domestic effluent disposal in the last decade. This trend is likely to continue with new products coming onto the market.

As such, certain installations are not described in the above information. This does not mean that Council will not assess an application for an alternative system, however, it does mean that Council must assess the proposal on its merits.

In such cases the applicant must provide designs and reports by suitably qualified professionals in the field of effluent disposal, demonstrating how the

system will meet all relevant standards and legislation and the objectives of this chapter.

### 3.5.8 *Accreditation of Waste Treatment Devices*

Clause 43 of the Local Government Approvals Regulation, 1999, provides that Council cannot approve an application to install an “off the shelf” waste treatment device unless the Council is satisfied that the device has been accredited by the Director General of the NSW Department of Health.



## B.5 – Tree Management

*State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017* regulates clearing of vegetation across NSW on non-rural land.

These DCP provisions apply to all land in the Maitland Local Government Area other than land in Zone RU1 Primary Production or RU2 Rural Landscape. Clearing of vegetation in these rural land use zones is administered through Local Land Services: Hunter.

Local Land Services will also administer clearing of vegetation where clearing exceeds the Biodiversity Offset Scheme Threshold (BOST). An approval is required from the Native Vegetation Panel in this instance. Council cannot issue a Permit in this circumstance (see *Attachment 1*).

For clearing of land below the BOST, Council can require a Permit to be issued for the clearing of vegetation under clause 7 in the Vegetation SEPP. This DCP outlines the circumstances under which a Permit is required.

Development consent is, however, required for clearing of any vegetation to which clause 5.10 – Heritage conservation in the Maitland LEP 2011 applies.

*Note 1: This chapter does not apply where clearing of vegetation forms part of the consideration of impacts associated with a development application under Part 4 or an activity under Part 5 of the Environmental Planning and Assessment Act 1979. In this circumstance, clearing of vegetation will be assessed under the Biodiversity Conservation Act 2016. No separate approval under this DCP chapter is required.*

### PART 1: DEFINITIONS

Vegetation	Definition
<i>Declared to be vegetation under the provisions in clause 9 of State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.</i>	Vegetation is defined as a plant that has; <ul style="list-style-type: none"> <li>• a height of 3 metres or more; or</li> <li>• a branch spread of 3 metres or more; and</li> <li>• a trunk diameter of 100mm or more at 1.0m.</li> </ul>
<i>Clear vegetation</i>	As defined in clause 7 in the SEPP (see Attachment 1).

## PART 2: CLEARING OF VEGETATION THAT REQUIRES A COUNCIL PERMIT

*Clearing of vegetation on ANY land listed in Column 1 requires a Council permit where it meets ANY of the criteria in Column 2. In other circumstances, no Council Permit is required.*

COLUMN 1	COLUMN 2
LAND	PERMIT REQUIRED
All land use zones to which this DCP chapter applies	<ul style="list-style-type: none"> <li>The tree is to be retained as a condition of development consent attached to the land, and/or is subject to a restriction or covenant on the land under the <u>Conveyancing Act 1919</u>.</li> <li>The tree is listed in the Significant Tree Register that forms part of this DCP chapter.</li> </ul>
Urban Release Areas	<ul style="list-style-type: none"> <li>An individual lot or total site area is greater than 1000m<sup>2</sup>.</li> </ul>
<ul style="list-style-type: none"> <li>Zone R5 Large Lot Residential</li> <li>Zone E3 Environmental Management,</li> <li>Zone E4 Environmental Living</li> </ul>	<ul style="list-style-type: none"> <li>An individual lot or total site area is greater than 1000m<sup>2</sup>.</li> </ul>

### Submission Requirements

*The Tree Application Form must be completed. In addition to the detail required on the application Form, the following additional information is required:*

Clearing of vegetation (Permit)	Submission Requirements
Clearing vegetation	<p>An application for the removal or lopping of a tree must demonstrate that the action is required because the tree:</p> <ul style="list-style-type: none"> <li>is dangerous; or</li> <li>has a history of branch fall; or</li> <li>is structurally unsound; or</li> <li>is diseased; or</li> <li>is causing property damage.</li> </ul>
Adequate information is provided to justify the removal of trees.	Council may require a report by a qualified Arborist to be provided confirming the condition of the tree and its reasons for removal or lopping where inadequate justification has been



Clearing of vegetation (Permit)	Submission Requirements
	provided.

*An application seeking a Council Permit to clear vegetation under this Part will be considered having regard to the following Performance Criteria and industry standards:*

Performance criteria	Acceptable solutions
The amenity of the area is maintained through the preservation of trees and other vegetation.	Council may require compensatory measures and/or plantings on the lot where the tree/s contribute to the established character of the locality.
	Council may approve the removal of an exotic tree if it is demonstrated that its removal does not significantly affect the amenity of the area.
Habitat and corridor function is maintained.	Council may require compensatory measures and/or plantings on the lot where the tree/s; <ul style="list-style-type: none"> <li>• provide habitat for threatened species; or</li> <li>• contribute to an identified habitat corridor.</li> </ul>
Trees are managed to minimise risk to person and property.	Lopping and pruning measures should be considered as a first response.  The application demonstrates that retention of the tree is not possible.

## PART 3: CLEARING OF VEGETATION THAT REQUIRES DEVELOPMENT CONSENT

*Development consent is required for the clearing of vegetation on any land to which clause 5.10 – Heritage Conservation (Schedule 5) in the Maitland LEP 2011 applies, or vegetation that forms part of an Aboriginal object or that is within an Aboriginal place of heritage significance.*

### Submission Requirements

*The Tree Application Form must be completed. In addition to the detail required on the application Form, the following additional information is required:*

Heritage significance (Schedule 5 – MLEP 2011)	Submission Requirements
Clearing of vegetation that is a Heritage Item	A Statement of Heritage Impact prepared by a suitably qualified Heritage Consultant.
	An application for the lopping of a tree that is a Heritage Item must be accompanied by an Arborist’s report: <ul style="list-style-type: none"> <li>• describing the works; and</li> <li>• demonstrating how the health and contribution of the tree is to be protected.</li> </ul>
Clearing of vegetation on land that contains a Heritage Item	An Arborist Report stating that the tree: <ul style="list-style-type: none"> <li>• is dangerous; or</li> <li>• is dying and remedial lopping would not improve the deteriorated condition of the tree; or</li> <li>• has a history of branch fall (documented or photographic evidence to be provided); or</li> <li>• is structurally unsound; or</li> <li>• diseased; or</li> <li>• is causing property damage; and</li> <li>• there are no reasonable measures to retain the tree.</li> </ul>
Works on a heritage item that may impact on vegetation in the vicinity of the heritage item.	An Arborist’s report may be required for any works in the vicinity of a heritage item that: <ul style="list-style-type: none"> <li>• describes the works;</li> <li>• identifies the risks to the health of the</li> </ul>



Heritage significance (Schedule 5 – MLEP 2011)	Submission Requirements
	tree; <ul style="list-style-type: none"> <li>• describes the measures to be undertaken to protect the tree;</li> <li>• any additional measures required after the works have been completed.</li> </ul>
Clearing of vegetation in a Heritage Conservation Area	DA Application Form only. Additional information may be required on assessment.

*An application seeking development consent to clear vegetation under this Part will be considered having regard to the following Performance Criteria and industry standards:*

Performance criteria	Acceptable solutions
Heritage items and significant trees are retained in the landscape.	Council may require the replacement of the tree/s where the tree/s; <ul style="list-style-type: none"> <li>• contribute to the amenity of the street, precinct or area;</li> <li>• are part of a group (such as an avenue or stand); or</li> <li>• are contributory to the heritage qualities of the area.</li> </ul>
The heritage qualities of the area are maintained.	<ul style="list-style-type: none"> <li>• Council may require a report by a qualified Arborist to be provided confirming the condition of the tree and its reasons for lopping or removal.</li> </ul>
Heritage items and significant trees are protected from works that may damage the tree.	<ul style="list-style-type: none"> <li>• Lopping of a tree that is a Heritage Item must be undertaken in accordance with AS4373-2007 Pruning of amenity trees.</li> </ul>
	<ul style="list-style-type: none"> <li>• Any works in the vicinity of a heritage item or tree must be undertaken in accordance with AS 4970-2009 Protection of trees on development sites.</li> </ul>

## PART 4: CLEARING OF VEGETATION ON THE SIGNIFICANT TREE REGISTER

*A Council Permit is required for the clearing of vegetation listed on the Significant Tree Register.*

### Submission Requirements

*The Tree Application Form must be completed. In addition to the detail required on the Tree Application Form, the following additional information is required:*

Significant Tree Register	Submission Requirements
Removal of vegetation on the Register	An Arborist's report stating that the tree: <ul style="list-style-type: none"> <li>• is dangerous; or</li> <li>• is dying and remedial lopping would not improve the deteriorated condition of the tree; or</li> <li>• has a history of branch fall (documented or photographic evidence to be provided); or</li> <li>• is structurally unsound; or</li> <li>• diseased; or</li> <li>• is causing property damage; and</li> <li>• there are no reasonable measures to retain the tree.</li> </ul>
Lopping or pruning of a Tree on the Register	An Arborist's report; <ul style="list-style-type: none"> <li>• describing the works; and</li> <li>• demonstrating how the health and contribution of the tree is to be protected.</li> </ul>

*An application seeking a Council Permit to clear vegetation under this Part will be considered having regard to the following Performance Criteria and industry standards:*



Performance criteria	Acceptable solutions
<p>Significant trees are retained in the landscape.</p> <p>The heritage qualities of the area are maintained.</p>	<p>Council may require the replacement of the tree/s where the tree/s;</p> <ul style="list-style-type: none"> <li>• contribute to the amenity of the street, precinct or area;</li> <li>• are part of a group (such as an avenue or stand); or</li> <li>• are contributory to the heritage qualities of the area.</li> </ul>
<p>Adequate information is provided to justify the removal of trees.</p>	<ul style="list-style-type: none"> <li>• Council may require a report by a qualified Arborist to be provided confirming the condition of the tree and its reasons for lopping or removal.</li> </ul>
<p>Significant trees are protected from works that may damage the tree.</p>	<ul style="list-style-type: none"> <li>• Lopping of a tree that is listed on the Register must be undertaken in accordance with AS4373-2007 Pruning of amenity trees.</li> </ul>
	<ul style="list-style-type: none"> <li>• Any works in the vicinity of a tree that is listed on the Register must be undertaken in accordance with AS 4970-2009 Protection of trees on development sites.</li> </ul>

Table 1: Significant tree register.

Suburb	Address	Species	Description
Maitland	Monte Pio Court, Conference Centre	Agathis Robusta	Queensland Kauri
Maitland	St Mary's High School Corner Grant and Bent Streets	Ficus Microcarpa variety	Weeping Fig
Morpeth	Marlborough House 75 Swan Street	Brachychiton popuineus	Kurrajong
Morpeth	Marlborough House 75 Swan Street	Ulmus procera	English elm
Morpeth	Morpeth Conference Centre Tank Street	Lophostemon confertus	Brush Box
Lorn	Nillo Infants School Belmore Road	Corymbia citriodora	Lemon scented gums
Maitland	35 Trappaud Road	Ficus macrophylla	Moreton Bay Fig

## ATTACHMENT 1.

### **Extract from *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017***

#### Definitions

***biodiversity offsets scheme threshold*** means the biodiversity offsets scheme threshold referred to in section 7.4 of the *Biodiversity Conservation Act 2016*, except that, for the purposes of this Policy, the threshold is to be determined without regard to clause 7.3 (4) of the *Biodiversity Conservation Regulation 2017*.

#### **Note.**

Clause 7.3 (4) provides that the threshold is not exceeded merely because proposed development (other than subdivision) is to be carried out on a lot included on the *Biodiversity Values Map* if the lot was the result of a subdivision carried out before the commencement of that Act and the lot is within land zoned R1 to R4, RU5, B1 to B8 or IN1 to IN3.

***clear*** vegetation, includes:

- (a) cut down, fell, uproot, kill, poison, ringbark, burn or otherwise destroy the vegetation, or
- (b) lop or otherwise remove a substantial part of the vegetation.

### **Extract from *Biodiversity Conservation Regulation 2017***

#### **7.1 Biodiversity offsets scheme threshold (section 7.4)**

- (1) Proposed development exceeds the biodiversity offsets scheme threshold for the purposes of Part 7 of the Act if it is or involves:
  - (a) the clearing of native vegetation of an area declared by clause 7.2 as exceeding the threshold, or
  - (b) the clearing of native vegetation, or other action prescribed by clause 6.1, on land included on the *Biodiversity Values Map* published under clause 7.3.
- (2) Proposed development that is or involves the clearing of native vegetation on Lord Howe Island does not exceed the biodiversity scheme threshold, despite anything to the contrary in subclause (1).
- (3) If proposed development is or involves the subdivision of land, the subdivision is taken to involve the clearing of native vegetation that, in the opinion of the relevant consent authority or other planning approval body, is required or likely to be required for the purposes for which the land is to be subdivided. Once that clearing has been taken into account, the clearing for



the purposes of the subsequent development of the land for which it was subdivided is not to be taken into account when determining whether the subsequent development exceeds the threshold.

**Note.**

*State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017* requires approval under the Policy for the clearing of native vegetation that exceeds the biodiversity offsets scheme threshold in the areas of the State that are not rural areas to which Part 5A of the *Local Land Services Act 2013* applies (and are not national park estate and certain other conservation areas or State forestry land). The Policy will apply the approval process of the Native Vegetation Panel under that Part.

## 7.2 Clearing of area of land that exceeds threshold

- (1) Clearing of native vegetation is declared by this clause to exceed the biodiversity offsets scheme threshold if the area proposed to be cleared is the area set out in Column 2 of the Table to this clause opposite the minimum lot size applicable to the land to be cleared in Column 1 of that Table.

**Note.**

Section 7.4 of the Act provides that any part of development that involves the clearing of native vegetation on category 1-exempt land (within the meaning of Part 5A of the *Local Land Services Act 2013*) is to be disregarded for the purposes of determining whether proposed development exceeds the threshold.

- (2) The minimum lot size applicable to any land being cleared is as follows:
  - (a) if an environmental planning instrument under the *Environmental Planning and Assessment Act 1979* prescribes a standard minimum lot size in relation to the land on which the proposed development is to be carried out—that minimum lot size,
  - (b) in any other case—the actual size of the allotment of land on which the proposed development is to be carried out.

For the purposes of paragraph (a), the standard minimum lot size is the minimum lot size that applies to development generally on the land, and not any different minimum lot size that applies to particular development or in particular circumstances.

- (3) In the application of the Table to this clause:
  - (a) if the proposed development does not comprise only the clearing of native vegetation—the area of clearing is the total area of proposed clearing irrespective of the number of lots concerned or the ownership of those lots, and
  - (b) if the proposed development comprises only the clearing of native vegetation—the area of clearing is the total area of proposed clearing:
    - (i) over the lots in the same ownership (unless subparagraph (ii) applies), or

- (ii) over the lots that are worked or operated as a single property (whether or not they are in the same ownership), and
  - (c) if the land on which the proposed development is to be carried out comprises different areas of land with different minimum lot sizes—the minimum lot size is the smaller or smallest of those minimum lot sizes, and
  - (d) if the proposed development comprises or involves the clearing of more than one patch of native vegetation—the area of clearing is the total cumulative area cleared.
- (4) The Environment Agency Head is to publish a method (which may include computer programs) to be used for the purpose of calculating the total area of clearing for proposed development.

**Table**

<b>Column 1</b>	<b>Column 2</b>
<b>Minimum lot size of land</b>	<b>Area of clearing</b>
Less than 1 hectare	0.25 hectare or more
Less than 40 hectares but not less than 1 hectare	0.5 hectare or more
Less than 1,000 hectares but not less than 40 hectares	1 hectare or more
1,000 hectares or more	



# B.6 – Waste Not – Site Waste Minimisation & Management

## 1. Introduction

### 1.1 Preamble

Waste and resource consumption is a major environmental issue and a priority for all levels of government within Australia. This is particularly the case as landfill sites become scarce and the environmental and economic costs of waste generation and disposal rise. Government and society alike are exposed to the issue of managing the increasingly large volumes of waste generated by our society.

Sustainable resource management and waste minimisation has emerged as a priority action area and a key in the quest for Ecologically Sustainable Development (ESD). Critical actions in this regard including the following, which have been ordered in terms of desirability:

- Avoiding unnecessary resource consumption
- Recovering resources for reuse
- Recovering resources for recycling or reprocessing
- Disposing of residual waste as a last resort

The building and construction industry in particular is a major contributor to waste, much of which is still deposited to landfill. The implementation of effective waste minimisation strategies, in particular in the planning stages to a development, has the potential to significantly reduce these volumes.

### 1.2 Application

This chapter applies to the following types of development that may only be carried out with development consent within the Maitland LGA:

- Single dwellings; residential additions/alterations and ancillary structures
- Dual occupancies
- Multi dwelling housing
- Residential flat buildings
- Commercial development and change of use
- Industrial development

The preparation of a Site Waste Minimisation and Management Plan (SWMMP) is not required for exempt and complying development. However, persons carrying out exempt and complying development are encouraged to minimise

the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives of this plan.

### **1.3 Purpose**

- To establish a framework for applicants to create a site waste management and minimisation plan to accompany development applications.
- To facilitate effective waste minimisation and management for development in a manner consistent with the principles of ESD.

### **1.4 Objectives**

- To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- To encourage building designs, construction and demolition techniques in general which minimise waste generation.
- To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan. This plan is to be completed in the planning stages of a development.

## **2. Submission/Application Requirements**

### **2.1 Documentation to be submitted**

All applications relating to residential developments, as well as commercial and industrial premises are to include a Site Waste Minimisation and Management Plan (SWMMP) as part of documentation submitted to Council. The development plans should also clearly indicate the location of waste management facilities, including recycling bins and the like.

#### **a) Site Waste Minimisation and Management Plans (SWMMP)**

A SWMMP outlines measures to minimise and manage waste generated during demolition and construction processes, as well as the ongoing use of the site.

The SWMMP is to nominate the following:

- The volume and type of waste and recyclables to be generated.
- The storage and treatment of waste and recyclables on site.
- The disposal of residual waste and recyclables.
- The operational procedures for ongoing waste management once the development is completed, including the nominated waste management service provider.



## b) Submission of a SWMMP

A SWMMP is to be submitted for all types of development listed within this policy. Council's document titled 'Site Waste Management and Minimisation Plan' Standard Form provides the necessary information and examples of SWMMPs.

More detailed SWMMPs are required for projects of a larger scale, with additional supporting information required.

The SWMMP is to be submitted with the documentation relating to Development Applications, in order to be considered in the assessment under Section 79C of the Act.

## 2.2 Implementing the SWMMP

When implementing the SWMMP, the applicant must ensure:

- Roads, footpaths, public reserves and street gutters are not used as places to store demolition waste or materials of any kind.
- Any material moved offsite is transported in accordance with the requirements of the *Protection of the Environment Operations Act 1997*.
- Waste is only transported to a place that can lawfully be used as a waste facility, and by contractors who are aware of the legal requirements of the disposal of waste.
- Generation, storage, treatment and disposal of hazardous, offensive or special waste (including asbestos) is conducted in accordance with relevant waste legislation as implemented by the Department of Environment and Climate Change, and relevant Occupational Health and Safety legislation administered by WorkCover NSW.
- Evidence such as weighbridge dockets and invoices for waste disposal or recycling services is retained.
- Evidence of compliance with any specific industrial waste laws and protocols, such as the *Protection of the Environment Operations Act 1997*.
- Materials which are to be disposed of and those which are to be reused/ recycled are to be separated through the demolition and construction process.
- Materials that have existing reuse or recycling markets should not be disposed of in landfill when possible.

## 2.3 Waste/Recycling Generation Rates

In the absence of project specific calculations, the rates specified in Appendix C Waste/ Recycling Generation Rates, including rates for residential development can be used to inform the compilation of a SWMMP.

### **3. Site Preparation Phase**

#### **3.1 Demolition of Buildings or Structures**

Demolition provides great scope for waste minimisation. The site preparation phase should aim to both maximise resource recovery and minimise residual waste from demolition activities, including illegal dumping.

##### **a) Specific Controls**

- I. An area shall be allocated for the storage of materials for use, recycling and disposal, giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation and access and handling requirements.
- II. Waste and recycling materials are to be separated.
- III. Measures are to be implemented to prevent damage by the elements, health and odour risks, and windborne litter.

##### **b) Submission Requirements**

- I. A completed SWMMP shall accompany the development application for demolition.
- II. The SWMMP shall identify all waste likely to result from the demolition, and the opportunities for the reuse and recycling of these materials, through the 'deconstruction' of the building.

### **4. Construction Phase**

The construction phase provides great scope for effective waste management. Implementing effective management practices and estimating materials will assist in minimising the waste produced on site, and a reduction in illegal dumping.

These requirements are additional to those indicated in Section 3.

#### **4.1 Construction of Buildings or Structures**

##### **a) Specific Controls**

- I. An area shall be allocated for the storage of materials for use, recycling and disposal, giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation and access and handling requirements. Signage is to be incorporated into this area in order for the clear definition of the space.
- II. Waste and recycling materials are to be separated. Signage shall clearly indicate which bins or disposal units are for waste and those for



recycling.

- III. Measures are to be implemented to prevent damage by the elements, health and odour risks, and windborne litter.
- IV. The use of prefabricated components and recycled materials should be considered when possible.

#### **b) Submission Requirements**

- I. A completed SWMMP shall accompany the development application for construction for developments listed in Section 5.
- II. The SWMMP shall identify all waste likely to result from the construction process, and the opportunities for the reuse and recycling of these materials.

## **5. Operational Phase**

The operational phase of a development should continue the opportunity for waste minimisation within the site by providing appropriate storage and collection facilities within the development and ongoing management practices.

Waste facilities shall be designed to allow for ease of use, amenity and the handling of all waste generated within the development, including source separation of waste and recyclables.

These requirements are additional to those indicated in Sections 3 and 4.

### **5.1 Residential Development**

#### **a) Single dwellings, alterations and/or additions, ancillary structures**

##### Specific Controls

- I. The location of the waste and recycling areas is to not create any adverse impact on neighbouring properties in terms of appearance, odour, noise or the like.

##### Submission Requirements

- I. A completed SWMMP shall accompany the development application, indicating measures for the construction phase and its ongoing use. Council's 'Site Waste Minimisation and Management Plan Standard form' document is considered appropriate for this form of development.
- II. The SWMMP or plans submitted with the application shall show the location of an onsite waste/ recycling storage area for each dwelling to

accommodate Council's waste and recycling bins.

**b) Dual Occupancy and Multi Dwelling Housing – Individual Storage Areas**

Specific Controls

- I. The location of the waste and recycling areas is to not create any adverse impact on neighbouring properties in terms of appearance, odour, noise or the like.
- II. The SWMMP shall indicate in a brief statement where interim recycling indoors is to occur. Interim recycling is considered as the collection of recycled goods within the internal living area before transport to external recycling bins.

Submission Requirements

- I. A completed SWMMP shall accompany the development application for construction.
- II. The SWMMP or plans submitted with the application shall show the location of an onsite waste/ recycling storage area for each dwelling to accommodate Council's waste and recycling bins.

**c) Dual Occupancy, Multi Dwelling Housing and Residential Flat Buildings – Communal Storage Areas**

Specific Controls

- I. The waste area should provide separate containers for the separation of general waste from recyclables.
- II. There is to be reasonable level of access to waste and recycling area/s or room/s for people with restricted access.
- III. The location of any garbage chute(s) for non-recyclable materials only.
- IV. Communal storage area/s or room/s is to be provided on common property in order to allow for the management of the area by the body corporate.
- V. Consideration shall be given to the incorporation of a bulky waste storage area within the communal storage area/s or room/s.

Submission Requirements

- I. A completed SWMMP shall accompany the development application for construction.
- II. The SWMMP or plans submitted with the application shall show the location of onsite communal waste/ recycling storage area/s or room/s of an appropriate size to accommodate waste and recycling bins, either provided by Council or by a private waste facility.
- III. The SWMMP shall indicate in a brief statement where interim



recycling indoors is to occur. Interim recycling is considered as the collection of recycled goods within the internal living area before transport to external recycling bins.

- IV. The submitted plans should indicate the on-site path of travel for collection vehicles if collection is to occur on site, taking into account accessibility, width, height and grade. The driveway is to be constructed in accordance with AS 2890.2 Parking Facilities – Off-street Commercial Vehicle Facilities 2002.

## **5.2 Commercial Developments and Change of Use**

### **a) Specific Controls**

- I. The waste area should provide separate containers for the separation of general waste from recyclables.
- II. If Council is not the provided waste contractor, then a valid contract with a licensed waste facility is to be kept by the premises or the body corporate managing the site for the collection of waste and recyclables.

### **b) Submission Requirements**

- I. A completed SWMMP shall accompany the development application, indicating measures for the construction phase (if required) and its ongoing use.
- II. The SWMMP or plans submitted with the application shall show the location of on-site individual or communal waste/ recycling storage area/s or room/s of an appropriate size to accommodate waste and recycling bins, either provided by Council or by a private waste facility. These areas are to be large enough to accommodate the waste generated by the development and be accessible by the waste contractor.

## **5.3 Industrial Development**

### **a) Specific Controls**

- I. The waste area should provide separate containers for the separation of general waste from recyclables.
- II. If Council is not the provided waste contractor, then a valid contract with a licensed waste facility is to be kept by the premises or the body corporate managing the site for the collection of waste and recyclables.

### **b) Submission Requirements**

- I. A completed SWMMP shall accompany the development application,

indicating measures for the construction phase (if required) and its ongoing use.

- II. The SWMMP or plans submitted with the application shall show the location of onsite individual or communal waste/ recycling storage area/s or room/s of an appropriate size to accommodate waste and recycling bins, either provided by Council or by a private waste facility. These areas are to be large enough to accommodate the waste generated by the development.



## B.7 – Riparian Land and Waterways

### 1. Relationship to Other Plans

This DCP chapter is to be read in conjunction with the *Maitland Local Environmental Plan 2011*, *Maitland Citywide Development Control Plan 2011*, *Guidelines for Riparian Corridors on Waterfront Land* (administered by NSW Office of Water), the *Native Vegetation Act 2003*, the *Water Management Act 2000* and Council's Manual of Engineering Standards.

### 2. Introduction

#### 2.1 Preamble

The impacts on riparian land and waterways as a result of rural and urban land use are well documented. Such impacts include erosion, sedimentation, increased turbidity and runoff. Other significant issues include the microclimate effects of vegetation removal (which results in increased temperatures from lack of shading over waterways, thereby altering riparian and waterway ecosystems and promoting algal growth); altered waterway flow regimes; and degradation of corridor linkages above waterways, which only serves to limit fauna movement across waterways.

#### 2.2 Definition of Riparian Corridor

The riparian corridor consists of:

- the channel which comprises the bed and banks of the watercourse (to the highest bank); and
- the Vegetated Riparian Zone (VRZ) adjoining the channel.

Figure 1 identifies a typical cross section showing the general extent of the riparian corridor.

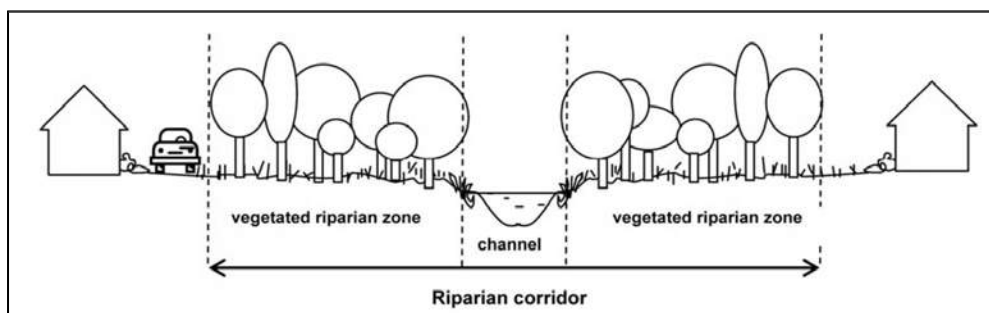


Figure 1: Riparian corridor zones (Source: NSW Office of Water)

## 2.3 Application

This DCP chapter applies to all land within the Maitland Local Government Area (LGA) that contains riparian land and/or waterways. The chapter is to be read in conjunction with Clause 7.4 Riparian Land and Watercourses of the *Maitland Local Environmental Plan 2011*, and the associated plans identified in Section 1.1 above.

## 2.4 Purpose

To establish clear guidelines for the assessment of Development Applications for uses upon, or adjoining, land that contains riparian vegetation and waterways within the Maitland LGA.

## 2.5 Objectives

- a) To help maintain the functions of waterways and floodplain areas
- b) To protect natural features and biodiversity within riparian land
- c) To provide a riparian buffer and manage edge effects appropriately at the riparian land/development interface
- d) To protect and enhance water quality, biodiversity, terrestrial and aquatic habitat within the waterway and catchment
- e) To reinstate, where feasible and practical, the natural functions and characteristics of the Vegetated Riparian Zone (VRZ), including reconstruction of existing piped or channelised waterways and natural waterways
- f) To prevent additional and unnecessary piping and channelisation of watercourses
- g) To allow appropriate public access to waterways without diminishing the functions of riparian areas
- h) To preserve and enhance the viability, condition, connectivity and extent of native riparian vegetation
- i) To protect and provide bank and bed stability along waterways and riparian areas
- j) Where watercourse restoration is undertaken:
  - To re-create the Vegetated Riparian Zone (VRZ);
  - To emulate a naturally functioning watercourse, with associated riparian vegetation where possible;
  - To prevent development from compromising the ability to re-create the riparian corridor (including the watercourse and VRZ) in the future.





**Figure 2:** *A riparian corridor which has been cleared in association with the historical agricultural use of this land. Restoration of the riparian zone should be sought for these areas.*



**Figure 3:** *An example of a rural property that clearly has the potential for restoration of the VRZ. Note the vegetation linkages further upstream.*



**Figure 4:** *The same rural property shown in Figure 3, following considerable rainfall.*



**Figure 5:** *Another example of a rural property that clearly has the potential for restoration of the VRZ and requires riparian vegetation to stabilise the banks of the watercourse.*





**Figure 6:** *The same rural property shown in Figure 5, following considerable rainfall.*



**Figure 7:** *Urban drainage networks can be designed to assimilate with riparian land and waterways further downstream, as shown here at Chisholm. Note the proximity of the footpath to the riparian drainage network, which capitalises on amenity.*



**Figure 8:** *Urban drainage network identified in Figure 7 above, showing detention areas further downstream. These detention areas eventually link with flood prone land further North.*



**Figure 9:** *Channelisation and piping works need to address the natural characteristics of riparian areas and waterways in order to manage the interface between urban drainage systems and riparian areas downstream.*



### 3. Access & Pathways

- 3.1 Pedestrian paths and cycleways shall not interfere with the connectivity or functions of riparian land, but they may be located in such a way that they contribute to management of edge effects and have minimal impact on riparian land. This includes the integration of appropriately designed and engineered drainage and stormwater infrastructure (refer to Council's Manual of Engineering Standards).
- 3.2 While riparian waterways should allow for public access and integration where appropriate and practical, access paths should not unnecessarily impact upon the VRZ.
- 3.3 Where perimeter roads are to be incorporated in subdivisions adjacent to riparian land, roads must be located in a way that ensures houses are orientated towards riparian land (as shown in Figure 7 above).

### 4. Development Location

- 4.1 The use of services such as stormwater, water and sewer infrastructure within riparian areas shall be limited to those circumstances where no other option exists, and Council is satisfied that the riparian corridor and waterway will not be significantly impacted.
- 4.2 Subdivision works and other development must not extend into the VRZ, unless there is no other practicable means to achieve an appropriate development outcome or to service development with essential services and infrastructure. The VRZ shall be protected from any unreasonable environmental effects that could be generated by new development. The proponent must demonstrate that any proposal involving interference with the VRZ will result in no significant or unnecessary vegetation loss.

Note: Any application requiring referral to the NSW Office of Water (in accordance with Guidelines for Riparian Corridors on Waterfront Land administered by NSW Office of Water) will trigger integrated development, and the respective referral fees and charges will apply.

- 4.3 Siting, location and design of developments on land that directly adjoins riparian areas shall consider the effects of the development on riparian land, and comply with the specific requirements as contained in the Maitland Local Environmental Plan 2011 and associated plans identified in section 1.1 above.
- 4.4 The use of impervious areas within and directly adjoining riparian areas is to be minimised in order to reduce unacceptable rates of runoff that cause erosion, sedimentation and siltation.

- 4.5 Fencing within riparian areas shall be minimised and be of open design in order to allow for the free passage of water, fauna and flora.
- 4.6 Bridges and crossings over waterways shall not interfere with connectivity of vegetation, alignment or profile of stream banks, and must not restrict flow during flood events.
- 4.7 For watercourses traversing urban release areas, rehabilitation shall be assisted through the appropriate design of roads, cycleways, pathways and infrastructure, ensuring that a VRZ and riparian buffer areas are maintained throughout the extent of the urban release area, and that connectivity occurs with adjoining riparian areas and waterways. The width of buffer areas is to be determined in conjunction with the order of streams, as defined in the Guidelines for Riparian Corridors on Waterfront Land administered by NSW Office of Water.

## **5. Riparian Watercourses & Flooding**

- 5.1 Soil disturbance within riparian areas shall be limited to the purposes of providing critical infrastructure and remediation activities associated with improving flood mitigation and health of waterways. Disturbances within the VRZ should be avoided at all costs.
- 5.2 Riparian vegetation should not to be removed from riparian corridors for the purposes of new development. Any proposal to consider offsets associated with development are to be assessed in accordance with the Guidelines for Riparian Corridors on Waterfront Land administered by NSW Office of Water. Where a proponent pursues an offset within the riparian corridor, the application will trigger integrated development, and the respective referral fees and charges will apply.
- 5.3 Development shall not compromise connectivity, or opportunities for future connectivity, of riparian vegetation and habitat, or interfere with hydrological flows within waterways or riparian land.
- 5.4 Any flood study to support a DA which could impact upon riparian land and/or waterways needs to include an assessment of improvements to the health and structure of riparian land. This is necessary in order to determine flood risk and identify possible natural mitigation measures against flooding, as opposed to alternative engineered mitigation measures that could have greater impacts upon the riparian corridor.
- 5.5 Improvements and remediation of riparian waterway banks should include only endemic native riparian species and complimentary soft engineering techniques.



- 5.6 Stormwater detention areas and infrastructure shall maintain appropriate engineering design and mechanisms to ensure that all stormwater is treated prior to entering riparian waterways, whilst ensuring that such engineering and the location of stormwater devices does not compromise the connectivity and functioning of riparian vegetation, waterways and wildlife habitat.
- 5.7 Works shall not be permitted in riparian areas that are likely to require excessive or incompatible piping, cause realignment of natural waterways, or alter the depth or width of natural waterways.
- 5.8 The stability of waterway banks and channels shall be protected by minimising the removal of vegetation, natural riparian debris and natural stream structure, except where woody debris results in a flood hazard.
- 5.9 Where there is no alternative but to locate infrastructure and services within riparian areas (i.e. all possible alternative options have been exhausted), the design of such services shall accommodate for the natural functions of the riparian area and waterway.

## **6. Other Environmental Considerations**

- 6.1 Asset Protection Zones (APZs) proposed for bushfire management in association with a proposed development should ideally not be located within the VRZ (see Figure 1). No riparian vegetation should be removed from the VRZ for the purposes of providing an APZ or for bushfire management, unless the proponent pursues an APZ within the VRZ (in accordance with Guidelines for Riparian Corridors on Waterfront Land administered by NSW Office of Water). Any such application will trigger integrated development, and the respective referral fees and charges will apply.
- 6.2 Access points to riparian waterways shall be located so as to minimise disturbance to riparian vegetation, banks and wildlife habitat. Access shall be restricted within the VRZ.
- 6.3 Where rehabilitation of riparian vegetation is proposed, only local native species shall be used to restore riparian areas, in order to ensure the natural ecological function is maintained. No substitution for native endemic species will be permitted.
- 6.4 If rehabilitation of riparian vegetation occurs within the VRZ, the density of plantings shall be consistent with the naturally occurring density of endemic species in the riparian area, and shall comprise 100% local native species, including groundcovers, shrubs and trees.

2011

# Maitland Development Control Plan



Part C  
Design  
Guidelines



# Part C – Design Guidelines

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This Part of the DCP contains specific design guidelines for built development. This Part builds upon the pre-planning chapters contained in Part B to include consideration of design elements that are specific to particular types of development.

*NOTE: This Part must be read in conjunction with the remaining Parts of this DCP.*

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# C.1 – Accessible Living

## 1. INTRODUCTION

### 1.1 Preamble

A survey undertaken in 1995 identified 70% of all commercial premises (shops, offices, public buildings) in the Maitland CBD were not accessible. With over 16% of our population classified as suffering some form disability, large numbers of people are denied ready access to shops, offices and public facilities. Research has shown that well designed buildings and outdoor environments can increase customers and therefore profits in commercial outlets by up to 9%. Improved home access can also mean that older people and people with disabilities are able to cope better and for longer in their own homes and communities and therefore avoid premature institutionalisation. These facts save taxpayers money, while simultaneously enhancing the quality of people's lives. As the age levels in our communities continue to rise, accessible houses assume a higher status in the market place.

Maitland Council is committed to improving accessibility for all sectors of the Community and seeks through this policy to encourage business people, builders and developers to be responsive to the needs of those members of the community who are temporarily or permanently disabled. Council is particularly interested in ensuring activities which are likely to generate a higher demand for disabled access provide facilities to a higher standard than is required by building regulations. In these cases the enhanced requirements shall apply.

### 1.2 Application

This chapter applies to all land in the City of Maitland.

This chapter applies primarily to new buildings. However, where Council considers practicable and reasonable to do so, access to existing buildings will be required in connection with proposals for changes of use or alteration which will result in an increased level of public usage.

This will apply in particular to proposals for changes of use to existing buildings for occupation by public service providers such as Post Offices, health care practitioners, solicitors or the like.

Normally any extension to a building for public usage, or to an existing accessible building, would be treated as a "new building" for the purposes of this Plan.

While this chapter deals primarily with access to and within buildings, access to the outdoor environment is, of course, equally important. Many of the issues identified in the chapter are relevant to outdoor situations, such as gradients, surface finishes, lighting and car parking.

Other considerations include the design of street furniture such as public seating, telephones, drainage grates, signage and environmental design which caters for sensory impairments such as poor vision.

Council will refer to the NSW Department of Planning Technical Bulletin 17 "Access to Public Spaces for Disabled People" when assessing proposals for



development of significant outdoor areas. A further reference is AS 1428.4 - 1992: 'Tactile ground surface indicators for the orientation of people with vision impairment'.

Any relevant legal changes (eg. to the Building Code of Australia) will apply from the date of their introduction and will prevail to the extent of any inconsistency with this Plan.

### 1.3 Purpose

To maximise opportunities for people with both permanent and temporary disabilities to live independently and to participate in community life, including outdoor recreation.

#### *Objectives*

- a) To increase community awareness of mobility handicaps affecting certain sections of the community and of the need for barrier-free design in the built environment.
- b) To ensure that new development is accessible and useable by all people in Maitland, including those people with disabilities, to facilitate their full and independent participation in community life.
- c) To introduce a quality assurance system for compliance with relevant Australian Standards for Access and Mobility (eg. as required by the Building Code of Australia) and thereby minimise the risk exposure of building users, Council and building owners.
- d) To provide an enhanced level of service for people with disability for those landuses which serve a public purpose.
- e) Where practical, to seek upgrading of existing buildings to the standards outlined in this Plan.
- f) To require an adequate supply of public parking facilities for use by people with disabilities.
- g) To provide intending developers with clear guidance as to legal requirements and Council policy for access and mobility.

### 1.4 Variations

Notwithstanding the provisions of this chapter, the council will assess all development proposals on their merits and, at its discretion, may vary the policy requirements of this chapter where it is considered reasonable or necessary to do so in the circumstances of a particular case.

Where an existing building cannot fully comply with the provisions of this chapter, the applicant shall be encouraged to address relevant accessibility objectives where possible.

Where compliance with a standard is legally required in connection with a building proposal, an applicant may, provided Council concurs, object to the Director-General of the Department of Local Government, if compliance is considered unreasonable or unnecessary in the circumstances of a particular case (S.82 Local Government Act 1993).

## 2. DEVELOPMENT CONTROLS

### 2.1 Building Regulations

The building regulations give us the minimum standards for providing a desirable level of access and protection from bad design in the built environment. The requirements are presented in two ways:

- a) The document known as the Building Code of Australia (BCA), Part D3, sets down the "where, when and in which classes of buildings" access and facilities have to be provided. Section F2.4 covers the provision of amenity in buildings for people with a disability.
- b) The regulations call upon another document known as Australian Standard (AS), 1428.1-1993, which is the technical design standard for "how" the required access should be provided, to ensure that people with disabilities are afforded the same opportunities to use buildings, gain employment, be entertained and enjoy recreation, as non-disabled people.

The cornerstone of this technical standard is the concept of a "continuous, accessible path of travel to or within a building and provides access to all required facilities". This means that an adult will be able to move equally well through the public or street environment and the built environment independently, whether using a wheelchair, walking aids or just pushing a stroller. However, not all classes of buildings, people or situations are covered by these regulations eg. private home owners who want to make their homes more accessible.

Appendix 1 lists the various requirements per class of building.

### 2.2 Residential Development – Adaptable Housing

This chapter deals primarily with access to public places. However, residential accommodation for people with disabilities is an issue which should also be addressed through the planning system.

The Maitland Local Environmental Plan 2011 seeks to maximise choice in the local housing market. As our population ages over time, it is likely that there will be an increasing demand for accommodation for people with mobility handicaps.

"Barrier-free" or "accessible" housing has traditionally been considered separate from "mainstream" housing supply. Custom designed dwellings to suit persons with disabilities can therefore be difficult to obtain, because they have rarely been considered in domestic building design.

This chapter seeks to address this issue by encouraging both home builders and designers of medium density housing, to consider adopting "adaptable design" principles. This means making provision in new dwellings for adaptation as an access friendly dwelling. This would generally comprise larger bathroom sizes, door openings, corridor width and no stairs.

Adaptable design can help avoid the personal and economic costs that accompany social dislocation when people have to move into institutional care. It can also assist people with temporary disabilities or young families, and people with disabilities visiting homes of relatives and friends in the City. Finally, adaptable design should help reduce household accidents.



### 3. DESIGN GUIDELINES

#### 3.1 Planning Principles

- a) To ensure all new developments are constructed to accommodate the needs of those people who may use the services that the proposed landuse may provide.
- b) To ensure people with a disability enjoy the same level of access, both in gaining entry to and moving within, those buildings which meet a high public demand.
- c) To ensure those landuses which provide a service which is likely to attract a larger proportion of people with a disability, adequately provide for the needs of these people.
- d) That the provisions of continuous access path of travel to and within a building is the primary principle.
- e) The secondary principle is the provision of car parking and other amenities.
- f) To ensure that all existing commercial buildings in Maitland are upgraded to meet the primary principle of the Plan, over time.

#### 3.2 Enhanced Requirements

Where development of the following landuse types are proposed, the enhanced standards shall apply:

- Entertainment facilities, clubs
- Halls let for public hire
- Large retail centres (ie. > 2500sqm)
- Medical facilities
- Commercial activities or facilities catering for public needs, ie. post office, government office, railway station, bus interchange, etc.

Where it is proposed to extend or upgrade an existing facility, every attempt should be made to meet the enhanced standard. Only where it can be clearly shown that meeting the enhanced standard would be unreasonable or unnecessary would an exemption apply.

The enhanced standards are set out in Australian Standard AS 1428.2 - 1992. The principle differences between the two standards are as follows:

	<b>AS 1428.1 General Requirements</b>	<b>AS 1428.2 Enhanced Requirements</b>
1. Walkways	1,100mm wide	1,200 mm wide
2. Ramps Gradient of 1 in 14 1 in 19	Landings: every 9m every 14m	Landings: every 6m every 14m
3. Intersection Detail	Not included	Included (current MCC Standard)
4. Handrails	One rail	Two rails

5. Door Openings	760mm	850mm
6. Sanitary Facilities		* 1,900 x 2,300 mm
WC Min Dimensions		* Increased Dimensions
Circulation	1600 x 2,000 mm	* Emergency Button
Showers/Urinals		* Unisex WC in Public Places

a) *Carparking*

The Building Code of Australia requires one designated disabled carparking space to be provided in commercial developments where ten or more vehicle spaces are required to be provided by Council's carparking code. A second space is required above 100 spaces. While this provision is adequate for most landuses, it is inadequate for medical facilities, entertainment complexes, large retail complexes, clubs and public halls. These landuses are likely to generate a higher demand for disabled facilities and thus the ratio of designated disabled parking to non-designated disabled parking should be increased. In some circumstances the provision of a number of wider non designated carparks may suffice.

Council's enhanced carparking standard is as follows:

<b>Medical services including community health centres, etc</b>	One space per two to five surgeries (or equivalent) Two spaces for six or more surgeries (or equivalent)
<b>Entertainment facilities, clubs &amp; public halls</b>	Three spaces per one hundred carparking spaces
<b>Large retail complexes (ie. &gt;100 spaces)</b>	Three spaces per one hundred carparking spaces
<b>Railway Stations</b>	Three spaces per one hundred carparking spaces

3.3 Car Parking Design

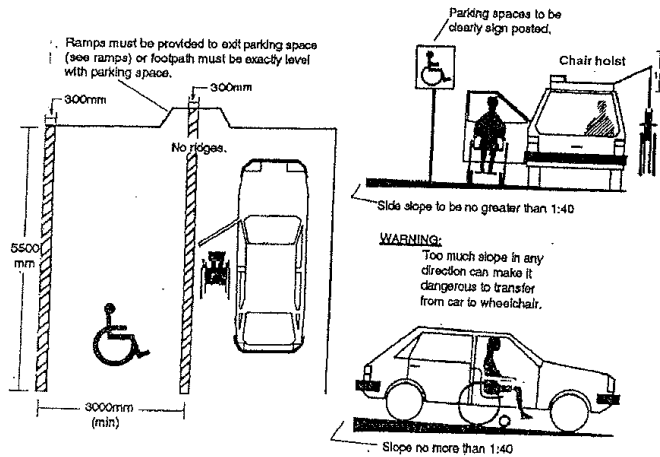
People with a disability who drive their own cars, need extra space in the parking bay, along the side of their car, to get into and out of their vehicles. In some cases the loading/ unloading of mobile wheelchairs will be carried out from the rear of a vehicle. Thus, disabled spaces should be located where traffic flow at the rear or side of the car parking space is controlled. (See sketch below).

This is particularly so for people who carry their wheelchair on the roof and use a hoist to raise and lower it into position. The hoist takes up room as it first swings the chair up, then out and finally down between the open car door and the car seat from its stationary position on the roof. If car parking is provided in a garage or parking station, there should be sufficient ceiling height to allow use of a hoist ie. 2500 mm. (See AS 1428.2 clause 14.2).

The placement of the designated parking bay/s needs to be as close as possible to the accessible entrance because fatigue is often a problem for people with



mobility disabilities. It is also better to have parking spaces as close as possible for when the weather is poor. Where parking bays are within buildings the designated bay /s should be located close to the elevators.



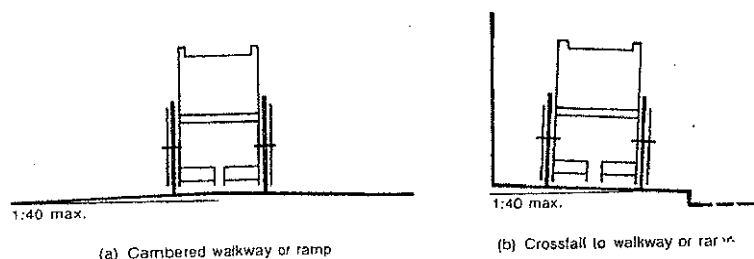
### 3.4 Pathways

Pathways refer to any external pathway or footpath which provides access to the entrance of a home or building. It should provide a comfortable grade no steeper than 1 in 14. Ramps and pathways should have a slip-resistant surface with a texture that is traversable by a wheelchair.

Pathways should be provided with landings except when the pathway grade is flatter than 1 in 33. Some people are easily fatigued and need to rest and regain their strength before continuing their journey. Landings should therefore be located at appropriate intervals and the grade of the pathway between landings should always remain constant.

Where at least one side of a pathway is bounded by a kerb with the handrail, or a wall with a handrail, the landing intervals can be set further apart.

Where no kerb and handrail, or wall and handrail is provided, the ground which adjoins the side of the pathway should follow the grade of the pathway and extend horizontally for 600 mm. This horizontal width is enough to warn a person with a slight problem that they have veered off from the path and gives them time to avoid possible danger.



MAXIMUM ALLOWABLE CAMBER AND CROSSFALL FOR RAMPS AND WALKWAYS

### 3.5 Ramps

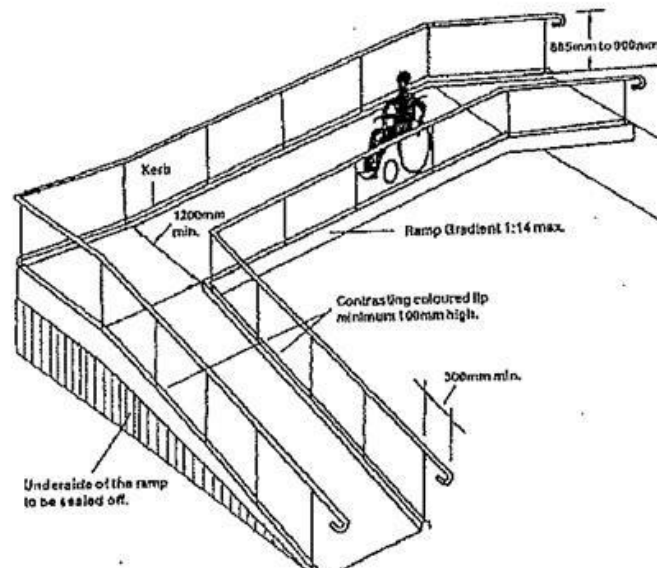
This refers to any inclined pathway with a grade steeper than 1 in 20 but not steeper than 1 in 14.

Where a ramp is longer than 1,200 mm, eighty per cent (80%) of people using wheelchairs can negotiate the 1 in 14 grade independently. However, for longer ramps they need a landing every 9 metres. As gradients become less steep, people's energy expenditure decreases and the landings can be spaced further apart. Ramps should also be provided with landings at the top and at the bottom and at appropriate intervals. These provide level areas for people using wheelchairs to manoeuvre and properly adjust their angle of approach when entering and leaving the ramp. They also act as a guide for people with sight problems to correctly orientate themselves. For safety, the grade of ramps between all landings should remain constant.

Ideally, all ramps should be provided with both kerbs and handrails on both sides, for safety reasons. Care should also be taken to ensure that rails do not intrude into any space where they could cause obstructions.

**ANGLES OF APPROACH:** These refer to the angle between the centre line of travel along a ramp, pathway or on a landing and the centre line of an adjoining path of travel.

You should remember when planning to construct an access way that an 8 mm deflection of one wheelchair wheel from the ground surface is the most that can be safely tolerated by the majority of users and still remain safe. This means that when one ramp joins another ramp which has a different grade but is in the same line of travel, all four wheels will remain on the ground. However, when the grade and line of travel are different, the result is a mismatch where the two ramps meet and an accident can occur unless a suitable angle of approach has been built in.





**CURVED RAMPS AND PATHWAYS:** If you need to construct a curved access way you should ensure that it has an appropriately designed inside curve, one which matches the chosen grade and allows for safe travel on curved ramps and pathways.

Landings should also be included at the appropriate distance for the grades. Remember, if the radius of this inside curve is not made as wide as is possible then wheelchairs, strollers, etc. can become uncontrollable. A tight inside curve causes difficulties for people who use assistive walking devices too. Where crossfall or a sideways slope is provided, it should fall towards the centre of curvature of the ramp or pathway.

**CAMBER AND CROSSFALL:** These terms refer to the sideways slope (to the direction of travel) of a pathway or ramp. Camber and crossfall are generally used for water drainage. The camber and crossfall of ramps and pathways should not exceed the ratio of 1:40.

**JOINING OF SURFACES:** Wherever pathways or ramps join surfaces of a different type or grade, there should be no bumps or crevices at that point where the surfaces meet which could impede smooth forward progress by a person with any type of disability. Sliding door tracks should therefore always be recessed, and special care should be taken where a carpeted surface meets a tiles surface to ensure that accidents cannot occur.

**KERB RAMPS OR STEP RAMPS:** A kerb ramp is an inclined pathway not longer than 1,200 mm with a grade no steeper than 1 in 8. Kerb ramps are usually located at the end of footpaths where a road crossing is required. Step ramps have the same dimensions as kerb ramps but can be located in, or instead of a step, other than a kerb.

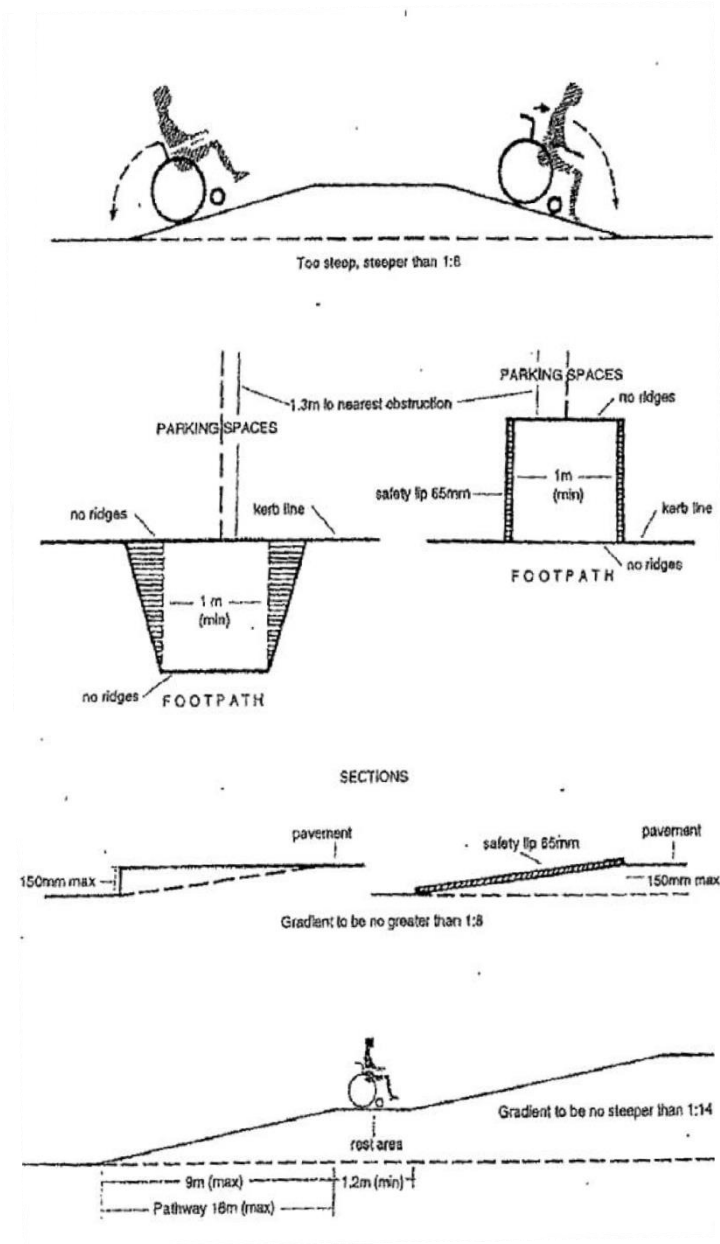
The grade of 1 in 8 has been found to be safe so that people in wheelchairs do not tip over when travelling on the ramp. The width of 1,330 mm for the landing at the top of the ramp will allow a person travelling along the footpath to turn and be in the direction of travel of the ramp before starting the descent.

One feature which can assist visually impaired or blind people is the rough brooming or similar texture or colour change at the top and bottom of the ramp to indicate where the ramp begins and where the direction of travel is across the road.

The abutment of surfaces at the top and bottom of the kerb ramp or step ramp should reflect the suggestions contained in the section "Joining of Surfaces". The sides of the ramp or step ramp should be graded at 45 degrees in the direction of travel.

Street ramps which continue the line of movement of the footpath are preferred. A corner ramp is potentially very dangerous for the visually impaired or blind and for people who use a wheelchair. People with reduced vision can easily become disorientated and find themselves in the middle of the intersection amongst traffic rather than safely across the road. People using wheelchairs are constantly endangered when confronting cars making ninety degree turns.

**LANDINGS:** This term refers to a flat surface, with a grade not steeper than 1 in 40. Potential problems of access can arise when doorways open into landings. The length of landings at pathways and ramps should not be less than 1,200 mm.





### 3.6 Intersection Details & Kerb Ramps

The design of kerb ramps and crossings at road intersections is to be in accordance with Council guidelines. The most critical issues are to ensure there is:

- a smooth even surface along the path of access across the roadway,
- the kerb ramp is no greater than 1:8 with no lip at kerb edge, and
- the kerb ramps are aligned opposite each other.

While in some low traffic volume streets one ramp may suffice, two ramps should normally be provided. Details of Council's standards are available in the Manual of Engineering Standards (MOES).

### 3.7 Kerb Ramp Design Criteria

The following requirements/ guidelines apply to the design of kerb ramps.

- a) Width of splay may be decreased if necessary to clear public utilities.
- b) Street name signs, parking signs etc. to be relocated if necessary.
- c) The position of ramps may be changed from the preferred location where there are major obstructions (eg. power poles, telecom pits, drainage pits, hydrants, gas syphons etc.).
- d) Where it is impractical to position a ramp square to the kerb and gutter it may be positioned on a skew with the shorter side having a maximum grade of 1:8.
- e) Two ramps are to be provided at each corner.
- f) At acute angle corners where it is impractical to provide two separate ramps, construct one centrally located ramp.
- g) Where possible, ramps are to be located downstream from adjacent sumps.
- h) Ramps are to be located within the limits of existing pedestrian crossings.
- i) Concrete is to be a minimum of 20MPa.
- j) Ramp shall have a wood flat or coving- trowel finish carried to the edge of all sloped surfaces.
- k) In some high and low level footway situations the desirable gradient of 1:8 may be exceeded.
- l) Low level footway ramps will present problems to some users:
  - i. low set wheelchair footrests could scrape on the layback section;
  - ii) The 1:5.6 gradient of the layback may be too steep for some users to negotiate.
- m) Ramps are to be provided in conjunction with new concrete footway paving or new kerb and gutter at all intersections, including new subdivisions.
- n) Concrete in gutters in front of ramp is to have a rough brooming finish, or similar, applied to act as a tactile indicator for people with a visual impairment.
- o) The surfaces of the ramps and sloping sides should be slip resistant and of a colour that contrasts with the adjoining surfaces.

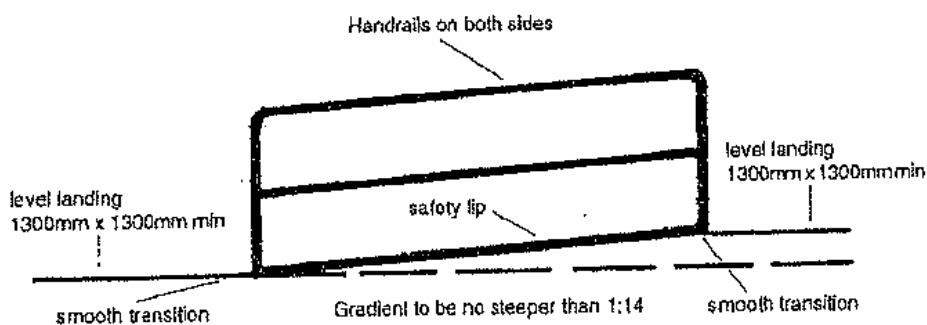
### 3.8 Handrails

This term refers to the handrails used in circulation areas such as corridors, passageways, ramps and stairways which enable a person's continuous movement. Wherever there are one or more steps, handrails should be installed on both sides. This is particularly important in outdoor areas where rain on the surface of the stair treads and poor lighting can be hazardous.

Full round handrails are the preferred option. They should be between 30 mm and 50 mm in diameter and any exposed edges should always be rounded off to provide maximum ease of use and safety for people who must rely on them for support or guidance.

The top of the handrails should be between 865 mm and 900 mm above the stair tread or floor to provide the best support for the greatest number of people. The clearance between the wall and the inside edge of the handrail is crucial if people are to effectively grip the handrail. It should be a minimum of 50 mm from any wall. There should also be at least 600 mm of clearance above the top of the handrail.

Handrails should be securely fixed and rigid so they can easily support a person's weight, with their ends turned downwards for at least 100 mm and then returned in towards the side wall. This return is particularly important on the outside flight of steps for visually impaired or blind people to know on which side of the rail the steps being. There should not be any obstruction to the passage of a person's hand along the rail. It is also useful for handrails to be colour contrasted with the surroundings (with or light colour contrasts are preferable).





### 3.9 Stairways

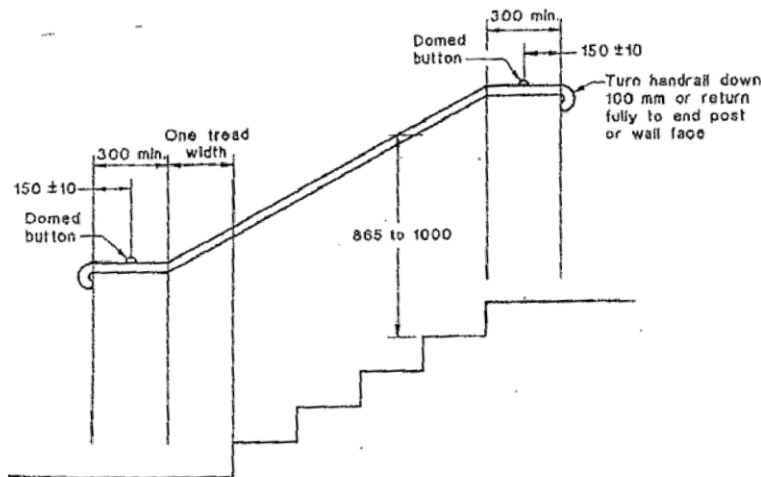
Properly designed stairs can provide independent access for many people who are aged or have mobility problems or are visually impaired.

There should always be closed risers between the stair treads to prevent a persons' foot from catching under the upper tread when they are climbing the stairs.

**VISUAL AND TACTILE CUES:** One of the features of stairs which causes problems is when the treads and riser are the same colour. For visually impaired or blind people this can be quite dangerous. There should be a strip of contrasting colour or texture at least 25 mm wide on the tread at the nosing. It is preferable for each step to have a strip - preferably white - but yellow will suffice.

**HANDRAILS:** Should be continuous throughout the stair flights and around landings. Wherever the handrail cannot continue without obstruction, a raised warning that the rail is coming to an end should be provided. This warning should be in the shape of a domed button for visually impaired or blind people at the top of the handrail 300 mm before that obstruction.

Handrails which end at the top or bottom of a flight of stairs should extend at least 300 mm from the riser at the top of the stairs and at least 300 mm plus one tread width from the riser at the bottom of the stairs. This clearly indicates to visually impaired or blind people that the step has finished. At no time should the top or bottom step, handrail or balustrade encroach into circulation spaces.



- NOTES:**
- 1 The dimensions indicating the heights of handrails are taken from the nosing of the tread to the top of the handrail.
  - 2 The 300 mm extension is not required where the handrail is continuous, e.g. on the inside of an intermediate landing.

DIMENSIONS IN MILLIMETRES  
**STAIRWAY HANDRAIL LOCATION AND EXTENSIONS  
 AT END OF STAIRWAY**

### 3.10 Entrances

In all buildings the main entrance should be made accessible and form part of a continuous accessible path of travel so that people with disabilities can enter and leave on an equal basis with other users. If making the main entrance accessible is not possible, the accessible entrance should be one which is customarily intended for use by the general public. The location of the entrance should be clearly and directionally signposted at all other entrances/ exits so that valuable energy is not wasted trying to find it - tactile signs are preferred.

Where revolving doors or turnstiles are installed in a building such as in some retail outlets or libraries, an alternative hinged or sliding door should be provided so that wheelchair users can use these services.

Doorways to all homes and buildings should have level access especially where the door has to be opened manually. If a threshold is required at the entrance, its height should not be more than 50 mm and a step ramp (inclined pathway) with a grade not greater than 1 in 8 should be provided.

This will result in a ramp of at least 400 mm long which is necessary for wheelchair users. The distance between the front and back wheels of a wheelchair is roughly 500 mm. Where the threshold extends outward for sufficient distance for someone to stand with both feet on it, there will usually be enough space for the front wheels to be on one level surface while the back wheels are on the other level surface with the ramp in between. This leaves the wheelchair user free to take one hand off a drive wheel to unlock, open, enter and then close the door. One problem which can arise is when the construction requires either the front or rear wheels to be on the ramp when the person has to take one hand off the drive wheels to unlock and open the door. The chair will probably pivot around the stationary wheel and swivel out of position.

### 3.11 Doorways

**CLEAR OPENING DOORWAYS:** The minimum width for a clear opening doorway is 760mm for a private dwelling. It is important to note that creating access in old houses with narrow hallways can often be facilitated by making door openings wider. This creates increased circulation space for manoeuvrability.

**CIRCULATION SPACES AT DOORWAYS:** Care should be taken when planning renovations to ensure that no doors open directly across the top of a flight of stairs or swing in a way which obstructs the top or bottom step. Where a door has to open into a stair landing, it should be recessed so that it does not interfere with people's movement on the stairs.

**DISTANCE BETWEEN DOORWAYS IN PASSAGES:** The distance between doorways should not be less than 1,340 mm unless the doors open into this space ie. in air locks, vestibules etc. in which case the distance you calculate should include the width of door leaf.

**DOOR HANDLES AND HARDWARE:** Generally door handles should be of the type that can be easily opened and closed by one hand. Wherever possible lever action handles are preferred because they do not require high levels of dexterity or effort to operate. They should be of the type which will not permit the hand to slip from the handle while using it.

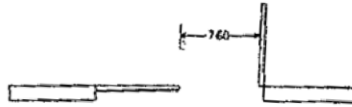
The clearance between the handle and the door measured at the centre of the handle should be between 35 mm and 45 mm from the door surface. Opening



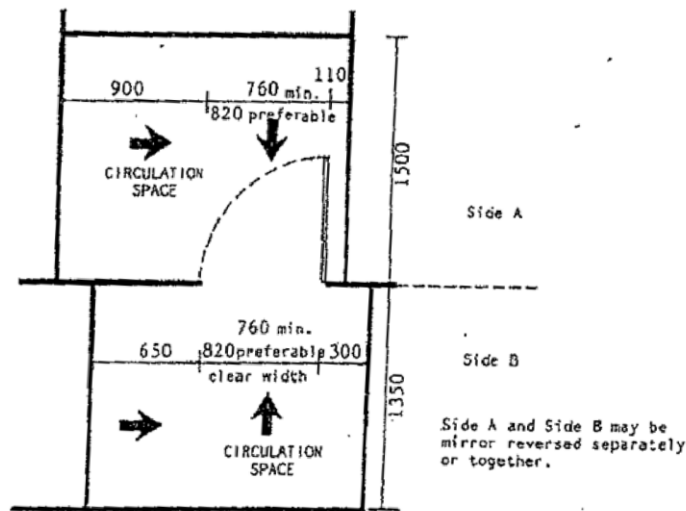
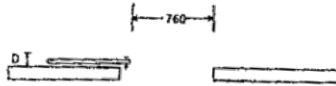
and locking controls for door should be placed between 900 mm and 1,100 mm above the finished floor (see AS 1428.1 Clause 11).

**SWITCHES AND POWERPOINTS:** These should all be consistently horizontally aligned with the door handles and other controls and not less than 500 mm from the internal comers. Rocker action, toggle or push pad switches with a recommended width of 35 mm are the preferred types. For people with severe finger and hand disabilities, these types allow convenient operation by arm or elbow.

Double Swinging Doors the same dimensions are to be used as only one door can be opened at a time.



Surface Mounted Sliding Doors the dimensions of Side B may be used on both sides of the door except dimension "D" must be added to the 1350mm distance.



ALL DIMENSIONS ARE IN MILLIMETRES AND ARE A MINIMUM.

↑ Arrows represent the direction of travel, a mirror image must be used for opposite direction.

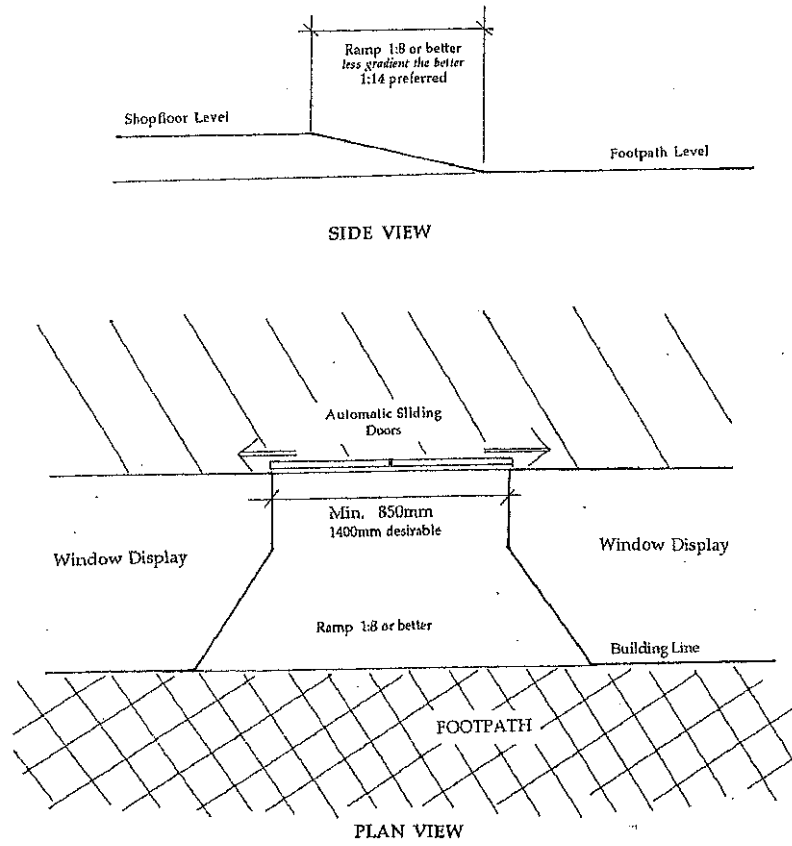
— Represents the nearest obstruction, such as a wall, bench, step, handrail etc. Nothing is to intrude into the enclosed area.

All doors must fully open.

Clear width of the doorway means the unobstructed opening of the doorway. A standard 820mm door gives approximately a clear width of 760mm depending on the design of the door.

3.12 Access to Shops

A survey of High Street shops carried out in 1995 identified seventy percent (70%) of premises had poor access for people with a physical disability. In order to improve access for shoppers in Maitland guidelines have been prepared to assist designers and shop owners when a shop refit is being contemplated.



*There should be no surface impediments eg. floor mats, lips, or slippery/uneven surfaces.*

**SHOPFRONT REDEVELOPMENT - ACCESS REQUIREMENTS**

3.13 Signs & Symbols

The International Symbol of Access, illustrated below, should be displayed where buildings are accessible.





**DIRECTIONAL SIGNS AND SYMBOLS:** The international symbol can have other pictograms, words or arrows placed beside it, but should not have any other information superimposed on it. It is preferable to use graphics rather than words to make a sign meaningful to people who cannot read or for those who cannot read English. Where words are used people with a low vision prefer large and contrasting letters. Signs inside buildings are very helpful for people with low vision if they are placed at a height so that they, and people who are seated, can read close up. Preference should be given to tactile signs.

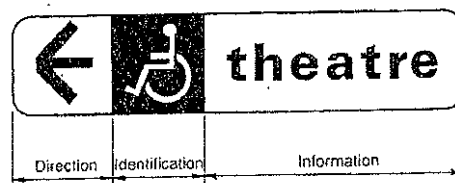
Wherever there are changes of direction necessary to reach an accessible facility a series of signs may need to be installed. Signs need to be consistently placed wherever a decision needs to be made.

This symbol can face either right or left to indicate the desired direction of travel. It should only be used to indicate a facility which meets the requirements of the Standard AS 1428.1.

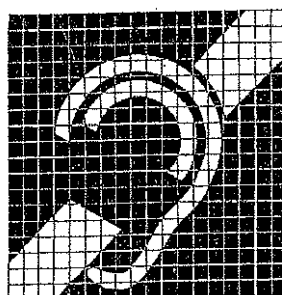
**TACTILE SIGN AND SYMBOLS:** Blind or people with major sight loss need to use touch to help identify letters, numbers and pictograms. These tactile identifiers can be either raised or recessed. A directory inside the entrance of a building is a good location for these signs and symbols and should be consistently placed at such locations.

Inside a building where there are a number of rooms, it is helpful if rooms have tactile numbers located within reach at the side of the door but not on the door itself. This ensures that if the door is left open people will still be able to easily identify the correct room.

Signs and symbols should be situated on a wall which provides a colour contrast. Signs should also be evenly lit and non-reflecting or otherwise dazzling to the eye. It is also important that signs are not placed where they can become lost against a confusing background.



**SYMBOLS FOR PEOPLE WITH HEARING IMPAIRMENTS:** The International Symbol for Deafness, as illustrated, should be used to indicate the presence of assistive hearing devices in places where large groups of people are assembled for entertainment, educational, religious purposes, libraries or public halls.



Assistive listening devices take a number of forms and are better included in a building at the design stage. This ensures optimal use of the system and allows for it to be discretely built in. This symbol could also be effectively utilised to indicate the presence of a flashing signal in addition to any auditory signal for devices such as fire alarms.

### 3.14 Assistive Listening Devices

At present building regulations do not contain requirements to provide assistive listening devices. However, as 7.4% of adult Australians have hearing impairments, the inclusion of listening devices into public assembly and entertainment buildings should be considered.

There are two major assistive listening systems which are normally incorporated into a building:

1. The Loop System: This is the priority system for a "single space" application for both users and building owners.
2. The Infra-red System: This system is necessary for spaced adjacent to those locations which are using Loop Systems. It is ideal, in sequence with Loops, for multi-theatre complexes.

The FM System: This system is fully portable and is ideal for guided tours in galleries, museums etc. and in any application where an audience moves about the premises. It may also be used in conjunction with the above applications.

Suggestion: Live theatres do not often have public address systems installed, however, a super-directional microphone mounted on the ceiling and focused onto the stage may be connected into a Loop, Infra-red or an FM System and utilising the "T" switch on the hearing aid.

One telephone in public use areas of buildings should provide access to hearing impaired people by providing a hearing aid coupler or a volume control.

Public facilities such as Council Chambers, Fire brigade, Ambulance, Police and other facilities providing vital information or services to the general public should consider providing TTY access for people who cannot use the usual telephone system. The TTY is a telephone typewriter which attaches to a telephone and functions rather like a facsimile machine.

### 3.15 Planning a Bathroom

The following suggestions are provided for people who are planning new, or renovating an existing bathroom in their home.

In general, a bathroom which needs to accommodate a bath, shower recess, hand basin and toilet should be 2100 mm x 2800 mm. Most average sized bathrooms can be adapted by ensuring that the shower recess has only two fixed walls and no hob (or kerb).

A shower curtain can be utilised to provide privacy and protection from any unwanted draughts. The door, if hinged, should open outwards so as not to interfere with floor space requirements. This is especially important if a person needs to manoeuvre to transfer from wheelchair to toilet or to manoeuvre under a washbasin.



In smaller spaces an en-suite bathroom can be provided which contains only a shower, wall basin and toilet. This can be made toilet/ shower chair accessible in an area of 1,900 x 2400 mm. The floor of this en-suite should be provided with a consistently gentle fall towards the drain. The door could either open outwards or be of the sliding variety. Another helpful hint may be to locate the light switch outside the door away from the wet area.

Design Suggestions:

- Use hobless shower
- Use a sliding door
- Use floor surfaces which are impervious to water and non-slip
- Use large rocker type light switches
- Make sure power points are conveniently located
- Skylight ventilation, extractor fans and heaters should be considered
- Grabrails to give steadying or stabilising assistance
- Position towel rails within reach
- Use lever type taps where possible.

For details of shower recesses, baths and toilets see the Independent Living Centre booklet:

*"Bathroom Planning for People with Disabilities".*

### 3.16 Planning a Kitchen

To date there are no standardised requirements for kitchen design or fittings. In general the suggestions included there are for the use of people in wheelchairs. This is because their requirements are more specialised than those of other people with disabilities and because a kitchen that is planned for a wheelchair user can be more readily modified for their use rather than the other way around. When designing for a person with a known disability the task is simpler because all the heights and spaces can be tailored for that persons' needs.

Design Suggestions:

- Try to ensure an unbroken sequence of surfaces between the food storage and food preparation areas and cooking appliances.
- Use L or U shaped layout with adequate circulation space
- Carefully consider the height and depth of bench tops, shelving and cupboards and the provision of knee spaces.
- Use single or dual lever action hot and cold taps with a mixer

For further design details, including exact dimensions and recommendations for the use of appliances, see the Independent Living Centre booklet:

*"Kitchen Planning for People with Disabilities".*

## **APPENDIX 1**

The classes of buildings which are covered by the above mentioned standards include:

Classes 3, 5, 6, 7, 8 9.

A route from the disabled parking to the entrance, public areas of the grounds, to all constructions for use by the general public within the allotment shall be made accessible to people with a disability.

Class 3

Sanitary facilities for the disabled tenants, including a shower, shall be provided as described in the following - 10 to 49 units, one unit shall be suitably designed for the disabled, thereafter 1 additional unit per 50, up to a limit of three.

Classes 5, 6, 7, 8.

Disabled toilets do not have to be provided if the building has a floor area of less than 500 square metres. If the building has a floor area greater than 500 square metres a unisex facility shall be provided.

Class 9(a).

The sanitary facility shall be suitable for use by the disabled or a separate unisex facility shall be provided.

Class 9(b).

A unisex toilet shall be provided for the disabled.

Class I(a)

In the case of a public toilet - A unisex disabled sanitary facility shall be provided and shall have an accessible route, suitable for the disabled, to the facilities which it serves.



## C.2 – Child Care Centres

### 1. INTRODUCTION

#### 1.1 Preamble

The increasing development of child care centres brings with it the challenges of integrating a land use with particular environmental impacts and requirements into an established or developing residential community or activity centre. Guidelines are needed to ensure that developers consider site selection criteria to minimise impacts such as traffic generation and parking, acoustic and visual privacy on adjoining development as well as providing an appropriate space for the children in their care.

#### 1.2 Application

All land within the Maitland Local Government Area where child care centres are permissible under the Maitland Local Environmental Plan 2011.

This chapter applies to:

- The construction of a new purpose built child care centres
- The expansion or alteration of an existing child care centres
- The conversion or adaptation of an existing building to a child care centres.

This chapter is not intended to apply to home based child care establishments, occasional care centres, including those established in shopping centres, or out of school hours (OOSH) facilities.

#### 1.3 Purpose

- To give detailed guidance to people wishing to develop child care centres within the Maitland Local Government Area.
- Indicates Councils objectives and policies for child care centres which can form a basis for negotiation should a departure from the provisions of this plan be sought.

#### 1.4 Objectives

- the provision of a wide range of high quality and flexible child care centres which meet the needs of the community.
- that child care centres are located and designed so as not to pose a health or safety risk to staff, children or visitors.
- that sites containing child care centres are appropriate for that purpose and provide a functional and pleasant environment for users.

- that the amenity of adjoining neighbours to the child care centres is maintained.
- that child care centres are located with adequate parking and minimal impacts on the local area in terms of traffic generation.
- that child care centres integrate into the existing residential environment and are unobtrusive in terms of size, bulk, height and landscaping.

### 1.5 Other Licensing Requirements

The construction of new child care centres, the expansion of existing child care centres or the conversion of existing buildings into child care centres also require a licence to operate from the NSW Department of Community Services (DoCS) under the Children and Young Persons (Care and Protection) Act 1998 and the Children's Services Regulation 2004.

It is essential that applicants liaise both with DoCS and Council early in the planning process in order to eliminate potential design flaws and ensure that the proposal satisfies the requirements of any other relevant legislation, LEP, DCP, Guidelines or Policies.

This policy is intended to be complementary to DOCS requirements. It identifies particular issues over which Council has care and control. Whilst DOCS requirements are not reiterated in any detail in this plan, it must be noted that Council will not grant approval to any proposal which is not supported in principle by DOCS and similarly, initial support from DOCS does not guarantee Council approval.

Applicants are advised that Regulation 16 of the Children's Services Regulation 2004 requires that the site plan of the premises at which the service is to be provided is drawn by a person who is an architect within the meaning of the Architects Act 2003 or who is accredited by the Building Designers Association of NSW Inc. in relation to the design of the class of buildings concerned.

A flow chart of the process for obtaining development approval is included as Appendix 1.0 whilst a list of common errors in the design of child care centres identified in Families at Work's Child Care Study for Maitland City Council is included as Appendix 2.0.

### 1.6 Community Needs Assessment

An essential component in planning a commercially successful child care centre is a community needs assessment. A feasibility study, ensuring that the service to be offered by the proposed child care centre will be relevant to the needs of the community should be undertaken by the applicant in the preliminary stage of the project in order to ensure the ultimate success of the project.

Generic formulas to determine the number of child care places required based on population numbers should be considered as an approximate guide only and applicants are advised to refer to Council's Review of Child Care Services – 4 March 2005 prepared by Families at Work and Appendix 3.0 for further details.



## 2. DEVELOPMENT

### 2.1 Location

#### *Objectives:*

- a) To ensure that child care centres provide a safe and healthy environment for staff, children and visitors.
- b) To ensure that the child care centre is compatible with adjoining land uses in terms of air and noise pollution, traffic and parking.
- c) To ensure that the child care centre is consistent with the objectives of the zone within which it is located.

#### *Recommendations:*

To ensure minimal impact on adjoining properties child care centres should ideally be:

- d) located in close proximity to community focal points such as shopping centres, educational establishments – particularly infants or primary schools, community facilities or recreation facilities.
- e) within easy and safe walking distance of public transport.
- f) located on corner sites or sites that are adjacent to open space.
- g) located (if within residential areas) on properties which have minimal common boundaries so as to reduce noise and privacy impacts on adjoining neighbours
- h) situated on sites with a minimum gradient. Steep sites have the potential to amplify impact on adjoining properties whilst constraining the availability of level play areas.
- i) Should it be proposed to locate a child care centre within the location of existing telecommunications infrastructure, applicants are advised to refer to the NSW Telecommunication Facilities Guideline including Broadband (NSW Department of Planning, July 2010) to ensure compliance with location requirements.

#### *Development Controls:*

- e) To ensure that child care centres provide a safe and healthy environment for staff and children, Council will not consider any application that proposes the location of a child care centre:
  - i) within 200m of a service station unless the application is supported by a preliminary hazard analysis (PHA) under State Environmental Planning Policy 33 and a risk assessment (biophysical and societal) taking into account the sensitivity of the use.

- ii. within 125m of a classified road (as defined in the MLEP 2011) without the submission of a report detailing the results of air quality and noise level testing.
  - iii. within 100m of heavy industry (as defined in the MLEP 2011) without the submission of a report detailing the results of air quality and noise level testing.
  - iv. within 100m of rural industries, swamps or creeks
  - v. within 100m or in view of a sex services premises or restricted premises
  - vi. within an aircraft noise exposure level area from the aerodrome that is 20ANEF or greater
  - vii. within 100m of above ground high voltage transmission lines, unless the application is supported by a hazard risk assessment which addresses the potential impacts on human health.
- f) Whilst child care centres are a permitted land use in a number of residential zones under the Maitland LEP 2011, they are also a commercial activity which in turn must not result in any adverse impacts upon the residential environment. In this regard Council will limit the size, location, operating hours and other matters as necessary to ensure that a proposed child care centre is consistent the zone objectives, that is, the proposal is compatible with the character of the area and of domestic scale and character.

## 2.2 Parking and Accessibility

### *Objectives:*

- a) To ensure that locations of proposed child care centres enable safe and convenient access by both private and public transport
- b) Ensure that the effect of traffic and parking movements generated by the child care centres does not have a significant impact on the adjoining and surrounding street(s), therefore minimising inconvenience to the movement / transportation of nearby residents or business related activity.
- c) To ensure that off street parking areas are designed to retain and enhance the amenity and streetscape of the location.
- d) To provide safe and easy access to allow for access by pedestrians (with pram or stroller) and for the mobility impaired into, around and out of the child care centres.

### *Recommendations:*

- e) The traffic circulation system which serves the child care centre should be designed to allow safe drop off and collection of children in a clearly lit and convenient location catering for safe movement in a one-way direction for all vehicles. The design should take into account existing pedestrian and cycle routes, nearby traffic generators, subdivision layout,



street design, nearby intersections and access in and out of the car park from the street.

- f) Adequate car parking spaces must be provided to meet the needs of visitors and staff allowing equity of access and safe movement of all children and adults to and from the child care establishment without significantly modifying the visual quality and character of the streetscape.
- g) Note that in general, child care centres should be located on Council's Collector or Distributor roads, and only those Local roads where it can be demonstrated that there will not be a significant impact to neighbourhood amenity.

*Development Controls:*

- h) A child care centre will not be supported in any area which has significant impact on amenity within a neighbourhood area. A Statement of Environmental Effects must consider the impacts of the child care establishment on the local community. (Refer to [Appendix 4.0](#) for details)
- i) Proposed child care centres located within a 500m radius of an existing child care establishment must include an assessment of the cumulative impact, including the requirement of a traffic study.
- j) Minimum onsite parking shall be provided in accordance with Child Care Centre parking requirements in NSW Road & Traffic Authority's, Guide to Traffic Generating Developments current at the time (currently at the rate of one space for every four children in attendance. Note that the minimum parking requirements in the RTA guide is inclusive of client and staff parking.
- k) Where requested by Council, a traffic and car park study should be provided demonstrating that the level of traffic generation by the child care centre is within the technical and environmental capacity of the existing road system. The traffic study should take into account major traffic generating developments (including other child care centres) within the affected area.
- l) Access and facilities for the disabled are to be provided in accordance with the Australian Standard AS 1428 Part 1 and Chapter C.1: Accessible Living in this DCP.
- m) One of the allotted vehicle parking spaces shall be provided for disabled parking / service vehicles close to the main entrance of the child care centre.
- n) Design of the car park surface and borders should incorporate adequate facility for people with prams or mobility aids.
- o) Parking area dimensions and parking layout shall comply with Australian standard 2890.1 – 2004 User Class 3 (being 2.6 metres wide). A minimum aisle width of 6.5m shall be provided.
- p) Where 90 degree on-site parking is provided adjacent to the building, pathway access between the car spaces and the building entry point. In such cases vehicle wheel stops must be provided.

- q) Carparks should be provided with separate entrance and exit driveways (adequately signposted) and separated by a distance that ensures safe, reasonable operation of the car park.
- r) A footpath must be provided not less than one (1) metre wide across the frontage of the child care establishment building and extend the full length of the car park where the footpath connects directly to the car park.
- s) Pedestrian access between public street frontage to the child care centre site and the building should be segregated from vehicle movement areas.
- t) A minimum of two (2) parallel car parking spaces should be provided adjacent to the child care centres building entrance to enhance convenience and safety for parents and children.
- u) Parking areas shall not be located within the building line setback unless the depth of landscaping between the street boundary and the car park is a minimum of 3.0m and the landscaping effectively screens the parking areas from the street. It must be demonstrated that car parking areas will not negatively impact on the streetscape and will not compromise the domestic scale and character of residential areas.
- v) Design of site elements and access ways between site elements are to cater for the needs of all users, particularly those with disabilities.

### 2.3 Acoustic Privacy

#### *Objectives:*

- a) To ensure that the noise pollution emanating from a proposed child care centre is acceptable for adjoining premises, particularly in residential areas.
- b) To ensure that surrounding premises and infrastructure does not expose children and staff to excessive noise.

#### *Recommendations:*

- c) Careful planning at the design stage is necessary, particularly in a residential area, to ensure that the competing requirements of providing adequate outdoor spaces for children to enjoy their activities and the right of adjoining neighbours to a reasonable level of noise amenity are resolved.

#### *Development Controls:*

- d) Where Council is of the opinion that noise has the potential to adversely affect the amenity of neighbouring premises, it may direct the applicant to submit with the Development Application a report prepared by an accredited acoustic consultant demonstrating that the LAeq(15 minute) noise level emitted from the site (including playground activity noise and indoor activity noise) does not exceed the Rating Background Level by



- more than 5dBA at the proposed site and predicted noise traffic levels are below the level set by the EPA in its Environmental Criteria for Road Traffic Noise.
- e) Where necessary, selected noise treatments such as acoustic cladding, windows and flooring or the provision of acoustic fencing or landscaping to shield nearby premises from the noise should not impact adversely upon the amenity of surrounding properties or the streetscape and character of the locality.
  - f) Where feasible, appropriate noise mitigation treatments shall be implemented to minimise noise being generated by arrivals and departures, including traffic noise. These treatments could include the careful positioning of arrival and departure access points away from residential property boundaries, the appropriate placement of buildings constructed on site to shield the noise or the provision of acoustic fencing or landscaping.
  - g) Outdoor playgrounds for the child care centre should not be located adjacent to the living/bedroom areas of adjoining residents and consideration should be given to noise minimisation related to hard-paved areas and pathways within the children's play area. All external pedestrian gates shall be fitted with appropriate door closers to provide a slow and regulated closing of the gate to prevent the generation of impact sound.
  - h) For proposals that are located on or within close proximity to a main or arterial road, and/or railway line, a noise assessment must be submitted with the development application which demonstrates that the LAeq(1 hour) ambient noise level at any location within the boundary of the centre during the hours when the centre is operating shall not exceed the "Recommended Maximum" noise level indicated for "school playground" in the table "Amenity criteria" nominated in the EPA's NSW Industrial Noise Policy".

#### 2.4 Site Layout, Building Form and Appearance

##### *Objectives:*

- a) To ensure that the design of the building for a proposed child care centre is sympathetic to the topography and natural features of the site whilst the detailing and finishes utilised externally must reflect the character of the existing neighbourhood and streetscape.
- b) To ensure that in residential areas the building is in character with the surrounding residential areas in terms of bulk, scale, size and height.

##### *Development Controls:*

- c) In established residential areas, development proposals for new buildings must have due regard to aspects such as scale, height, bulk, form, density and appearance to ensure that development is appropriate to its

- surroundings and will maintain and enhance the streetscape character and the general amenities of the locality.
- d) A development application will need to demonstrate that the site layout would not adversely affect adjoining or opposite properties by way of noise, light, smell or general activities.
  - e) A detailed site analysis plan must be provided with any development application showing the location and proximity of adjoining areas of private open space and habitable room windows to any residential properties.
  - f) The front setback of a child care centre in a new residential area should be 6m. In all other areas or in older residential areas the front set back should be the average of the existing setbacks of the two properties on either side of the site.
  - g) The design and layout of the child care centre must respond to the character of the existing neighbourhood and streetscape. Existing residential character of the locality must be maintained through the use of appropriate finishes material, landscaping, fencing and plantings.
  - h) The child care centre must have a domestic scale and character from public view in all residential zones.
  - i) The design of buildings should relate to the slope of the land to minimise earthworks and disturbance to the land.

## 2.5 Landscaping and Planting

### *Objectives:*

- a) To utilise landscaping and planting for its qualities of shading, screening and decorating outdoor areas.
- b) To provide an attractive natural environment for the users of the site, particularly in the playground area.
- c) To provide a high visual quality to the site.
- d) To preserve and enhance amenity and streetscape of the neighbourhood by providing adequate tree retention and tree planting on the site.

### *Development Controls:*

- e) Development Applications for child care centres must include a detailed landscaping and planting scheme showing existing and proposed planting (including a schedule of species). Appropriate landscaping / planting is to be used to provide screening and privacy to dwellings and private open space areas on adjoining sites; to soften car parking areas and to enhance the visual amenity of the development in the streetscape..
- f) Existing vegetation and other natural features, particularly mature trees shall be preserved on the site wherever possible.
- g) Appropriate use of planting along the street frontage is encouraged to complement the neighbourhood streetscape.



### 3. DEFINITIONS

**Arterial roads** predominantly serve longer distance travel within a district and through traffic from one district to another, and form the principal avenues of communication for metropolitan scale traffic movements. They include limited access roads and parkways (or freeways) having full access control and grade separated inter-sections. A small number have higher levels of property access for urban design reasons or reflect the planning and design parameters of the time of their construction. Arterial roads generally have a speed environment of greater than 60km/h.

**Child Care Legislation** means the Children and Young Persons (Care and Protection) Act 1998 and the Children's Services Regulation 2004

**Collector roads** collect and distribute traffic from access streets, linking to the distributor roads within the neighbourhood. They can also provide secondary connections direct to the external arterial road network. Traffic volumes are compatible with direct property access. Collector roads generally have a speed environment of 50km/h.

**Distributor roads** collect and distribute traffic within residential, industrial and commercial areas. They form the link between the primary network and the roads within local areas and should carry only traffic originating or terminating in the area. The volume of traffic carried is constrained by environmental objectives - safety and traffic noise - rather than road geometry and reflects the limited area that they serve. Direct property access is still permissible but the level of traffic may dictate that access and egress arrangements should be such that vehicles can exit properties in a forward direction. Distributor roads generally have a speed environment of 60km/h.

**Licence** is defined as a licence that has been granted under the Act and is in force.

**Licensed Places** is defined as the number of places that a license that has been granted for.

**Local roads** are generally streets where the residential environment is dominant. Traffic volumes and speed environment (50km/h) are low. Roads are narrow with a carriageway width in the vicinity of 6-8m. They would generally connect only to a collector road.

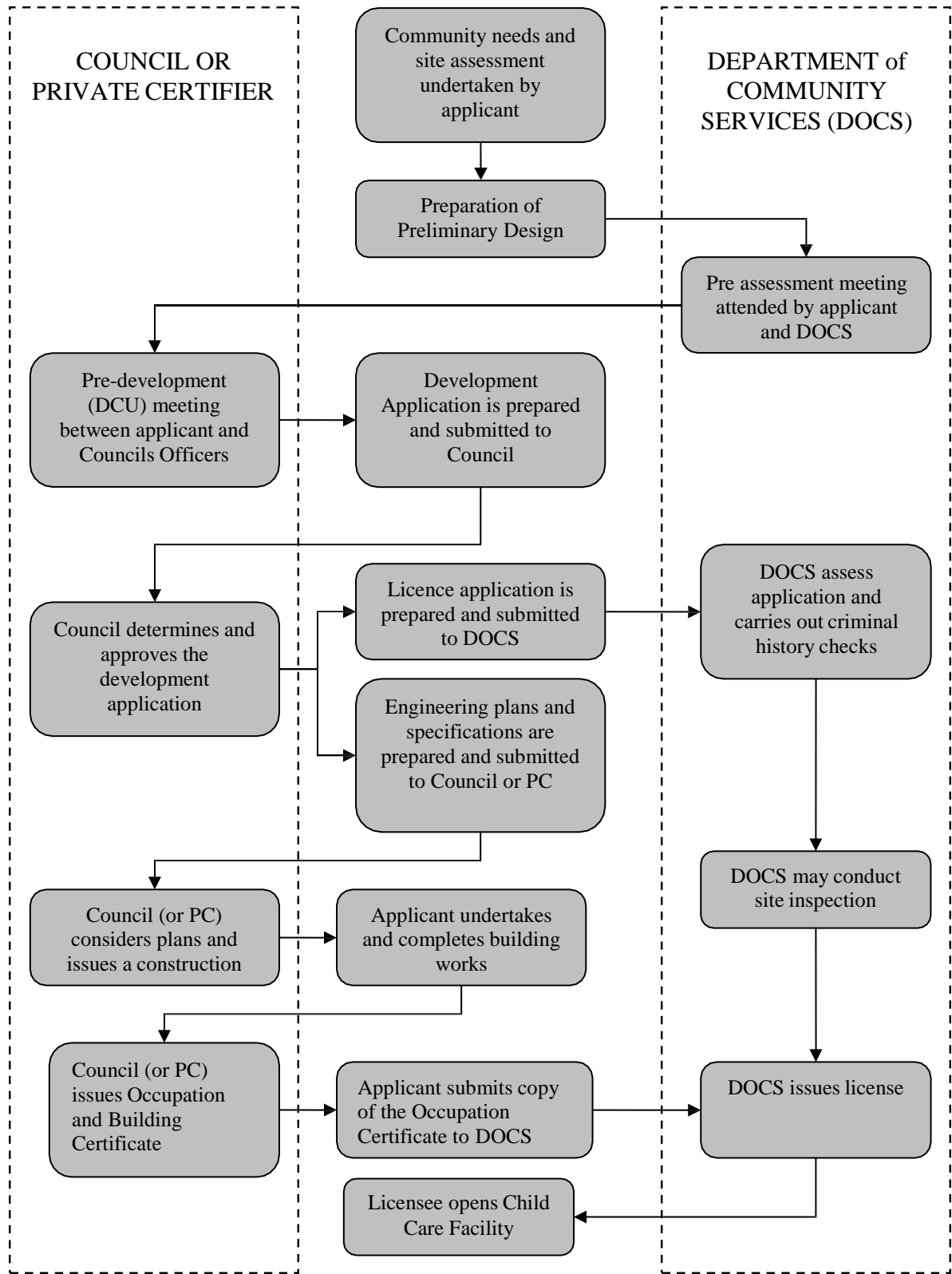
**Mobile Children's Services** is a children's service that visits specific premises, areas or places at specific times for the purpose of providing the care.

**Out of School Hours Care (OOSH)** provides care before and after school and during vacations for students up to 12 years of age. The care of children over the age of six is not regulated by the NSW DOCs although a Code of Practice is available.

**Premises** includes a structure, building, vehicle, vessel or place (including a public or other place), whether built on or not, and any part of such a structure, building, vehicle, vessel or place.

# APPENDIX 1

## FLOW CHART FOR ESTABLISHING A NEW CHILD CARE CENTRE





## APPENDIX 2

# COMMON DESIGN ERRORS MADE IN RELATION TO PROPOSED CHILD CARE CENTRES

(from Child Care Study for Maitland City Council by Families at Work 2005)

### Poor visual supervision

- shape of outdoor play space
- entry to centre not visually able to be supervised by staff (intruders)
- design/location of nappy change area
- children's toilets not immediately adjacent to outdoor play space, as well as indoor play space

### Trying to achieve maximum number of children in minimum space –

- large car park and very small outdoor play area for children
- backup facilities too small – kitchen, staffroom, storage (indoor and outdoor) – no minimum size required in Regulation
- inadequate space for sleeping rooms for babies – inadequate space between cots (cross-infection, access, egress)

Egress – regulation requires gates at top and bottom of any stairs; recommend no approval of playrooms other than on ground floor, or require ramps rather than stairs for egress (better for disability access as well)

Rendering areas inaccessible to children without compromising egress requirements, eg kitchen, laundry, staffroom, exit to carpark/road.

Inadequate provision of shade in outdoor play area.

No natural vegetation in outdoor play area (artificial turf and soft fall surface only) – landscaping required at front of centre, but none for children.

One sleeping room with too many cots – recommend more sleeping rooms with maximum of 5 cots in each (disturbance, cross infection)

Doorways in sleeping rooms need to be wide enough for a mobile cot to egress in emergency evacuation.

Inappropriate child bathing facilities – need infant bath for 0-2 years (not laundry tub - safety) and shower bath for 2-6 years (not just shower over bathroom floor waste - hygiene).

Laundry should be adjacent to playroom/nappy change facilities for 0-2 years (if remote, compromises supervision – takes staff member away from children)

Thoroughfare/access - should not have to go through children's playroom to access kitchen (deliveries, etc.); children should have direct access to their outdoor play area from their playroom (disruptive, thoroughfare takes up play space); parents should be able to access child's playroom directly, not through another playroom (disruptive, thoroughfare takes up play space)

Should be designated space in kitchen to store food trolleys.

Bottle preparation facilities, nappy change facilities and craft preparation facilities should be separate from each other – preferably in separate rooms.

Nappy change facilities need to be inaccessible to children – if in children’s toilet area, then child steps to the nappy change bench need to be retractable into cupboard.

Adult hand washing facility in 0-2 nappy change area needs to be in nappy change bench, immediately adjacent to nappy change mat, so that staff can wash hands whilst ensuring that baby does not fall from bench.

Need to provide commercial not domestic facilities in kitchen – stove, dishwasher, and mechanical exhaust.

Fire extinguishers need to be located/installed so as not to pose a hazard to children

Natural ventilation should be available throughout the centre – opening windows for cross ventilation.

Mechanical ventilation needs to be provided in areas such as nappy change, toilets.

Power points need to be inaccessible to children (1500mm above floor).



## APPENDIX 3

# COMMUNITY NEEDS ASSESSMENT FOR PROPOSED CHILD CARE CENTRE

Initial research to establish demographic and economic factors and trends which characterise the proposed community should be undertaken. Factors to be considered include:

- the total and projected child population of the community
- the workforce status of parents in the community
- business, industry and other employment opportunities within the community, which attract workers to the area
- the hours during which employment is available within the community
- future developments planned for the community, such as housing growth, and business, industry and other employment agencies' projected growth or decline
- current and planned supply of centre-based early childhood services in the community
- shortage or surplus of licensed positions at existing facilities within the local area.

Analysis of the above community features within the catchment area of a potential site will assist in the identification of the type of service and the number of licensed places which would be best suited within the local community.

## APPENDIX 4

# CHECKLIST FOR PROPOSED CHILD CARE CENTRE DEVELOPMENT APPLICATIONS

1. 5 Sets of plans at 1:100 scale or larger stamped by Hunter Water Corporation and, where necessary, Mines Subsidence including;
  - Site Analysis Plan (Refer Appendix 5.0);
  - A survey plan with contours, existing trees and structures and adjoining buildings being identified, for new developments;
  - Shadow diagrams as at 9am and 3pm on June 21 for new developments of two storeys or more or where there is significant potential for overshadowing of adjoining properties;
  - Landscaping plan;
  - Stormwater Drainage Concept Plans in accordance with Council's Manual of Engineering Standards;
2. 5 sets of A4 or A3 notification plans (Site plan and Elevations)
3. 3 Copies Specifications.
4. 4 Copies of a Statement of Environmental Effects to accompany applications including:
  - Statement of intention to obtain a DOCS licence.
  - A statement indicating the maximum number of children to be attending, the maximum number of babies/toddlers to be catered for and staff numbers.
  - A statement indicating the proposed hours of operation of the Child Care Centre, including times of use of the outside playground;
  - A statement indicating the maximum area of the Child Care Centre.
  - Heritage Impact Statement for all sites on which a heritage item is situated; or adjacent to or within the vicinity of land on which a heritage item is situated; or within a heritage conservation area.
  - Traffic Impact Statement including any initiatives intended to alleviate traffic impacts on the local area, especially during peak times. The statement should provide details of (a.) the local street layout between the proposed development and the nearest collector/distributor road and any additional local roads where access to a development must pass the proposed Child Care Centre (b.) residential building layout and building setbacks off the roads within the vicinity of the proposed Child Care Centre, (c.) road environment considerations including road width, intersection control, road bends/crests, existing road services and vegetation, (d.) traffic assessment detailing traffic generated by the proposed Child Care Centre and how the traffic may impact on accessibility, efficiency or road safety, the road carriageway width adjacent to the site, as well as details of traffic volumes and existing kerb-side parking demand for a typical design weekday during the peak arrival and departure times of children associated with the proposed Child Care facility.



- Waste Management Plan
- Noise and/or air quality assessment, where required by this policy or requested by Council.
- Environmental site contamination assessment; where required by this policy or requested by Council.
- Site analysis report, identifying adjoining land uses, compliance with zone objectives and amenity of the neighbourhood.

## APPENDIX 5

# PROPOSED CHILD CARE CENTRE SITE ANALYSIS PLAN REQUIREMENTS

A Site Analysis Plan for a proposed child care centre shall indicate:

- a. the location of any proposed buildings or works (including extensions or additions to existing buildings or works) in relation to the land's boundaries and adjoining development;
- b. floor plans of any proposed buildings showing layout, partitioning, room sizes and intended uses of each part of the building;
- c. elevations and sections showing proposed external finishes and heights of any proposed buildings;
- d. proposed finished levels of the land in relation to existing and proposed buildings and roads;
- e. proposed parking arrangements, entry and exit points for vehicles, and provision for movement of vehicles within the site (including dimensions where appropriate);
- f. proposed landscaping and treatment of the land (indicating plant types and their height and maturity);
- g. the location of the open play area, quiet play area, active play area and, if relevant, baby/ toddler play area within the playground;
- h. the location of equipment and facilities within the playground;
- i. details of boundary fencing to adjoining properties (including any proposed acoustic screens if relevant);
- j. proposed methods of draining the land;
- k. the location, boundary dimensions, site area and north point of the land;
- l. existing vegetation and trees on the land;
- m. the location and uses of existing buildings on the land;
- n. existing levels of the land in relation to buildings and roads; and
- o. the location and uses of buildings on sites adjoining the land.



## C.3 – Exhibition Homes & Villages

### 1. INTRODUCTION

#### 1.1 Preamble

Exhibition villages have become a more common way for the development industry to showcase the variety of dwelling designs.

There are a wide range of development issues which are required to be addressed to achieve a satisfactory planning outcome. These include the nature and type of exhibition villages, car parking provisions, consent period granted for such a development, inclusion of ancillary features associate with exhibition villages, provision of public amenities, appropriate signage and accessibility issues.

#### 1.2 Application

This chapter applies to all land within the Maitland Local Government Area where exhibition homes and exhibition villages are permissible with development consent under the provisions of the Maitland Local Environmental Plan 2011.

#### 1.3 Purpose

- a) To give guidance on the development of exhibition homes and villages within the Maitland LGA.
- b) To provide more detailed provisions than those contained in the Maitland Local Environmental Plan 2011 and includes desired outcomes and matters for consideration relating to exhibition homes and villages.

#### 1.4 Objectives

- a) To ensure that the intended site of an exhibition home or village is consistent with the amenity and character of the local area, or in the case of new release areas, the desired character. This will include consideration of building scale and density, noise, traffic and parking.
- b) To ensure that the traffic and car parking generated by the development does not adversely impact on the safety of residents in the locality.
- c) To ensure that the hours of operation of the exhibition home or exhibition village do not adversely affect the amenity of the surrounding residents.
- d) To provide for an appropriate range of support and ancillary uses within an exhibition village.

- e) To ensure that adequate public services are provided in exhibition villages to meet the demand of visitors and employees.
- f) To provide for an appropriate level of infrastructure for exhibition homes and villages within the staged development of urban release areas.
- g) To ensure that provision is made within exhibition homes and villages for essential utility services in conjunction with the proposed future use of the land.
- h) To limit the use of a dwelling house or houses for the purpose of an exhibition home or village to that of a “temporary use” in order to reflect the long term residential expectations and character of the area.
- i) To identify the changes (if any) required to occupy the exhibition home(s) at the conclusion of the consent period.
- j) To ensure that the amenity of residents is achieved and there is no conflict between residential occupation of dwelling houses and the operation of an exhibition home or village
- k) To allow signs to be erected or displayed only where they are compatible with the scale and character of the area and do not significantly detract from the local visual amenity.

## 2. DEVELOPMENT GUIDELINES

### Location

1. Exhibition homes and villages should only be located in areas where Council is of the opinion that the proposed development and ancillary activities are unlikely to cause a negative impact on the amenity of the area.
2. Exhibition homes and villages should be located on, and adjacent to, roads that provide a “feeder” function such as a “collector” or “distributor”. Direct vehicle access will not be permitted to classified roads.
3. Exhibition homes and villages should not be located in “access” and “local” streets (such as a cul-de-sac or a minor road) where the amenity of the street environment is considered to be within a “small, quiet residential area”.
4. Development of exhibition villages or homes in advance of residential land release should consider the desired amenity and character of the future residential area, and promote the objectives of any relevant structure or area plan.
5. Exhibition homes should be grouped within exhibition villages rather than distributed throughout urban areas.

### Access and Car Parking

6. A traffic impact assessment should be carried out and be submitted with applications for an exhibition home or village and should address the potential impacts on the road system in the locality.



7. The assessment or report should be detailed enough to enable Council's assessment of the cumulative impacts of exhibition homes and villages in the locality.
8. Off street car parking is to be provided to meet the parking demand generated by the exhibition home or village.
9. All car parking areas shall be constructed with a sealed compacted granular pavement, and conform to Council's Manual of Engineering Standards.
10. An exhibition home proposal should provide two off street car parking spaces, one of which should be constructed to "accessibility" standards in accordance with the Building Code of Australia.
11. An exhibition village proposal should provide a centralized car parking area within the village. There should be a minimum of two car parking spaces per home, provided in the centralized parking area. "Accessibility" parking in accordance with the Building Code of Australia and Council's car parking standards should be provided.
12. Concrete footpaths, in accordance with Council's Manual Of Engineering Standards, should be provided within the road reserve footway, along the frontage of the development site(s).
13. Stormwater runoff from carpark areas should be controlled to provide retention of flows on site, and acceptable discharge rates to the street drainage system, in accordance with Council's Manual Of Engineering Standards.

#### Hours of Operation

14. The hours of operation for an exhibition village or exhibition home, and ancillary uses shall be restricted to 9.00 am – 6.00 pm.

#### Ancillary uses

15. Ancillary uses include sales offices, home financing offices, and may also include public amenities such as a café and public toilets.
16. No uses related to the development, will be permitted on or adjoining the exhibition home or village which may constitute a nuisance to neighbouring residents.
17. All uses related to the development are to be ancillary to the operation of the exhibition home or village, and must only service the needs generated by the development.
18. Ancillary uses are to be limited to the following:
  - One sales office per building company
  - One materials display area per building company
  - One home financing service office per village
  - One café per village

19. The ancillary uses to an exhibition home are to be contained within the curtilage of the exhibition home. No café will be permitted as an ancillary use to an “exhibition home” development.
20. Public toilets are to be provided for all exhibition villages, at the rate identified in the Building Code of Australia. “Accessibility” standards shall apply to facilities.

#### Utilities and Services

21. The applicant should submit to Council evidence that adequate arrangements exist for the provision of, water, wastewater and energy utilities to service an exhibition home or exhibition village, and that those services are adequate for the ultimate future residential use.

#### Signage

22. All advertising structure must be erected on the site of the exhibition home or exhibition village.
23. The characteristics of the advertising structures must be compatible with the scale and visual amenity of the local area.
24. Advertising structures shall be limited to the following:
  - One flag pole per exhibition home or house within an exhibition village
  - One pylon sign per exhibition village.
25. Advertising sign details should be included in an application to Council for an exhibition home or exhibition village proposal.

#### Consent Period

26. Development consent for an exhibition home or village will be granted for a maximum operational period of 5 years.
27. At the conclusion of the consent period, the exhibition homes or homes within the exhibition village must be inspected to ensure that vehicle and pedestrian access to a public road complies with Council’s standards, that the building(s) comply with the Building Code of Australia, and that essential service infrastructure is in place.
28. No individual houses within an exhibition village may be occupied for residential use until the conclusion of the consent period for the village.



## C.4 – Heritage Conservation

### 1. INTRODUCTION

#### 1.1 Preamble

Maitland’s environment has value to us all as links to the past. Heritage items, Conservation Areas, archaeological sites and historic artefacts individually and collectively have profound importance. They provide a source of community identity, evidence of the evolution of society’s values, the impetus and inspiration for new ideas or the revival of the old. They also provide a wonderful source of aesthetic satisfaction and are an increasingly important economic resource.

An understanding of Maitland’s historic environment provides important background information to anyone considering development that may impact on a heritage item or a heritage conservation area. This information is attached as an Appendix.

#### 1.2 Application

This chapter applies to all heritage items, including heritage conservation areas, to which clause 5.10 in the Maitland LEP 2011 applies.

Matters relating to Aboriginal heritage significance are addressed in clause 5.10(8) in the Maitland LEP 2011, but are not specifically addressed in this chapter.

Clause 5.10 specifies when a development application is required. Where clause 5.10(3) stipulates when consent is not required, it is the responsibility of the applicant/owner to ensure that the proposed works satisfy the requirements of this subclause before undertaking any work.

Chapter B: Vegetation Management in this DCP also applies to any trees listed as a heritage item or any trees located within a heritage conservation area.

Specific guidelines relating to the Heritage Conservation Areas are contained in Part E: Heritage Conservation Areas. Where relevant, Part E should be read in conjunction with this Chapter and B: Vegetation Protection.

(Note: A number of terms relating to heritage are defined in the Maitland LEP 2011 for the purposes of interpreting clause 5.10).

#### 1.3 Purpose

To provide detailed explanation and guidance on Council's requirements in relation to heritage design and conservation matters.

#### 1.4 Objectives

- To assist owners and developers who are contemplating carrying out development that may impact on a heritage listed property or conservation area.
- To promote an attractive living and working environment for the community of Maitland, which builds on its particular identity.

## 2. DEVELOPMENT APPLICATION PROCESS

### 2.1 General Requirements

The content and range of issues to be addressed in a development application will depend on the heritage significance of the site and the impact the proposed development is likely to have. As a general rule, the greater the significance of the item or the potential impacts of the proposal, the more detail should be provided.

#### a) *Plan details:*

In addition to the standard requirements for all development applications (such as the preparation of a site plan) the following additional plan details should be shown where work is proposed on a heritage item:

- Plans, sections and elevations - drawn to scale, showing the extent of the proposed works by colouring or hatching. These drawings should show how the alterations or additions will affect existing buildings, structures and features, and must include a schedule of external finishes, materials and colours.

Where subdivision of land is proposed on land within a heritage conservation area or in the vicinity of a heritage conservation area, the plan details and supporting documentation should include the range of matters outlined in Section 7.0 below.

#### b) *Fire and Building Code of Australia (BCA) upgrading:*

The consent authority, when considering alterations and additions to buildings, or the change of use of a building, must consider the fire safety and spread of fire under the provisions of clauses 93 and 94 of the Environmental Planning and Assessment Regulation 2000. Information on fire upgrading for heritage properties can be found at the Heritage Office's Fire Advisory Panel's website at [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)



c) *Do I need a Consultant?*

For simple development proposals documentation can be prepared by the building owner or manager. Assistance can be sought from Council staff, including Council's Heritage Officer and/or the NSW Heritage Office where necessary. Statements of Heritage Impact for heritage items and/or preparation of development applications for complex proposals, or those which are likely to have a major impact on the heritage significance of an item or a Conservation Area, will usually require the assistance of a suitably qualified consultant who has experience in Heritage Conservation matters.

The use of specialist consultants who are suitably qualified and experienced in heritage matters can significantly reduce the amount of time taken in both the preparation of the development application and its assessment by Council. These time savings can far outweigh the initial cost of their services.

Council and the NSW Heritage Office can provide a list of consultants practising in heritage related fields.

Table 1 summarises the likely requirements for particular development proposals. Council staff should be consulted to determine the specific requirements for your particular proposal.

d) *Conservation Incentives*

Clause 5.10(10) in the Maitland LEP 2011 provides conservation incentives for the use of a heritage item or the land on which it is erected, even though this development may be prohibited under the LEP. Council must be satisfied that the development satisfies the criteria established under this clause in the LEP.

When considering a development application under this clause, Council may exclude the floor space of the heritage item from any calculation of floor space ratio or carparking requirements relating to the development application.

## 2.2 Heritage Impact Statement (HIS)

Clause 5.10(5) in the Maitland LEP 2011 provides for a consent authority to request the preparation of a Heritage Impact Statement (HIS) to assist in the assessment of a development application.

A HIS analyses the impact that proposed works will have on a heritage item or Conservation Area. It is usually prepared with reference to a Statement of

Heritage Significance. The HIS will often form part of the Statement of Environmental Effects usually required for a development application. It needs to be supported by sufficient information to allow Council to make an informed decision about the impact of the proposal. Together with supporting information it addresses:

- why the item or area is of heritage significance;
- what impact the proposed works will have on that significance;
- what measures are proposed to mitigate negative impacts;
- the range of solutions considered and evaluated, and why more sympathetic solutions are not viable.

The NSW Heritage Manual “Statements of Heritage Impact” is to be adopted for the purposes of preparing the HIS. The amount of information and level of detail required will depend upon the significance of the building, work or place the subject of the application, and the nature and extent of the work proposed. Applicants should determine, through pre-application consultation with Council staff, whether a HIS is required for a particular proposal.

Generally the process to be followed in preparing a HIS reflects the above mentioned points:

- a) The HIS first considers the heritage significance of the item, building, work or place that the application relates to. This significance should be described in a Statement of Heritage Significance. In simple terms this is a set of statements explaining what it is about the building or area that makes it significant. In the case of a component of a Conservation Area, the contribution that the building, work or place makes to that area must be described, as well as any individual significance it may have in its own right. In some cases there will already be a Statement of Heritage Significance, especially for listed heritage items.
- b) The HIS then describes in detail the work proposed. The work must be described in relation to its impact on the things that make the item, building, work or place significant. The reasons or necessity for undertaking the work need to be explained. A conclusion must be reached about the positive or negative impact the proposed work will have on the stated significance.
- c) The HIS must next describe the measures proposed to mitigate impacts (i.e. the philosophy and design of the works, the materials, finishes and colours to be used, or any other aspect of the work that has specifically taken aspects of heritage significance into account).
- d) The HIS must finally describe the range of options or solutions considered when designing and planning the work. Where more sympathetic solutions have been considered and rejected, adequate justification must be provided.
- e) The HIS should refer to relevant reference documents and policies such as the Burra Charter, any existing documentation regarding the significance



or status of the site, and any relevant Council Development Control Plan (DCP).

For simple or minor applications, the HIS may be able to be prepared by the owner or manager of the property. However, for listed items or for complex or major applications, a suitably qualified consultant, experienced in heritage related matters, will generally be required to prepare the HIS.

Examples of Heritage Impact Statements may be inspected at Council's office, and the NSW Heritage Manual contains more detailed information regarding Statements and their preparation.

### 2.3 Heritage Conservation Management Plan (CMP)

Clause 5.10(6) in the Maitland LEP 2011 provides for a consent authority to further require the submission of a Heritage Conservation Management Plan before granting consent to the application, where the findings from the HIS warrant this additional conservation outcome.

Together, the Statement of Heritage Significance, Conservation policy and management guidelines form what is known as a Conservation Management Plan.

A Conservation Policy looks at the constraints and opportunities arising from a Statement of Heritage Significance. Conservation Policies usually relate to a listed heritage item.

The Policy indicates how changes might be made to an item while still conserving and enhancing its significance. Usually a suitably qualified consultant with experience in heritage related matters will be required to prepare such a policy.

A further step is to prepare implementation or management guidelines for the future care and development of the item. These guidelines can address and contain maintenance plans, suggestions for adaptive re-use and potential for sympathetic alterations and additions.

The Heritage Council will not consider applications for extensive alterations to an item of major heritage significance (i.e. a State item or an item covered by an interim or permanent Conservation Order) unless it has already approved a Conservation Management Plan.

The preparation of a Conservation Management Plan need not be an expensive or lengthy exercise. The cost of preparation is often outweighed by the benefits gained through identification of the best opportunities for capitalising on the value of a heritage value of an item, and in obtaining early agreement and approval from authorities and the community to sympathetic changes. More information is available in the NSW Heritage Manual.

The use of a suitably qualified consultant, experienced in heritage related matters, will be required for the preparation of a Conservation Management Plan.

Typical contents of a conservation management plan include:

*Essential:*

- 1 a description of the place and its setting
- 2 a statement of the significant heritage values of the place
- 3 an assessment of the condition, management realities, threats, opportunities and other non-heritage issues relevant to conserving the place
- 4 a statement of the conservation principles on which the plan is based
- 5 a conservation policy which includes conservation objectives for the place
- 6 the conservation processes that will be used
- 7 strategies for conservation, with timing, costs and other resources required
- 8 controls on research and other actions that may affect the place
- 9 a list of people responsible for carrying out actions of the plan
- 10 an ongoing maintenance and monitoring plan and who is responsible
- 11 a process and timing for reviewing and updating the plan

*Non-essential:*

- 12 recommendations for making the significant values understood (interpretation)

## 2.4 Character Assessment

A Character Assessment is required where, in the opinion of Council, the proposed works do not warrant the preparation of a formal HIS. A Character Assessment may be prepared by the applicant/owner.

The Character Assessment should include the following, and be identified by the property description and the author's name and contact details:

- a) How old is the building/s proposed for alteration or additions, and what is known about its history? Try to ascertain the age of the building from any documents you may have such as the Land Title, or from the style of the building.
- b) Describe the main architectural features and characteristics of the building. List features such as what materials the building is made of, what the roof style is (i.e. hipped, gabled), the style of windows, whether it has a verandah.
- c) What is around the building or land? Describe the buildings that surround it and what they are used for.



- d) Describe what is proposed. Outline what alterations are proposed – what will the building be used for if the use is changing. Describe all structural and non-structural alterations required.
- e) Describe what efforts have been made to ensure the changes are sympathetic with the original building. List in point form. List also any previous work if appropriate. Outline if the proposal will improve the function of the building. Are the materials, colour and design compatible with the design of the original structure?
- f) Describe any impact of the proposal on any surrounding developments, and on the character of the locality. Outline if the changes are in keeping with the character of the locality. Have you taken into consideration the information in this Chapter that relates to the area in which your development is located?
- g) Describe any sympathetic solutions which were considered, but discounted for particular reasons. List alternatives such as different materials, colours, etc. and outline why these cannot be implemented.

## 2.5 Engineering Assessment

An Engineering Assessment will be required where it is asserted that the works proposed to a heritage item are required because part or all of the item is beyond repair or unstable. Works include alterations and additions to, and partial or total demolition of, a heritage item. An Engineering Assessment may also be required for partial or total demolition of components within a Heritage Conservation Area.

Preparation of an Engineering Assessment must be undertaken by a suitably qualified Structural Engineer with experience dealing with heritage related matters.

The assessment must address the following matters as a minimum:

- a) Detailed list of all structural defects or problems identified.
- b) the likely causes of such defects.
- c) a comprehensive range of solutions for such defects, where possible.
- d) the most appropriate solution(s) for the particular case, in the opinion of the consultant.
- e) where solutions are rejected, the reasons for rejection must be provided and justified.

The basis of investigative work and the final report should be to find feasible methods of repairing the building(s) for adaptive re-use, not to support demolition.

If demolition is recommended, adequate justification by way of explanation of the problems and the difficulties in repairing them must be provided.

## 2.6 Schedule of Works

A Schedule of Works will be required for any alterations and additions to a heritage item. The Schedule of Works must itemise the proposed work to the item, cross-referenced to appropriate drawings, and include a schedule of external finishes, materials and colours. In the case of an item of State significance, the Schedule of Works must detail all internal alterations.

## 2.7 Archaeological Assessment

An Archaeological Assessment will be required with a development application for any proposal which will disturb the surface of an Archaeological Site or Potential Archaeological Site. An Archaeological Assessment is a predictive study undertaken to:

- evaluate the probable extent, nature and integrity of the archaeological resource at a site;
- determine the significance of that resource;
- define the appropriate management solutions for that resource having regard to significance and statutory requirements.

Applicants must determine through pre-application consultation with Council staff, whether an Archaeological Assessment will be required for a particular proposal, and what it should address and contain.

### Initial Assessments

An initial (or baseline) assessment may be required by Council for non-listed sites which are considered likely to contain relics because of their location or use, or where it is unclear whether a development proposal is likely to impact on the archaeological features of a listed site. The initial assessment is a basic overview study to determine whether a particular site warrants further investigation (i.e. an Archaeological Assessment).

The level of research or investigation required for an initial assessment will vary depending on the nature of the site and the development proposal, but may include:

- a review of available historical information;
- some historical research;
- the identification of historical themes;
- a field survey/site inspection;
- preliminary conclusions about archaeological potential;
- preliminary significance assessment;
- an analysis of client needs and objectives;
- management recommendations including recommendations for further work.



An Initial Assessment can help determine whether or not there is potential for the presence of archaeological resources on a site, and whether further investigation is warranted. If it is considered that there is no potential, no further action may be required. Where potential exists, it is likely that an Archaeological Assessment will be required.

#### 2.8 Archival or Photographic Record

An Archival or Photographic Record may be required to document the existing structure if part or parts of the heritage item are proposed to be altered.

#### 2.9 Historic photographs or drawings

Historic photographs or drawings may be required, where available, particularly when the intention is to restore the item back to its former or original state.

#### 2.10 Other specialist reports

Other specialist reports may be required for particular proposals (e.g. historian).

### **3. OWNER RESPONSIBILITIES**

#### Wilful Neglect or Other Damage to a Heritage Item or Building in a Conservation Area

##### 3.1 State Government Provisions

The NSW Heritage Act 1977 and associated Regulation requires owners of a building, work, relic or precinct that is listed on the State Heritage Register to maintain minimum standards of maintenance and repair. The provisions relate to:

- a) weather proofing,
- b) fire protection,
- c) security, and
- d) essential maintenance.

The provisions do not require owners to undertake restoration works but, where works are needed, owners may apply for financial assistance through the Heritage 2001 funding program.

Where the maintenance and repair standards are not met and the heritage significance of the item is in jeopardy, the Heritage Council has the power to order repairs after consultation with the owner. These orders can be enforced if necessary, and owners prosecuted for failure to comply with an order.

##### 3.2 Local Provisions

All components of a Heritage Conservation Area including, but not limited to, listed heritage items contribute to its character, regardless of whether they are individually significant. It is for this reason that the controls relating to demolition are quite stringent, and will be applied consistently.

Applications for demolition of buildings where there is evidence of intentional neglect or damage are unlikely to be considered favourably.

Where Council is of the opinion that a building, work, or relic is unsafe or unhealthy, or poses some other risk to the public, the relevant provisions of the Local Government Act 1993 will be enforced to their fullest extent to ensure that adequate work is undertaken to remove such risk, and to avoid the necessity for demolition of the building, work or relic. Where additional work is required in relation to:

- a) weather proofing,
- b) fire protection,
- c) security, and
- d) essential maintenance

Council will request the owner of the building, work or relic to undertake such work to ensure the ongoing stability and preservation of significant fabric of the item or component. If such work is not undertaken, and particularly where the building, work or relic is a listed heritage item and its significance is deemed by Council to be deteriorating due to wilful neglect or damage, documentary and photographic evidence will be collected by Council, and used in future assessment of applications relating to the site.

Demolition of a listed heritage item or component of a Heritage Conservation Area is considered by Council to be a last resort action and, as stated above, will not be approved where wilful neglect or damage can be established.

## 4. GENERAL REQUIREMENTS FOR ALTERATIONS & ADDITIONS

The objective of the following guidelines is to ensure that new development involving heritage items and buildings in a Conservation Area will respect and enhance the heritage character of the building and their surrounding area. The following requirements will generally apply to all development covered by this Plan.

### 4.1 Sympathetic Design

- a) *Aims:*
  - To ensure that new alterations and additions
  - respect the architectural character and style of the building and area concerned.



- To maintain and enhance the existing character of the street and the surrounding locality.
- To enhance the public appreciation of the area.



*Alterations to this Victorian cottage returned the verandah to its original hipped form. A fence in keeping with the age of the building was also constructed*

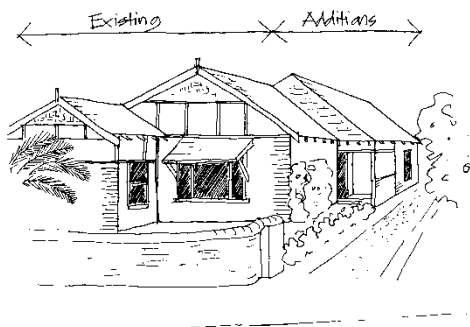
b) *Requirements:*

- An alteration or addition must consider the characteristics of the existing building, and buildings in the surrounding area, and sit comfortably in this context.
- New work should generally not precisely mimic the design and materials of the building, but be recognisable as new work on close inspection.
- Mock historical details should not be applied as they will not be of any heritage value themselves, and can confuse our understanding between the 'new' and the 'old'.
- Alterations and additions should blend and harmonise with the existing building in terms of scale, proportion and materials.
- Alterations and additions should not require the destruction of important elements such as chimneys, windows and gables.

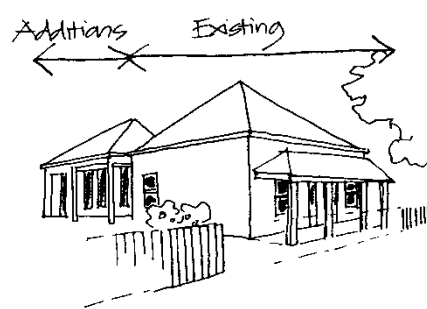
#### 4.2 Siting, Setback & Orientation

a) *Aims:*

- To maintain and enhance the existing character of the street and the surrounding area.
- To ensure that new alterations or additions respect established patterns of settlement (ie pattern of subdivision and allotment layout, landscaped settings, car parking and fencing.)
- To provide an appropriate visual setting for heritage items and heritage conservation areas.
- To ensure that the relationship between buildings and their sites which contribute to the character of the area are not disturbed or devalued.



*Rear extension which minimises impact on the original building. Side extension should not limit the ability for driveway access to the rear of the property.*



*Pavilion extension where addition is treated as a separate entity.*

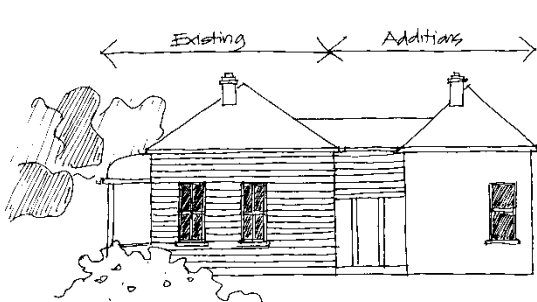
b) *Requirements:*

- Generally alterations or additions should occur at the rear of the existing building to minimise visual impact on the street frontage of the building, particularly where the additions and alterations involve a listed heritage item a building which contributes to the heritage character of the Conservation Area.
- Side additions should not compromise the ability for driveway access to the rear of the block.
- No new structures should be built forward of an established building line.
- An adequate area around the building including landscaping, fencing, and any significant trees should be retained.
- Larger additions can be successful when treated as a separate entity to retain the character of the original building in its own right.
- Front and side setbacks should be typical of the spacing between buildings located in the vicinity of the new development.
- The orientation pattern of buildings existing in the area should be maintained.
- Rear additions are generally best stepped back from side building lines.
- Where the wall of an existing residential building in a Conservation Area is located less than 900mm from a side boundary, additions

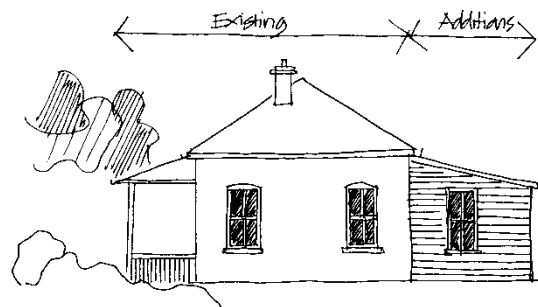


may be permitted to be constructed at the same setback as the principal building only where:

- they are small in scale and no greater than 20% of the existing building floor area;
  - there is no overhang of any part of the addition over the adjoining property;
  - there are no significant impacts on solar access to the adjoining property;
  - access for maintenance of the side wall of the addition can be provided wholly within the property boundaries.
- An addition must be constructed in accordance with the Building Code of Australia including requirements relating to fire safety, structural stability and termite resistance;
  - Any addition greater than 20% of the existing building floor area must be not less than 900mm from the side boundary and comply with the above.
  - Extensions to the side elevation will not be appropriate if they alter established patterns of building and garden.
  - Additions to the side of a building should not remove or sever car access to the rear, where it is not sympathetically provided elsewhere.
  - Archaeological evidence should not be disturbed without Council approval.
  - Where there has been known building sections which have been removed, and the building fabric has been substantially altered such that only its position on the site maintains its original context, further alterations which remove footprint evidence may not be appropriate.



*Pavilion extension where the front building form is repeated at the rear. A glazed connection can help separate the old from the new.*



*Skillion or lean to addition suitable for smaller extensions.*

### 4.3 Size & Scale

a) *Aim:*

To ensure that new alterations and additions respect the character of the building and surrounding area.

b) *Requirements:*

- An alteration or addition should not be of a size or scale which overwhelms or dominates the existing building, substantially changes or destroys its identity or changes its contribution and importance in its surrounds.
- New uses should be chosen which suit the size of the building, not requiring overwhelming changes.
- Unless it can be demonstrated that greater scale would be appropriate in the individual circumstances, additions should be of the same scale as surrounding development.



*The second storey addition to this building overwhelms the original structure and destroys its identity*

### 4.4 Roof Form & Shapes

a) *Aim:*

To retain characteristic scale and massing of roof forms within Conservation Areas and on heritage items when designing alterations and additions.

b) *Requirements:*

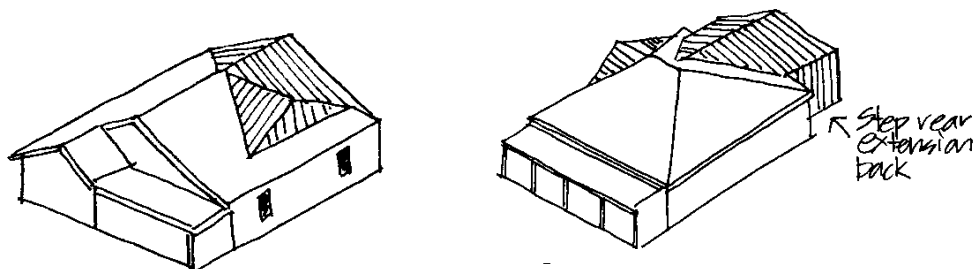
- Roofs of extensions should be carefully designed so that they relate to the existing roof in pitch, eaves and ridge height.



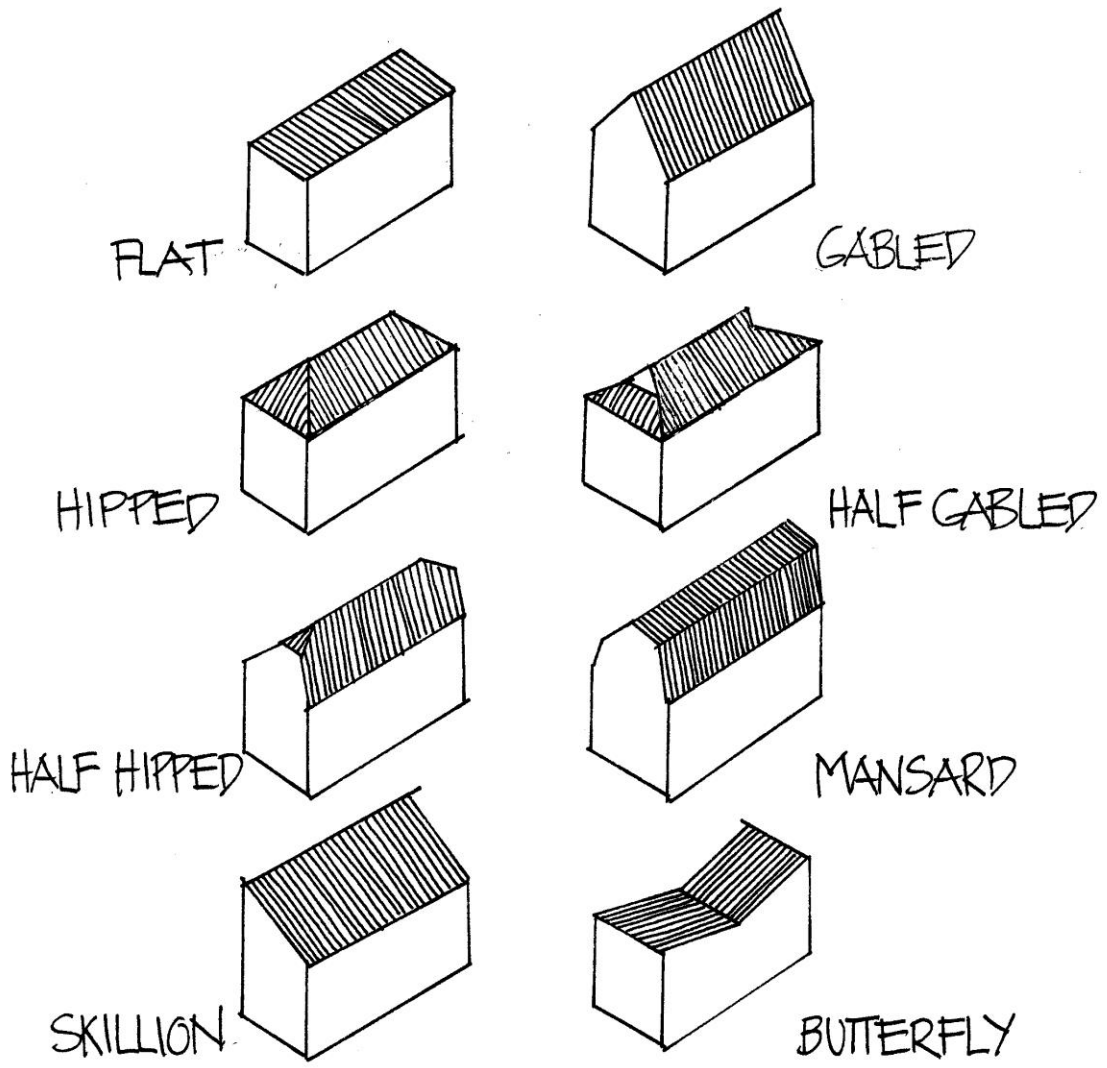
- Additional rooms can be added to heritage buildings appropriately where roof forms have been carefully integrated into the existing.
- If it is important that the roof form remains unaltered, additional rooms can be added in a detached pavilion form placed at the rear or possibly the side. Roof pitch, ridge height, height of parapet and eaves on additions should relate to those of the original building.
- Providing the roof space is large enough, attic rooms should be contained in roof forms for non-habitable uses such as a study or a library. The volume required for habitable uses such as bedrooms may mean unacceptable alteration to roof form.
- New roof elements such as dormer windows and skylights should not be located where they are visually prominent.
- Chimneys should be retained.
- Service utilities such as water heaters, air conditioning units, antennae, satellite dishes must not be located on the principle elevations of buildings.
- Use of roof materials should be the same as materials on the existing heritage building and those typically used in the Conservation Area.



*The addition of this dormer window (top left) does not detract from the main elevation*



*Contain attic rooms in existing roof lines by extending roof lines and continuing in the same scale and arrangement of parts*



*Different Roof Forms*



## 4.5 Shopfronts

The quality and style of shopfronts is of great importance as they reflect the quality and style of significant architectural buildings, and enhance the character and interest of footways for pedestrians.

Early shopfronts not only provide a great sense of quality to the shop through their distinctiveness, they also enhance display areas for merchandise.

Retaining original shopfronts is particularly important as they are usually complimentary to the other architectural features of the building where ones appreciation of the street is primarily at eye level.

The reinstatement of shopfronts in keeping with original building design is encouraged.

Modern shopfronts of large glazing set in an aluminium frame are considered to contribute little to the architectural character of the street front.

The modern tendency to build along the front wall finish without recessed entries also produces a uniform and uninteresting footpath space and does not highlight the entrance to the shop.



***New shopfronts in the historic High Street Glebe Trustees buildings were reinstated based on historical photographs.***



***Deep timber mouldings characterise early shopfronts and are encouraged for new shopfronts where the original has been removed.***

a) *Aims:*

- To retain shopfronts which contribute to the heritage significance of the building and surrounding area.
- To ensure that new shopfronts complement the significance and character of the existing building and surrounding area.

b) *Requirements:*

- Original shopfronts should be retained.
- Where the original shopfront has been removed and replaced by an unsympathetic alteration, the reinstatement of earlier styles of shopfront in harmony with the overall building character is desirable.



*The restored shopfront to this shop in High Street attracts public attention and gives a feeling of quality to the shop*

#### 4.6 Accessibility

Providing access to building for people with disabilities is required under the Disability Discrimination Act. Heritage places are no exception, however there is also a need to conserve these places and not alter them in a way which will impact on their heritage significance.

Historic buildings will generally require solutions specific to that site, however there are a number of principles which, if applied can assist in developing effective solutions.



*“Improving Access to Heritage Buildings, A Practical Guide to Meeting the Needs of People with Disabilities”* is a useful and practical booklet, regarding accessibility issues, published by the Australian Heritage Commission and the NSW National Trust.

Some suggested access principles and solutions for effective accessibility follow.

A thorough approach to improving access to heritage buildings includes the following steps:

1. Identify the heritage value or significance of the place, specifically those parts which have the greatest significance. This can be determined through developing a Conservation Plan, obtaining details on the property from local council, the State Heritage Office or National Trust of NSW, or seeking advice from a conservation professional.
2. Undertake an access audit to determine existing and required levels of accessibility.

Modifications should generally incorporate the following:

- Making the main or principal public entrance and public spaces accessible including a path to the entrance.
- Providing accessible toilets.
- Providing access to goods, services and programs.
- Creating access to other amenities and secondary spaces.

Solutions should:

- Be sympathetic and, where possible, reversible.
- New work should be evident on close inspection.
- In considering what is sympathetic, matters such as general form, materials, finish, compatibility with architectural details of the original design are guiding principles.
- Comply with Australian Standards – particularly AS 1428.1.

Some suggested approaches to accessibility/heritage issues are outlined below.

*Access to the Principal Entry:*

- The principal entry needs to be defined; it may not always be the ‘front door’, but the entry which most people will use.
- It can be acceptable to develop a second entry which may be more convenient for some people while maintaining the building’s significance.
- Entries should be located to minimise loss of original elements such as railing, steps and windows.

- The parking area or public drop off point should be conveniently located to the principal entry.
- Access paths should have a firm surface. Concrete is best, but well compacted gravel, cement stabilized or consolidated gravel or dirt are also suitable.

### *Ramps*

There is often a level difference between the path and the main floor level. The solutions to these differences are many and might include:

- Temporary or permanent ramps.
- Levels of footpath can be raised in some circumstances (requiring council approval).
- Shifting steps out from the face of the building and incorporating a ramp behind them.
- Locating a ramp in a location of low heritage significance.
- Lifting devices.

### *Doors*

- Entry doors should have handles at less than 1100mm.
- A clear width of at least 800mm is necessary. If doors are not wide enough, it might be possible to increase effective opening size by joining two leaves together or using offset hinges.

## 4.7 Materials & Colours

### a) *Aim:*

To ensure that materials and colours used in alterations and additions respect the significance and character of the existing building and surrounding area.

### b) *Requirements:*

#### General:

- Traditional combinations of materials used in heritage buildings should be considered when designing additions.
- It may not be appropriate or necessary to replicate the original combination of materials used in the original work. The use of a complementary material might make the increase in scale less noticeable and also enhance later understanding of the changes. For instance, timber weatherboard extensions to brick houses was a common practice which is still appropriate today, as was the use of



corrugated iron roofs at the rear of houses behind main roofs constructed with tile or slate.

- The use of highly reflective materials should be avoided.

#### Doors and Windows:

- Timber windows should be retained in existing buildings. New doors and windows should be of materials characteristic to the existing building, locality or an approved alternative.

#### Roofing:

- Original roof material should be matched in any addition in material and colour. If, however original roofing is expensive such as slate, corrugated iron is a suitable alternative to the rear.
- Traditional stepped flashings, roof vents, gutter moulds, and rainwater heads should be used.

#### Brickwork:

- New face brickwork should match the existing brick in colour and texture, and type of jointing and mortar colour.
- Existing face brick or stone on heritage items or heritage buildings in a Conservation Area should remain unpainted and unrendered.

#### Imitation Cladding:

- Timber board imitations are not acceptable for additions to heritage items or work visible from the street in Conservation Areas.

#### Colour Schemes

- Additions should employ colour schemes which do not detract from traditional colour schemes in the area. A number of good reference books on traditional colour schemes are available.
- Colour schemes suitable to the period of the building should be used.
- Unpainted brick or stone should remain unpainted.

#### Paving & Driveways:

- Preferred materials for driveways include wheel strips and gravel. Plain or stamped concrete should be avoided.

- Paired wheel strips over public footway areas are preferable to solid driveways.



*An example of paired driveway strips*



*Solid driveways over grass public footways detract from the character of a street's informal edges and the setting of houses*

#### 4.8 Design of New Detail and Opening

a) *Aim:*

To ensure that the character and pattern of new door and window openings in alterations or additions is compatible with the appearance of the original buildings and the area as a whole.

b) *Requirements:*

- Alterations should avoid arbitrary changes to openings or other features which do not fit in with the symmetry or character of the original design.
- If the street front of the original building is symmetrical, the addition should avoid simply extending the original design across the addition.
- New detail and openings should be simple in character using colour and materials which complements the original fabric.

#### 4.9 Evidence for Authentic Reconstruction

a) *Aim:*

To ensure that reconstruction reveals the known significance of the place (ie from physical and/or documentary evidence.)



The building itself may offer clues as to items previously removed such as evidence of handrails in posts, or marks in the footpath where verandah posts were removed.

As stated in the Burra Charter, 'Reconstruction is limited to the completion of a depleted entity and should not constitute the majority of the fabric of the place'.

b) *Requirements:*

- The reinstatement of a lost feature should faithfully replicate or copy the original in design, materials, arrangement and position.
- Reconstruction should be identifiable as new work without at the same time making it intrusive.



*The original verandah balustrade and frieze of this building (left) had been removed, however, the owners are now carefully reinstating these features based on the original design*

#### 4.10 Removal of Unsympathetic alterations and Additions

a) *Aim:*

- To ensure that contributions of all periods to a place are respected.
- To ensure that removal of any fabric only occurs when it is of slight significance, and the fabric which is to be revealed is of much greater significance.

b) *Requirements:*

Additions which are obviously out of character with the original design may be removed, whereas it may be preferable to retain well integrated additions or substantial alterations to the existing building.



*This verandah brick wall could be removed and timber posts reinstated to return the cottage to its original design and improve its appearance*

#### 4.11 Services & New Technologies

a) *Aim:*

To minimise any obtrusive effect of new building services and technical equipment in Conservation Areas and on heritage items.

b) *Requirements:*

- Exhaust vents, skylights, air conditioning ducts and units, solar panels, TV antennae and satellite dishes should not be visible on the main elevation of the building or attached to chimneys where they will be obvious.
- In heritage areas they should be hidden from view as much as possible.
- Essential changes to cater for electrical wiring, plumbing or other services should be limited to what is essential to permit the new use to proceed.

#### 4.12 Landscaping

a) *Aims:*



- To maintain the rhythm of gardens, open spaces and tree planting in a heritage streetscape;
- To ensure that planting does not compromise important views into or out of conservation areas;
- To maintain the landscape character of the locality in any new development;

*b) Requirements:*

- When designing new gardens, reference should be made to surviving plants which indicate the basic garden structure, and can be worked into new designs.
- When selecting suitable trees, the following should be considered: the varieties that already exist in the area; the size of the tree when mature; the potential of the chosen species to interfere with services, retaining walls and other structures.
- Many heritage garden reference books are available to explain typical settings for houses of different styles and periods (See Bibliography).
- Hard surfaces should be kept to a minimum.
- Screening of hard surfaced areas is encouraged.
- Garden structures should be appropriate to main buildings in terms of scale, style and materials.
- Original surfaces such as close jointed brick paving or stone flagging common to Victorian and Federation sites, and pebble aggregate, quarry tile or mosaic tile aprons common to later Californian Bungalow styles should be retained.



*Many beautiful mature trees in Maitland are historically important landmarks and add much to the character of the area.*



*The hedge in front of this Victorian cottage complements its period style.*

#### 4.13 Fences

Fences form an integral, yet fragile part of heritage areas. The majority of historic fences have disappeared, so it is very important that those authentic fences which remain are preserved.

When repairing an original fence, determine:

- what is significant about the fence;
- is it unusual or typical of its time;
- its style;
- its physical condition.

It is important to retain as much of the old material as possible.

When constructing a new fence and there is insufficient evidence to reproduce the original, it is important to build the fence so that it is in harmony with the existing fences and houses of the street. Ensure that the height matches that of (sympathetic) neighbouring fences, and that the colour scheme is compatible with the house.



*Original fences such as the one of this Victorian Cottage are rare and should be retained*



*Solid high front fences detract from the value and streetscape character*

a) *Aim:*

To retain original existing fencing and provide for new fencing that is consistent with established patterns.

b) *Requirements:*

- Original fences should be retained.
- Fences should be located on building line.
- Fences should be simple with a level of detail comparable with the house.



- Fencing should generally be open or transparent, or backed with a hedge, not solid.
- Fences should be of a scale comparable with the street.
- Front fences should be of materials characteristic to the surrounding area, particular to the street and suitable to the era of the house. Examples include timber picket, low masonry and hedges.
- Plain or colour treated metal fences are not considered to be appropriate for Conservation Areas or Heritage Items on any street frontage or side boundary.



*The colourbond fence used along the side boundary of this house detracts from the character of the building and street*

#### 4.14 Garages, Carports & Sheds

a) *Aim:*

To ensure that garages, carports and sheds do not detract from the character of the area and/or heritage item due to inappropriate location, design and materials.

b) *Requirements:*

- Garages and carports should preferably be detached and located at the rear or set well back at the side of a building behind the rear building line.
- Garages should be set back a minimum of 500mm from the side and the rear boundary.
- Garages and carports should make reference to any established historic patterns in the street.

- The use of landscaping such as screening or planting and front fences may be useful tools in integrating the structure with its site.
- If connected to the main dwelling, garages should be positioned well behind the principle building line (ie 5m) or be positioned behind the dwelling.
- Colours and materials should blend into the surrounding landscape. Custom orb iron roof profile and timber board profile cladding wall are common materials used.
- Garages should have simple hipped, gable or skillion roofs depending on the design of the existing main building.
- Gable or hipped roof with skillion roofed attachment is the most appropriate double garage roof form.
- Existing outbuildings should be maintained and reused wherever possible.
- Simple open light construction carports are preferable to solid heavily detailed buildings.
- Tennis courts should not be sited so as to intrude on the setting of the main building. They will almost always be best located to the rear of the main building.
- The pitch of a garage or carport roof should, in most cases, be comparable or slightly lower than that of the main building – generally 25° – 30°.

## 5. GENERAL REQUIREMENTS FOR NEW BUILDINGS IN HISTORIC AREAS

This section suggests ways in which new buildings can be designed and located in harmony with existing development in historic areas. It aims to encourage an appreciation of the special character, features and setting of an area, then to reflect this understanding in the design of the new building.

This section relates to wholly new development on the site of a heritage item, on vacant land in a Conservation Area, or land which is in the vicinity of heritage items or Conservation Areas.

### 5.1 Introduction

It is essential that the scale and siting of new development does not detract from the scale, form, unity, and character of the surrounding area.

New development should therefore respect the character of its surrounds. However, respect does not mean copying. While architectural replicas may appear visually compatible with their surroundings, they can confuse the original buildings in the area and give a false impression of historical development.

New development can be contemporary in design when it is well integrated with and related harmoniously to its older neighbours.



### *Character of an Area:*

It is important to understand the characteristics and features of an area before deciding on the form and style of a new building.

### *Conservation Areas:*

Part E of this DCP, provides an introduction to what are considered to be important characteristics of specific conservation areas.



*This new building is contemporary (centre of photograph) in design, but relates to its neighbours, roofline and proportions.*



*Architectural replicas or mock reproductions can confuse the old with the new, detracting from original buildings in a Conservation Area.*

## 5.2 Siting a New Building

### a) *Aim:*

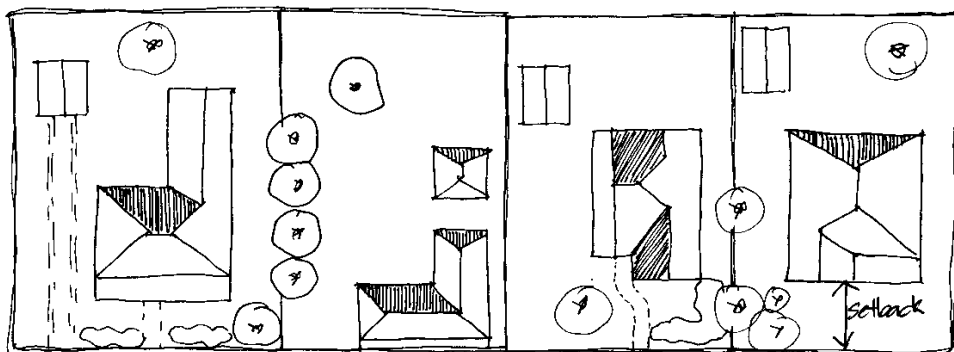
To ensure that siting of new buildings respect the significance and character of the surrounding area.

b) *Requirements:*

- New development should have regard to the established patterns of the locality with regard to the typical location and orientation of buildings on an allotment.
- The siting of a new residential building allowing for a generously sized front garden will usually assist in its successful integration.
- New development should be sited behind the building line of any adjoining heritage item.



*This new building was set back from adjoining historic buildings to reduce its visual impact on the street*



*Garages should be sited to the rear of the lot*

*Early buildings often were sited close to the front boundary and should remain prominent on the street.*

*New development should be setback from historic buildings, in line with other typical buildings*



### 5.3 Scale

a) *Aim:*

To ensure that the scale of the new building respects the significance and character of the surrounding area nor detrimentally impacts upon an established pattern of development in the vicinity.

The majority of the Maitland Region is flat.

This means that particular attention should be given to approach views and internal views of existing landmarks which should not be jeopardized.

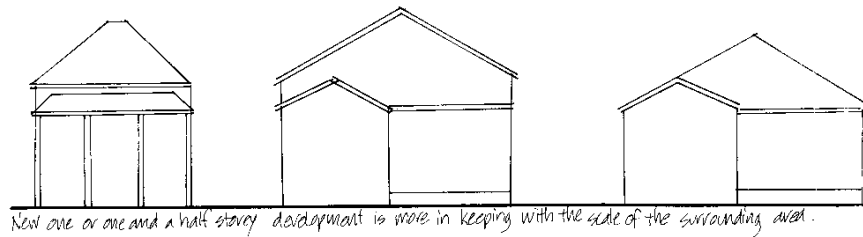
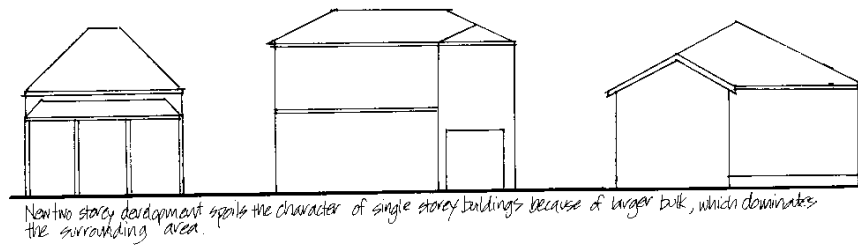
Large unbroken roof spans may be obtrusive in flat areas of low scale buildings. Articulation of the floor plan can be a useful way to break up large spans.

To ascertain the appropriate scale of new buildings, the following design aspects are of particular importance;

- Reference to the main ridge line heights of original surrounding buildings;
- Natural ground or street levels;
- Ensuring different parts of the building are in scale with the whole;
- Ensuring the scale of verandahs relate to the scale of those in adjacent buildings.

b) *Requirements:*

- The scale of a new house should be related to the size of the allotments laid out in the historical subdivision pattern of the area. This does not apply to consolidated lots. New buildings should be in scale of surrounding dwellings. Large houses on small allotments will tend to look awkward and dominate the surrounding area.
- Large houses may be better located on large allotments in less sensitive areas.
- New houses should generally remain at single storey in areas where the majority of buildings are single storey.
- Landmark buildings in Conservation Areas which may be heritage items, mansions or public buildings will generally be surrounded by single story buildings, or those of a lesser scale. These landmark buildings should not be used as a precedent for increasing the scale of new buildings. New buildings should rather relate to the scale of existing development around the landmark and respect its prominence.



## 5.4 Proportions

The composition and proportion of building facades often form a pattern or rhythm which gives the streetscape its distinctive character.

Traditionally, older buildings up to the 1930's used vertical proportions, reflecting the construction technology of the day. Modern technology allows for much greater spans and often leads to a horizontal emphasis.

The shape, proportion and placement of openings in walls are important elements in the appearance of a building.

### a) *Aim:*

To ensure that the proportions of the new building respect the significance and character of the surrounding area.

### b) *Requirements:*

- Openings in visible frontages should retain a similar ratio of solid to void as to that established by the original older buildings.
- New buildings should incorporate the typical proportions of surrounding development, even when using modern materials.
- New buildings should establish a neighbourly connection with nearby buildings by way of reference to important design elements such as verandahs, chimneys or patterns of openings.

## 5.5 Setbacks



a) *Aim:*

To ensure that the setback of the new building respects the significance and character of the surrounding area.

b) *Requirements:*

- Where there is a uniform historically based setback, it is generally advisable to maintain this setback in a new building. Where the new building will be obtrusive it should be set well back and heavily screened.
- If the setback varies, the new building should not be set closer to the street than an adjoining historic building (even if it is not an identified heritage item).
- Setback from side boundaries should be consistent with typical buildings in the immediate vicinity.

## 5.6 Form & Massing

The form and massing of a building is its overall shape and the arrangement of its parts. Important elements of mass in buildings include roofs, facades and verandahs.

Residential plan and roof forms differ greatly depending on the era of the building.

Plan forms characteristic of typical 1800's houses were simple often with a straight frontage, or where there walls at different lines, a verandah was placed to produce a plan form of a basic square or rectangular shape.

Most buildings constructed up to the 1900's were characterised by small roof forms with a roof.

Hips and gables generally did not span greater than 6.5 metres. If a house was to be wider or longer, another hip or gable or skillion were added.

The basic plan and roof form were often extended at the rear or sides by a skillion roof with a typical 25-degree pitch.

The roof is usually the most influential aspect of the design of new building in a Conservation Area. The shape of a roof and pattern it makes against the sky is generally distinctive in a Conservation Area and should be a primary consideration in the design of new development.

a) *Aim:*

To ensure that the form and massing of new buildings respect the significance and character of the surrounding area.

b) *Requirements:*

- New buildings should be designed in sympathy with the predominant form and massing characteristics of the area.
- Houses generally had ridges of the same height. It is therefore important in new buildings to ensure that the width of wings can maintain a consistent ridge and roof height.

## 5.7 Landscaping

a) *Aim:*

To ensure that new landscaping respects the significant characteristics and elements of the surrounding area.

b) *Requirements:*

- Generous green landscaped areas should be provided in the front of new residential buildings where ever possible. This will almost always assist in maintaining the character of the streets and Conservation Areas.
- New landscaping should not interfere with the appreciation of significant building aspects such as shopfronts or contributory building facades.
- Important contributory landscape characteristics such as canopy cover or boundary plantings should be retained in new development.

## 5.8 Detailing

a) *Aim:*

To ensure that detailing on new buildings respects but does not imitate original detailing on older surrounding buildings.

b) *Requirements:*

- Avoid fake or synthetic materials and detailing. These tend to give an impression of superficial historic detail.
- Avoid slavishly following past styles in new development. Simple, sympathetic but contemporary detailing is more appropriate. Original materials and details on older buildings need not be copied, but can be used as a reference point.

## 5.9 Building Elements & Materials



Materials and their colours will influence how a new building will blend or intrude with the character of its surrounds.

a) Aim:

To ensure that the use of materials and colours of the new building respect the significance and character of the surrounding area.

b) Requirements:

### **Doors and windows**

- New doors and windows should proportionally relate to typical openings in the locality.
- Simply detailed four panel doors or those with recessed panels are generally appropriate.
- Mock panelling, applied mouldings and bright varnished finishes should be avoided.
- Older houses have windows which are of vertical orientation and this approach should be used in new buildings.
- Standard windows often come in modules of 900mm wide. Their use should be limited to single or double format only. The most suitable windows are generally double hung, casement, awning or fixed type.
- If a large area of glass is required, vertical mullions should be used to suggest vertical orientation. A large window could also be set out from the wall to form a simple square bay window making it a contributory design element rather than a void.
- Coloured glazing, imitation glazing bars and arched tops are not encouraged.

### **Roofs**

- Corrugated galvanized iron (or zincalume finish) is a most appropriate roofing material for new buildings in historic areas. It is also economical and durable. Pre finished iron in grey or other shades in some circumstances may also be suitable.
- Tiles may be appropriate in areas with buildings dating to the 1900's – 1930's. Unglazed terracotta tiles are the most appropriate. The colour and glazing of many terra cotta tiles make them inappropriate.
- Other materials to avoid include modern profile steel deck.
- Ogee profile guttering is preferable to modern quad profile. Plastic downpipes should be avoided in prominent positions.

## Paving

- Preferred materials for driveways include wheel strips and gravel.
- It is important that the amount of hard driveway material does not dominate the front garden area.

## Walls

### Imitation Cladding

- Cladding materials which set out to imitate materials such as brick, stone, and weatherboard should be avoided as they tend to detract from the authentic character of the surrounding original buildings.

### Weatherboard

- 150mm weatherboards are generally appropriate for historic areas. They should be square edged profile unless the surrounding buildings are post 1920's.

### Brick

- Plain, non-mottled bricks are preferable with naturally coloured mortar struck flush with the brickwork, not deeply raked.
  - Bricks of mixed colours (mottled) should be avoided, as should textured 'sandstock' bricks.



*Cladding materials which set out to imitate cladding such as brick stone and weatherboard should be avoided in Conservation Areas*



## 5.10 New Commercial Buildings in Historic Areas

In addition to the above, new development in commercial precincts within Conservation Areas, or that adjacent to a Heritage Item should take into account the following issues.

*Requirements:*

### **Building Heights and Setbacks**

- The height of buildings should reinforce the desired scale and character of the area. Maximum building heights have been set out in Part Two, 'Conservation Areas'.

### **Services**

- Service structures, and plant and equipment within a site should be an integral part of the development and should be suitably screened buildings and should not be built out.

### **On – Site Loading and Unloading**

- Facilities for the loading and unloading of service vehicles should be suitably screened from public view.

### **Design of Car Parking areas**

Car parking areas should be located and designed to:

- provide landscaping where practicable to shade parked vehicles and screen them from public view.
- provide for access off minor streets, and for the screening from public view of such car parking areas from surrounding public spaces and areas.

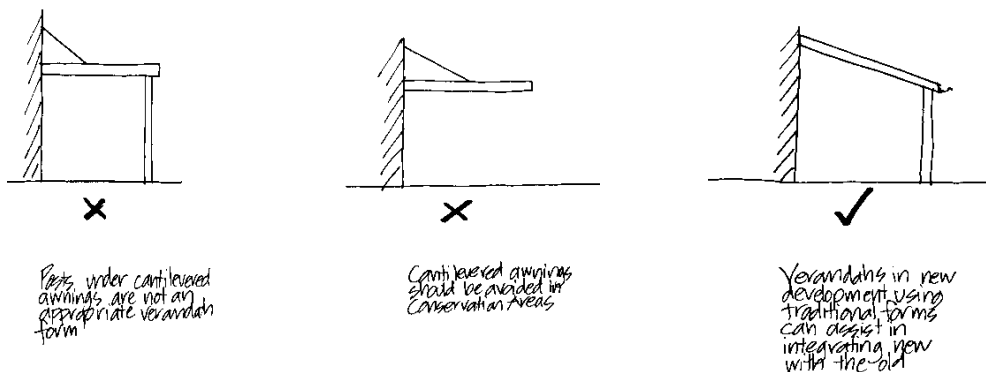
### **Car Park Structures Should:**

- incorporate a façade designed to complement adjoining buildings in an urban context.
- be setback from the street frontage and out of view if possible.

### **Roof Form, Parapet and Silhouettes**

In Commercial areas, it is the consistency of parapets which make a significant contribution to the architectural character of an area.

- Where the prevailing pattern of roof forms assists in establishing the character of a townscape, new roof forms should seek to be compatible with the shape, pitch, and materials of adjacent buildings.
- Parapet heights and articulation should be compatible with earlier surrounding buildings.
- Lightweight materials such as ribbed coloured metals should not be used on vertical wall or parapet surfaces.
- New verandahs should be based on design principles of traditional verandahs with sloping roofs galvanised iron and regularly spaced columns.



### 5.11 New Development in the Vicinity of Heritage Items

In addition to the matters raised previously, the following principles should be given particular attention when considering new development in the vicinity of heritage items.

a) *Aim:*

To ensure that new buildings provide a setting for the adjoining heritage item so that its historical context and heritage significance are maintained.

b) *Requirements:*

- Development in the vicinity of listed heritage items should respect and complement the built form character of those items in terms of scale, setback, siting, external materials, finishes and colour.
- New development should have regard to the established siting patterns of the locality.
- New development should generally be set back from the building line of the adjoining or adjacent heritage item.
- The sensitive selection of materials, colours and finishes is important in terms of achieving compatibility with the heritage items.



- Height and scale of new buildings should not obscure or dominate an adjoining or adjacent heritage item.
- Development in the vicinity of a heritage item may be contemporary in design.

## 6. SIGNAGE

### 6.1 Signage on Commercial Buildings

#### a) *Aim:*

To ensure that signage respects and enhances the amenity of the area.

Architectural research can reveal old and original signage through historic photo collections and referring to the High Street Study available at Council and Maitland Library.

The Maitland High Street Study provides many early photographs of which can be used as a reference to identify suitable locations for new signs.

#### b) *Requirements:*

##### **New Signage**

- The scale, type, design, location, materials, colour, style and illumination of any sign should be compatible with the design and character of the buildings and should not intrude on the visual qualities of the townscape.
- The architectural characteristics of the building should always dominate.

##### **Above Awning Signs should:**

- Be simple in design and avoid a proliferation of advertising which can be confusing and detract from the building and conservation area.
- Be located flush with the wall surface.
- Not be fluorescent or internally illuminated.
- Signs adjacent to heritage items or older buildings in Conservation Areas should be designed and located sympathetically.



*Signage should be located within architectural elements of the building using appropriate lettering style, size and colouring.*



*Original signage has important cultural value and should be retained.*

**Original Signs**

- Early signage has cultural value and should be retained.

**Colour**

- Colours should be sympathetic to the surrounding area and be related to the colours of the building.
- The use of entire glazed shopfronts for temporary notices is not considered appropriate, nor is the use of temporary fluorescent signwriting.
- The use of bright corporate colours and sign designs which are not related to the architecture or character of the area and building are not considered appropriate.

**Lettering Styles**

- Traditional styles of lettering can be interpreted for modern buildings such as the use of raised lettering or traditional styles such as Clarendon, Ionic, Tuscan, Modern and Fat.



*Traditional styles of lettering can be used effectively*



## 7. SUBDIVISION OF LAND

- 7.1 The appearance of a locality, and the nature of development that has traditionally occurred in it, is often linked to the subdivision pattern – to the size and shape of the lots, the width of streets and footpaths, and the building and landscaping opportunities that these patterns have allowed or encouraged.

The subdivision pattern itself can be a reflection of the history of the area – of what sort of people lived there, what kind of community it was, whether it was poor or affluent, rural or urban.

To retain these physical indicators of the history of a locality, therefore, subdivision proposals in Conservation Areas, or on land in the vicinity of, or on which a heritage item is situated, require careful consideration.

a) *Aim:*

- To ensure that the subdivision of land respects the heritage significance of the item or the conservation area.
- To ensure that the subdivision layout has regard to the heritage significance of the item or the conservation area in relation to the siting and design of the proposed built forms.

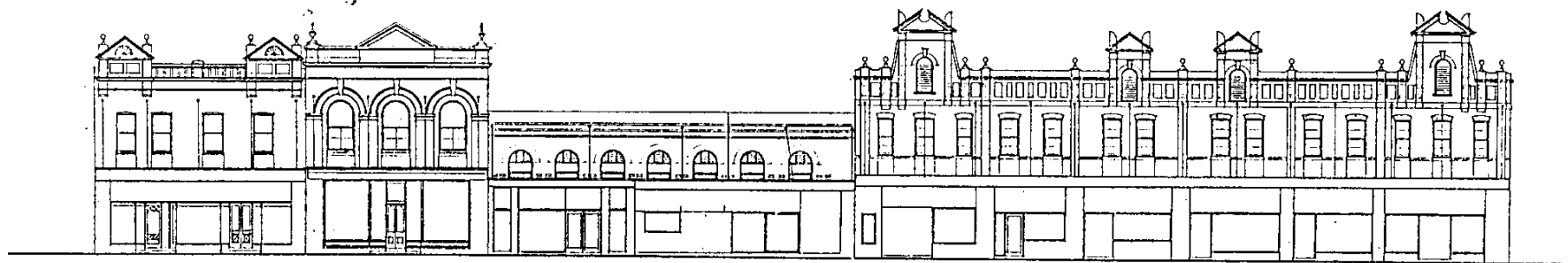
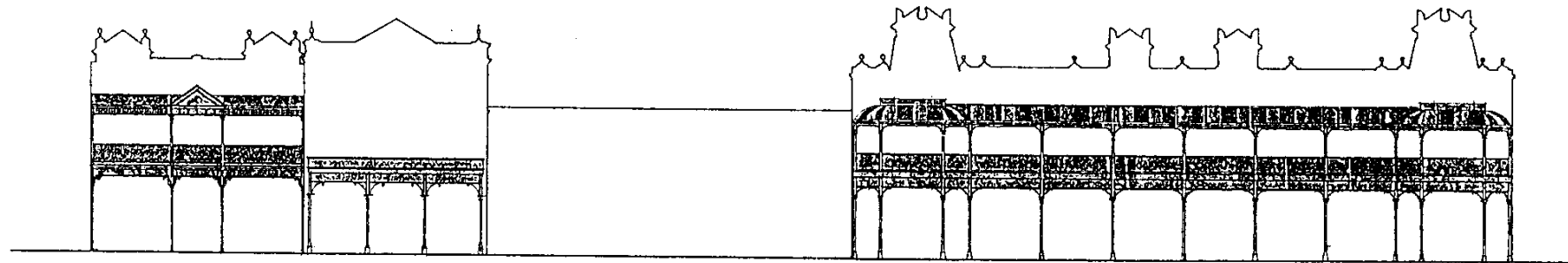
b) *Requirements:*

- The proposal should not substantially alter the density of development such that the character and heritage significance of the heritage item or Conservation Area is adversely affected.
- The allotment and building spacing, i.e. frontage widths, side and front boundary setbacks, should be typical of surrounding development such that:
  - the rhythm of buildings in the Conservation Area is maintained;
  - so that vistas and views to and of any heritage items in the vicinity, especially the principal elevations of buildings, are not interrupted or obscured;
  - so that the landscape quality of the Conservation Area streetscape is retained;
  - so that the setting of the heritage item and a satisfactory curtilage, including important garden and landscape elements, is retained.
- The scale and form of proposed new development should not detract from the significant and dominant heritage elements of the item or the Conservation Area's streetscape.
- The details of required works and services, such as design and materials for kerbing and guttering, access crossings and the like

should be consistent with original elements of the item or Conservation Area.

- The subdivision should not require demolition of existing building stock or re-arranged vehicular access or car parking (on or off the site of the proposal) that would adversely affect the streetscape of the Conservation Area.





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 P 158                    P 138                    P 277                    P 142

*The Maitland High Street Study is a very useful reference book and provides diagrams of lost features on most buildings in High Street*

# Appendix

## Maitland's Historic Environment

Maitland's environment has value to us all as links to the past. Heritage items, Conservation Areas, archaeological sites and historic artefacts individually and collectively have profound importance. They provide a source of community identity, evidence of the evolution of society's values, the impetus and inspiration for new ideas or the revival of the old. They also provide a wonderful source of aesthetic satisfaction and are an increasingly important economic resource.

Part One of these guidelines should assist in understanding the built environment of Maitland, and provide advice on how to manage and care for heritage buildings.

### 1. INTRODUCTION

#### 1.1 European Settlement in Maitland

The built environment of Maitland, renowned for its historical character and value, began to grow in the early 1800's on the site of West Maitland where freehold land had been granted to ex-convict farmers. The river was formerly navigable to this point, and the road from Newcastle to the Upper Hunter provided the main street.

By the mid 1820's West Maitland had fifty houses, but its flood prone location led to some residents to petition for an alternative site.

Consequently, in 1829 Sir Thomas Mitchell laid out a plan for East Maitland on a ridge near West Maitland. To encourage its growth, government services such as the Courthouse, Post office and Gaol were located there.

East Maitland, however, failed to attract townspeople, largely because of high land prices and lack of water.

Meanwhile, a northern local site was developing. By 1829 the store ship St Michael was moored at the site of Morpeth where deep water provided anchorage above flood free ground. This was the estate of EC Close which he laid out as a town in 1832. Shipping goods to Morpeth meant that the tortuous meanders which took the river up to West Maitland could be avoided.



*Early view of East Maitland down William Street towards Maitland Courthouse and Maitland Gaol  
Source: NSW Department of Public Works and Services*

As the agricultural prosperity of the district grew, several smaller outlying towns came into being which became picturesque and profitable settlements. Largs and Hinton in particular fell into this group.

So, by the later years of the nineteenth century, the region of Maitland was viewed as a patchwork:

‘West Maitland, in one direction, East Maitland in another, Morpeth in a third, Hinton in a fourth and Largs in a fifth, and in between them farms and grazing paddocks’.

Maitland Mercury 21 February, 1894

The most impetus for development of West Maitland came during the later years of the nineteenth century and the early twentieth century. Subdivision of large estates permitted the development of what might be called dormitory suburbs such as Lorn, Bolwarra and Telarah. Lorn is the best example in the Hunter of the garden suburb movement of this time.

The prosperity associated with this expansion of the towns’ boundaries is reflected in the many fine buildings, streets and areas which still remain today. Maitland is particularly rich in the work of the most eminent nineteenth century architects including Edmund Blacket, Mortimor Lewis, Joseph Reed, James Barnet, Walter Vernon, JW and WH Pender, James Scobie and George and Ralph Mansfield.



*View of High Street, Maitland in the early 1900's.*

The onset of the railway through to the deep-water port of Newcastle saw Maitland replaced as the urban centre of the Hunter in the twentieth century.



## 1.2 Historic Buildings and Places

Keeping heritage places enables the community to experience again and again the pleasures and interest they offer. Once lost, they are gone forever. No record or photograph can ever substitute for an actual place.

Before deciding how to care for a heritage building, group of buildings or area, it is important to understand what makes it special.

The conservation areas of Central Maitland (which includes Regent Street), East Maitland, Morpeth, Lorn and Bolwarra each have their own unique characteristics. The collective existence of buildings, individual heritage items, trees, open spaces, views and landmarks, and smaller details such as sandstone kerb and gutters all contribute to our appreciation of the area's historic value.

The loss or damage of any one attribute will erode the special character of the Conservation Area as a whole.

Ongoing care and maintenance of all elements in these conservation areas is considered to be an essential part of achieving their conservation.

The whole community has a role to play to ensure that individual buildings, gardens, and public areas are maintained, and not left to decay.

The large range of building types and styles spanning Maitland's history provide an excellent source of studying building techniques and history. of styles.

The following information describes some of the building types found throughout Maitland dating from the 1820's through to the twentieth century.

New buildings should not try to mimic or replicate these buildings styles as this can detract from the authentic value of original buildings which create the areas of interest we enjoy today, and tends to confuse the old with the new.



*View of Central Maitland from the Town Hall Clock tower*

### Slab Houses 1920's – 1850's

Slab houses are now very rare throughout NSW making those which remain in Maitland of great value and worthy of retention. Often, the slab buildings are only recognisable on careful inspection.

The typical slab house was constructed from vertical boards set in a base plate with rough hewn logs for rafters and roofed in shingles. These buildings ranged from two roomed cottages to larger dwellings of four rooms and buildings of two or three cottages joined together.

To weatherproof the building, narrow tin strips were placed over the joints and later horizontal weatherboards were added. On the inside, slabs were often lined with successive layers of calico, plaster and then wallpaper.

Some of the slab houses might have originally had simple shutters over window openings. Most houses would have originally had ledge and brace doors but these have mostly been replaced by four or six panelled doors.



*Slab Building in Central Maitland*

### Small Brick and Stucco or Timber Cottages 1830's-1850's

These cottages are recognisable by their low ceilings, simple fenestration and proximity to the street.

They are characterised by a hip or gable roof, central six panel door and twelve pane windows on either side of the doorway. Many of the cottages were built without verandahs, although many now have them.

Despite modernisation such as additions to incorporate kitchens and bathrooms within the house, many of these early cottages retain their shape and form. In many instances, the cottage had a second part similar in size and shape at the rear.

Originally some of the cottages would have been whitewashed or plain brick, but extra weatherproofing was added particularly due to flooding, so that most masonry cottages now have a cement render finish.



**E**  
**a**

*Early masonry cottage in Central Maitland*



### Early Georgian Two Storey buildings 1830's – 1850's

A number of substantial fine two storey buildings dating from this period can be found in Maitland.

They are characterised by a symmetrical elevation including a central door, and 12 pane windows either side and to the upper floor.

Where verandahs were used they were narrow cantilevered type to the upper floor, or narrow two storey type on simple turned timber columns.



*An early Georgian two storey building in East Maitland*

### Two Storey Brick Houses 1850's to 1860's

Two storey brick houses were usually built by local merchants and business people. They had hipped roofs with shingles, flat iron or occasionally slates, six panel doors, twelve pane windows and/or French doors.

A two storey verandah at the front of the house was generally supported by simple tapered timber columns, often with cast iron columns on the first floor verandah.

There was generally a servant's wing at the rear, separate kitchen and outbuildings including stables.

The houses were generally built on large allotments and set well back from the road. Some houses have been stuccoed, or painted at a later date. Most of the front facades have fine tuck pointed brickwork in Flemish bond.



*"Springfield" in St Andrews Street is a good example of large Victorian Filigree Style*

### Single Storey Brick Houses 1850's – 1860's

Single Storey brick houses from this time are characterised by brick and stucco construction with a gable roof, central doorway with windows on either side. They generally have a front verandah supported by wooden columns.



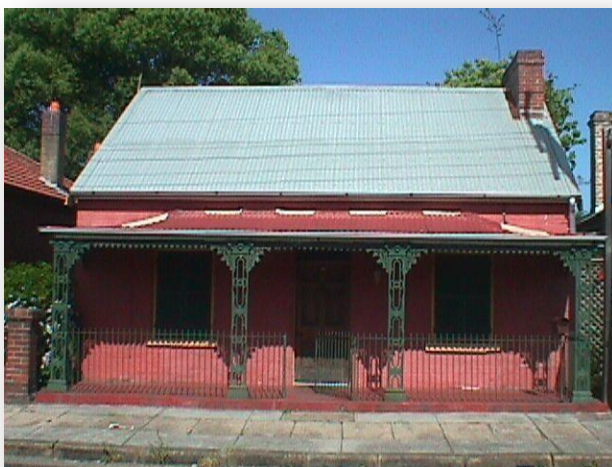
*Single storey brick house in Central Maitland*

### Small Cottages 1860's – 1870's

Characteristics of these brick or weatherboard cottages include shuttered sash or French windows on either side of a central doorway. They have a hipped corrugated roof with concave verandah usually sited close to the street alignment.

The verandah posts are plain chamfered columns or cast iron pilasters.

The most intact examples have 4 or 12 pane windows.



*Cottage in Central Maitland*

## Early to Mid-Victorian Non-residential Buildings to 1870

This was a period of solid growth producing substantial churches, banks and commercial buildings.

Restrained Georgian ideas of building prevailed with gothic themes used for religious and educational buildings, and classical themes for civic and commercial buildings. Most buildings were brick, with stucco and render becoming popular.

There was an increased use of two storey verandahs covering the footpath, with cast iron decoration for handrails and friezes. Low front parapets were simple in design with a pitched roof visible behind.

## Single Storey Victoria Houses Late 1870's – 1880's

This type of house is the most common surviving in Maitland. It is single storey with hipped roof, central four panel door with sidelights and one or two pane windows on either side which frequently had wooden shutters.

The front verandah is supported by cast iron columns with capitals, cast iron brackets and cast iron trim. The cast iron detail is the most notable characteristic of this building type, with three patterns predominating in Maitland, one of which was designed by local architect J.W. Pender.

These houses were built of either brick or timber and set on medium sized allotments. The brickwork was generally unpainted and unrendered, and sometimes had tuck-pointing.

Steps leading to the front door were rendered and moulded, most houses being elevated half a metre from the ground level.



*A single storey Victorian House in Central Maitland*



### **Two Storey Victorian Houses 1880's – 1905**

The details of two storey houses from this period were similar to those of the single storey, and were built in either brick or weatherboard.

The two storey house generally had a projecting bay at one side of the front. Later versions had a verandah continuing around the corner, and the projecting bay was balanced by a similar projecting bay around the side.



*A two storey Victorian House in Central Maitland*

### **High Victorian Non-Residential Buildings to the 1890's**

This period is principally marked by Victorian love of decoration and is best shown in the development of the parapet and the verandah.

The verandah over the footpath became universally adopted with shops on the ground floor and residences over. The parapet was the most important design element becoming a major streetscape feature.

### **Two Storey Single Fronted House 1880's – 1900's**

The two storey single fronted house with full height verandah/balcony built in brick or timber is a special feature of Maitland.

It is distinct from other areas in NSW in that it occurs in greater numbers and in groups. The popularity of this house type in the late nineteenth



*A group of single fronted houses in Anzac Street*

century was probably due to the occurrence of flooding and availability of timber.

It can be seen with a variety of different styles of detailing from the Victorian to Federation periods.

### **Federation Style House Late 1890's – 1900**

Federation style houses in the Maitland area, particularly Lorn are generally single storey bungalow forms.

They are characterised by an asymmetrical form with fairly complicated roofs including dormer and gable elements. Terracotta tiles or corrugated iron painted tile red was a common roof treatment. The use of red brown tuck pointed brick was common for external walls. Most houses had a verandah, often on two sides. Walls were rarely square with bay windows common, leadlight windows were also popular.

Timber detailing tended to replace the cast iron decoration of previous styles. Full length turned timber verandah posts with timber balustrades, brackets or valance were popular.

Common landscape features included timber picket fences, tiled or brick pathways and brick edged gardens.

### **Modern Brick Bungalow 1930's – 1940's**

Buildings of this period often replaced houses of an earlier date. They were usually triple fronted, with Marseille tiled roof. Gable ends were often a combination of timber shingles, white painted asbestos cement and wide timber battens.

Verandah columns often sat paired on squat masonry columns with brick balustrading and rendered capping and base moulding. Diamond patterned leadlights were sometimes used on front windows.

## 2. GENERAL CONSERVATION GUIDELINES

The following guidelines apply to projects which involve work to conserve an existing historic building or place. Historic places may range from listed heritage items to buildings in a Conservation Area.

### 2.1 Getting Started

#### **Research**

A key principle in heritage conservation is the need to understand the heritage importance or significance of a place before making decisions about how to manage it. A major part of understanding what makes a place special is to understand its history; why it was built, how it was used and how it has changed.

Documentary research can reveal useful information including old photographs and early records such as title deeds to indicate successive owners.

Other types of documentary research might involve searching collections of libraries, sourcing maps and plans, photographic and picture collections or books and articles.

This information can be found at the Lands Titles Office, libraries – including Maitland Library and the Mitchell Library in Sydney, Local Council records, local museums and possibly galleries. Former owners of the building may also be of assistance.

Establishing the construction date of early buildings is difficult, as there is often little documentary evidence. It is usually necessary, therefore, to rely on observation of the building style, and research of land titles in the Land Titles Office which provide a sequence of owner names and dealings.

#### **Getting to Know the Building**

A close examination of the *fabric* will usually be very important. The '*fabric*' of a building or place refers to the physical material of which it is comprised.

Careful inspection can reveal evidence of original detailing. Painting might reveal the shape of a former iron roof over a verandah, nail holes on verandah posts might show the former location of brackets.

Systematic inspection of the *fabric*, informed by a knowledge of the history of the place, will help to understand its significance. A conservation specialist may be required to evaluate whether the building is significant and to identify the most significant elements.



Looking at other similar buildings in the locality can also indicate how missing parts of a building may have appeared, or how things were done.

When you have determined what is significant about a place, this information should help to guide maintenance, repair and conservation work. Wherever possible, original features, materials and finishes should be retained.

### **Sound Advice**

It is advisable, and often necessary to obtain professional advice from experienced people such as heritage architects when working on a major project.

Where there is considerable expenditure involved, it is important not to rely on guesswork which may lead to problems later on.

The NSW Heritage Office maintains a list of Consultants who specialise in heritage work which can be obtained from Council.

Council also has a free Heritage Advisory service to assist you with preliminary advice on your project.

### **Keeping Records**

When working on conserving or altering a place, it is important to make careful records of the state of the place before it is changed.

This will provide an accurate reference to how the repaired or new material should be constructed and/or appear. It will also provide good reference material for people who will look after the place in the future.

## **2.2 Conservation Processes**

Work on an historic building or place can involve a variety of Conservation processes as defined by the Burra Charter.

The Burra Charter establishes the nationally accepted standard for the conservation of places of cultural significance. The Charter advocates a cautionary approach to changing a place, doing as much work as necessary to repair, secure and to make it function, but as little as possible – so the history of the place can continue to be recognised in its physical presence.

The following are Burra Charter definitions of common conservation processes:

**Restoration** - means returning the existing fabric of a place to a known earlier state by removing, adding on or re-assembling existing components without the introduction of new material.

**Reconstruction** - involves introducing material to replace missing elements returning a place as nearly as possible to a known earlier state. Complete rebuilding on the same or another site is unacceptable except as an absolute last resort.

**Adaptation** - means modifying a place to suit the existing use or proposed compatible uses. A compatible use means a use which involves no change to the culturally significant fabric, or changes which require minimal impact.

Adaptation is acceptable where the conservation of the place cannot otherwise be achieved, and where the adaptation does not substantially detract from its cultural significance.

**Preservation** - means maintaining the fabric of a place in its existing state and preventing deterioration.

**Maintenance** - means the continuous protective care of the fabric and the setting of a place, and is to be distinguished from repair. Repair involves restoration or reconstruction.

**Relocation** - a building or work should remain in its historical location. Moving a part or all of a building is unacceptable unless this is the sole means of ensuring its survival.

Changes which remove building fabric or introduce new fabric should as far as possible be reversible in order that the earlier appearance may be recovered at a later date.



*The verandahs on the Glebe Trust Building in High Street, Maitland were reconstructed using early photographs and plans of the original building*

### 2.3 Maintaining Old Buildings

Old buildings benefit from routine maintenance. It should be remembered, however that old buildings have unique characteristics, and it is generally undesirable and sometimes very damaging to try and reverse the effects of age on materials.

While some maintenance can be undertaken by property owners, some types of work such as addressing damp problems or the repointing of masonry requires the expertise of tradespeople experienced in conservation work.

Maintenance is one of the most important parts of conservation work. Regular maintenance should be a regular part of any property management. This means that problems such as water penetration, termite infestation or vandalism do not get out of hand requiring substantial costs to repair.



*Regular maintenance is one of the most important parts of conservation work.*

#### **Repairing and Maintaining Roofs**

- Roofs may contain a number of different elements including sheeting or covering chimneys, cappings, roof vents, eaves, pediments, guttering, barge boards and fascia boards.
- Original roof material should be repaired rather than replaced wherever possible. However if it is necessary to replace it, materials should generally match in size, shape, colour and texture.
- Original chimneys, original cornices, eaves details, brackets and pediments should be preserved as an important part of the composition of older buildings.



- When repairing or replacing corrugated iron roofing, small details should be retained or matched to the original. Such details include cutting of ridge and hip cappings to match the iron flutes which also make the roof more weatherproof.
- Traditional stepped flashings, roof vents, gutter moulds, and rainwater heads should be preserved and restored wherever possible during re-roofing.
- Appropriate profiles for new guttering are important, such as ogee, half-round or quad styles.
- Round downpipes common until the early twentieth century should be used where appropriate.
- The retention of existing slate roofs will generally be required as this roof type is now rare in the area and complete replacement is likely to be very expensive. The repair of slate roofs will often require skilled tradespeople.



*When re-roofing a building, it is important to match or keep original detailing*

### **Repairing and Maintaining Rendered Walls**

Render or stucco was often applied to external walls to protect them from the elements. This type of surface should not be removed, as softer porous bricks underneath the render will quickly deteriorate without their protective barrier.

External render was usually lime based, and was therefore absorbent. Modern strong cement renders, however can cause dramatic decay. Once in the wall, moisture becomes trapped and underlying soft brick and stone can severely breakdown.

Cracked or damaged traditional render should be repaired with a similar compatible render, not cemented and painted over.



*Cement render and its attempted removal can cause major damage to brickwork*

### **Repairing and Maintaining Face Brick or Stonework**

Face brick or stone should not be painted over. Buildings with this treatment were designed specifically, often using brick patterns, or tuck-pointing.

Paint systems also tend to prevent the evaporation of moisture from the surface. Unless moisture can evaporate from the inside of the wall surface, the moisture content of the wall will increase.

In hot weather moisture behind the paint film will increase, and cause blistering. As the surface layer of paint begins to break down, further water penetration can lead to increased dampness.



*A fine example of a Victorian Italianate brick building with face brick and rendered detail on Church Street, Maitland*

### **External Cleaning and Paint Removal**

Cleaning paint from stone or brick should not be undertaken without expert advice.

Sandblasting or abrasive cleaning of masonry may remove the outer masonry surface and increase deterioration of the exposed surface.

This can ruin the appearance and de-value the building. Other less severe methods of cleaning are required.

### **Waterproof Stone and Brick Coatings**

The application of waterproof coatings or varnishes should be avoided as they can accelerate the deterioration of the masonry by trapping moisture. Damage can occur when water cannot escape and layers of salt build up below the surface.

Often the best solution for water penetration is repointing.

### **Mortar and Repointing**

Repointing of masonry is often a key part of conservation work. It is very important to ensure that repointing is carried out properly using appropriate materials and techniques.

Mortar was originally intended to encourage the evaporation of moisture from the joints rather than the masonry units. A soft lime mortar with a rough texture and lower strength than the surrounding masonry should be used for pointing work.

Grey cement should not be used in buildings where lime mortars are present. This is particularly important in old buildings where no damp proof course exists

Grey Portland cement is invariably stronger and of a different absorbency level from the brick or stonework. This causes evaporation to occur in the stone or brick more easily than the replaced mortar joint. Deterioration and cracking of masonry may therefore occur quickly after repointing in hard cement.

### **Rising and Falling Damp**

Some masonry buildings suffer from rising and/or falling damp. It can cause crumbling of exterior masonry, staining of internal finishes, and cause musty smells in poorly ventilated rooms.

Rising damp can have a number of simple or complex causes. Gutters and drains or sprinklers may be soaking and pooling on ground near a wall, concrete floors might be forcing water up a wall.

Before deciding how to fix the problem a number of alternatives may be suitable including improved sub – floor ventilation, eliminating the water source and improving site drainage, or as a last resort inserting a damp proof course for severe cases.



Specialist advice is recommended to avoid large financial outlays which may not fix the problem.



*Rising damp and salt attack can lead to serious deterioration of masonry*

## 2.4 Conserving Building Elements

### **Getting the details right**

When a building is designed, there is generally a consistent approach to details such as window frames, sills, skirting boards, verandah posts and brackets. These existing original features should be retained and maintained.

New work or repair of the existing details should be in keeping with the original design. The imitation of something from another place such as introducing aluminium lace or shutters is not appropriate as it can detract from the appearance and authenticity of the property.

Missing components such as verandah brackets, fences, and chimneys should be copied carefully and reinstated in their original style.

Internal details such as door and window handles were often special decorative features of a house, and should be retained. Reproduction details can be expensive, so it is preferable to use originals where possible.



*The retention and repair of original building elements and details such as verandah posts, fencing, windows and doors is an important part of maintaining the significance of the building and character of an area or street*

## Doors and Windows

Original external building features such as timber windows and doors should be retained in their original configuration and dimensions.

Timber was generally painted externally, not varnished. Priming undercoat and top coat provides the optimum protection against weathering.



*Original window details should be retained*

## Shopfronts

Early photos of Maitland's buildings show a wealth of variety and richness in its early shopfront details. They are characterised by deep timber mouldings and colour.

Original examples which remain today have value and should be preserved. Later shopfronts while not original to the building may also contribute positively to the streetscape and should also be preserved.



*Original shop fronts add variety and richness to the streetscape and should be preserved*



*Early shop fronts are characterized by deep timber mouldings and the use of colour*



## Internal Alterations

The removal of internal walls is generally not recommended as this can impact on the structural stability of the building in addition to its integrity and character.

The majority of walls in older buildings are load bearing. The structural stability of the outer shell is dependent on the internal existence of walls, stairways and chimneys. It is therefore important to avoid:

- radical intervention in the interiors of older buildings;
- Subdivision of rooms.

Original details such as panelling, ceilings, skirtings, architraves or remaining door and window furniture, should be retained.

Where fire safety upgrading of buildings is required this should be achieved in as sensitive way as possible. The NSW Heritage Office has published a manual titled "Heritage on Fire" which provides practical solutions to fire safety issues.

## Lath and Plaster

Where lath and plaster remains in listed heritage items, the comprehensive replacement of walls and ceilings should be avoided. It is possible to re-adhere lath and plaster finishes where plaster is cracked or drummy.

Specialists in this field are available to provide advice and expertise.

## Timber

Keeping timber dry is very important to reduce the risk of wood deterioration as a result of fungal rot, attack by borers and termites, and swelling and shrinkage cracking.

It is essential, therefore, that roof drainage, guttering and stormwater drains are operating properly, and that surface water is drained away from walls.

Coatings such as paints, varnishes, waxes and oils are the principle means of controlling swelling as well as protecting and enhancing timbers.

Wooden items need regular maintenance and should be inspected every six months. Subfloor spaces should be inspected for signs of rot and termites, and roof spaces for evidence of leaks which may lead to fungal growth.

## Timber Repair

Sometimes wood is so badly deteriorated that it needs to be replaced. It is good conservation practice to replace the minimum necessary, and to use the skills of a carpenter or joiner.

The aim should be to reconstruct the original form of the damaged section so that the repair does not detract from the appearance of the original work.



*Wooden items need regular maintenance and should be inspected every six months*

## Landscaping and Fencing

Early plantings are important elements of a Conservation Area or heritage item. They can often be landmarks and contribute to the setting of a building. The maintenance or restoration of gardens can add to the authentic conservation of a building.

Original fences also contribute to the significance of a building or area and should be retained and maintained. These may be very modest in scale but everyday fences play an important role in establishing and maintaining the heritage significance of an area.

Gardens have changed in fashion, like buildings over time. Gardens in Victorian times were influenced by English designs which used introduced plantings in symmetrical patterns. Later Federation gardens in the 1900's used curved beds and paths combined with a mix of introduced and native plants.

A number of reference books are available on Australian styles of landscaping (see Appendix 6, Heritage References).

The planting of certain tree species near the footings of load bearing buildings should be avoided as they can lead to the drying out of subsoils and may result in the structural failure of the building. When gardens are placed too close to buildings, problems may also occur due to changed moisture or ventilation conditions.



*Federation gardens typically used curved beds and paths with a mix of introduced and native plants*





*This original fence contributes to the character of the building and surrounding area*



*This palisade fence in Morpeth is notable as a landmark*



*Some fences may be modest, but everyday fences contribute significantly to the character of the building and the area*

## Colour Schemes

Repainting of buildings should occur as part of general maintenance. Colour schemes which are in keeping with the period of the building will enhance its character and the surrounding area.

Painting in a colour scheme suited to the age of a building can be well researched using a number of resources. They include:

- Paint scrapes in areas which have not been overly exposed to reveal previous colours used.
- Old black and white photographs which show shades on different elements of the building.
- An understanding of traditional colour schemes, which can be obtained by referring to books written about the subject (see Appendix 5, Heritage References).



It is not usually necessary to repeat the use of original colours, but research is often helpful to understand how different areas were treated.

Paint manufacturers have developed heritage colour ranges which are useful when deciding on suitable period colours.

*An understanding of traditional colour schemes can be obtained by referring to books written about the subject.*

The dominant use of bright corporate colours on building facades is generally inconsistent with maintaining the heritage character and significance of a building and/or Conservation Area. Well placed and proportioned signage can provide the clear information needed for effective street presence of a business.



*Colour schemes which complement the style of the building will enhance the character of the surrounding area.*

## 2.5 Change of Use

Each new use will inevitably bring change to the fabric of the place. When considering new uses it is important to try and ascertain what the likely impact of a proposed use will be.

Will the changes affect the significance of the place? Will they be minor or reversible?

If the original use of a place becomes redundant, finding another similar use may help in retaining the place's significance.

Sometimes a continuing historical use is the reason why a place is considered important and continuing that use is essential.

There is a danger that gradual cumulative changes will reduce the ability to interpret significant aspects of the building.

Very different uses (such as commercial uses in a former dwelling) may require significant changes to the building fabric, because of the need for amenities, or perhaps fire-rating of walls and ceilings. It is important to alter as few original features and/or materials as possible when changing the use of a building.



## C.5 – Industrial Land

### 1. INTRODUCTION

#### 1.1 Preamble

Maitland City Council is keen to promote industrial and other employment generating activity in the City. At the same time Council is not prepared to expose residents to unacceptable levels of pollution and hazards that particular types of industry may entail.

This chapter emphasises the need for applicants to fully describe details of proposed developments – particularly as they relate to potential pollution and hazards, and the measures proposed to control such risks. Apart from statutory requirements for such information, the chapter is intended to assist applicants to make applications in the most approvable form, to assist the process of informed community discussion of proposals, and to assist Council in its evaluation of proposals.

This chapter also addresses physical performance standards for industrial development. These standards are not rigid, and development proposals that do not strictly comply will be considered provided the objectives of the standard are met.

There are also a series of procedural requirements, including recommendations for consultation with key authorities before applications are submitted. In particular, applicants are strongly advised to discuss their proposals with Council staff before finalising them, both to address Council's requirements and to encourage fully documented and approvable proposals.

#### 1.2 Application

All land that is zoned Industrial or B5 Business Development under the provisions of the Maitland LEP 2011.

Section 2 applies to all industrial development irrespective of zoning.

#### 1.3 Purpose

To provide detailed guidelines for development proposals in all industrial zones, and industrial development in other zones.

#### 1.4 Objectives

- a) To encourage growth in the industrial sector, provided that new industrial development does not present unacceptable risks to residential areas or other land by way of pollution, hazards or otherwise.
- b) To encourage applicants to act in their own interests by submitting fully substantiated and documented proposals, including hazards analysis where appropriate.
- c) To encourage a process which minimises problems with development proposals, through appropriate consultation prior to applications being submitted.
- d) To provide general guidelines for applications for designated development, as to matters to be addressed in Environment Impact Statements.
- e) To assist applicants by minimising duplication of documentation required under other laws (pollution control, occupational health and safety etc.).
- f) To encourage visual and operational compatibility between industrial development and residential areas.
- g) To encourage improvements to the character and appearance of industrial estates, including the inclusion of development appropriate landscaping elements.

## 2. SCALE OF DEVELOPMENT

Proper consideration of industrial development proposals relies on an understanding of what actually is involved and what is the real nature of hazards and risks. It is essential, and in the applicant's interests, to fully describe the proposed development.

This may include quantities and particular qualities of raw materials and finished products, particularly in terms of:

- toxic qualities
- handling procedures
- manufacturing processes involved
- by-products in the event of fire
- risks in the event of flood
- cumulative risks associated with quantities, and with goods stored in adjoining development
- procedures required by occupational health and safety regulations
- measures required for safe storage (e.g. bunding etc.)
- volumes to be transported, manner of transport and probable routes
- the amount and nature of waste to be generated and the proposed means of disposal
- fire safety measures in buildings and storage areas.
- Whether any other licence or approval is required under other legislation, and the measures proposed in the development to obtain that licence or approval.

An accurate description of the proposed development will assist the applicant and Council in defining the use and establishing the overall scale of the development.

## 2.1 Designated Development

A number of development types are identified as 'designated development'. This category identifies development that has an increased potential to have adverse impacts on the environment, either due to the scale or nature of the development, or their location near sensitive areas, such as wetlands. As such, a more rigorous environmental assessment process is required, including the consultation process and the appeals procedure. In this instance, an Environmental Impact Statement (EIS) must be prepared to accompany the Development Application. The requirements for the preparation of an EIS and the procedure to be followed are contained in the EP & A Act and Regulation.

Schedule 3 in the *Environmental Planning and Assessment Regulation 2000* lists certain development types as 'designated development' as well as environmental planning instruments, such as State Environmental Planning Policy 14 – Wetlands.

The description of 'designated development' is not precise in a number of instances, and Council has some discretion about whether a particular development may be included. Early consultation with Council's Development Assessment Staff is recommended.

It should, however, be noted that if a particular development is excluded from "designated development", procedures may be different but a high level of descriptive and supporting information will still be required.

## 2.2 Integrated Development

In general, documentation required for licences and approvals under other legislation should be seen as largely compatible with the information required for a development application.

## 2.3 Other Development

Industry which is not designated development but which involve:

- \* use or storage of chemicals or chemical products
- \* use or storage of petroleum, oils or other inflammable goods
- \* potential air, water or noise pollution, including offensive odours and dust or other particular product
- \* generation of toxic or other contaminated wastes
- \* use of explosive substances
- \* projects or materials which may create toxic or dangerous by-products in the event of a fire
- \* any other hazard or risk



Council will require that the Statement of Environmental effects addresses all of the matters referred to above as are relevant. Consultation with Council's Development Assessment Planners should occur to establish what issues are relevant and the degree of detail required. In general it is advisable to provide more information rather than less, and applicants should note that Council has the power to require that additional information be submitted before applications are determined.

The recommended process of consultation with Council staff is also intended to distinguish minor and inoffensive industrial development proposals, for which the necessary level of documentation may be relatively minor.

### **3. DEVELOPMENT GUIDELINES**

#### Design and Appearance of Buildings

1. The external walls of industrial buildings shall be of profiled colour-treated cladding or masonry materials, or a combination of both;
2. Particular consideration shall be given to the design and use of the above materials in the street elevation of industrial buildings, particularly where such buildings are in close proximity to residential or commercial neighbourhoods or front main roads.
3. Where the side or rear elevation of an industrial building is visible from residential areas, colours and wall profiles should be selected to minimise their visual impact.
4. Buildings should be designed to be energy efficient through the use of insulation, correct orientation on the site, passive solar design and other energy saving technologies.
5. Where the site is liable to flooding, accurate information on ground and building levels should be provided. This should be related to proposed measures for evacuation, safe storage and hazard reduction in the event of a flood.

#### Landscaping

6. The following areas of the site shall be landscaped:
  - i) The front setback area to a minimum depth of 5 metres;
  - ii) The side and rear setbacks if visible from residential areas or a public place;
  - iii) The perimeters of open storage areas are to be landscaped as necessary to provide screening from public view;

- iv) Car parking areas are to be landscaped to provide shade and to soften the visual impact of parking facilities (refer to diagram).
7. A physical barrier of kerb is to be constructed between all landscaped and grassed areas, and areas for the standing or manoeuvring of vehicles on the site.
8. Where practicable, parking areas in the front of building could be constructed at a lower level, to increase the effect of frontage mounding and landscaping in screening parking areas.
9. A detailed plan is to be submitted with the development application and is to show the location and species of all planting and all other landscaping works to be carried out. In this regard Australian native plants will grow faster and require less attention than introduced species. A brochure of suitable species for the Maitland area is available from Council.
10. Landscaping treatment should be designed to complement any existing vegetation and any landscaping of roads and other public spaces.

#### Vehicular Access

11. Access drives shall have a minimum width of 6 metres (Note: Major traffic generating developments may require a greater access width, divided at the property line).
12. Access drives shall not be located in close proximity to an intersection.
13. Loading and unloading facilities appropriate to the particular development are to be provided on site such that service vehicles are located wholly within the site, and do not create conflicts with parking areas.

**NOTE:** *Should developers require more detailed technical information regarding vehicular movements to, from and within the site their attention is drawn to the Traffic Authority of New South Wales publication "Policy and Guidelines" which is available for perusal at Council's Town Planning Department.*

#### Parking

14. See C.1: Vehicular Access and Parking for number of parking spaces required.
15. All car parking facilities shall be located behind the front 5 metre landscaped area;
16. Where it is proposed to locate parking facilities behind an industrial building or to the rear of an industrial site, separate provision for visitor parking shall be made in front of the building and behind the front 5 metre landscaped area.

17. Car parking bays are to have a minimum construction standard of a two coat bitumen seal, be clearly delineated, and have dimensions of 2.6m width x 5.5m length.

### Setbacks

18. Front building setback shall be determined on the following criteria:
  - i) Provision of landscaped area to a minimum depth of 5 metres;
  - ii) Provision of car parking facilities;
  - iii) Building height, bulk and layout;
  - iv) The nature and needs of the industrial activity;
  - v) The general streetscape.
19. Side and rear setbacks shall be as specified by Ordinance 70.

### Storage Areas

20. External storage areas are to be located to the rear of the site and be screened from public view by means of fencing and/or landscaping.

### Advertising Signs

21. Advertising signs and structures shall be of a size, colour and design which is compatible with the building to which they relate and is streetscape;
22. Advertising signs and structures may be located as follows:
  - a) Single Occupant Industrial Sites:
    - i) One free standing advertising structure may be constructed within the front 5 metre landscaped area of the site; and
    - ii) One advertising sign may be placed on the façade of the building, but shall not be higher than the building roof line;
  - b) Multiple-Unit Industrial Sites:
    - i) One index board may be constructed near the site entrance or within the front 5 metre landscaped area, detailing the unit number, tenant and product of each occupant of the industrial site; and
    - ii) One advertising sign may be placed on the façade of each unit, but shall not be higher than the building roof line.

All advertising signs are subject to separate approval from the Council.



### Drainage

23. Security fencing, wherever possible, is to be located within or behind the front 5 metre landscaped area.

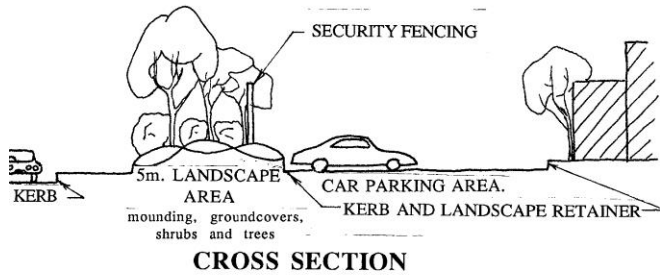
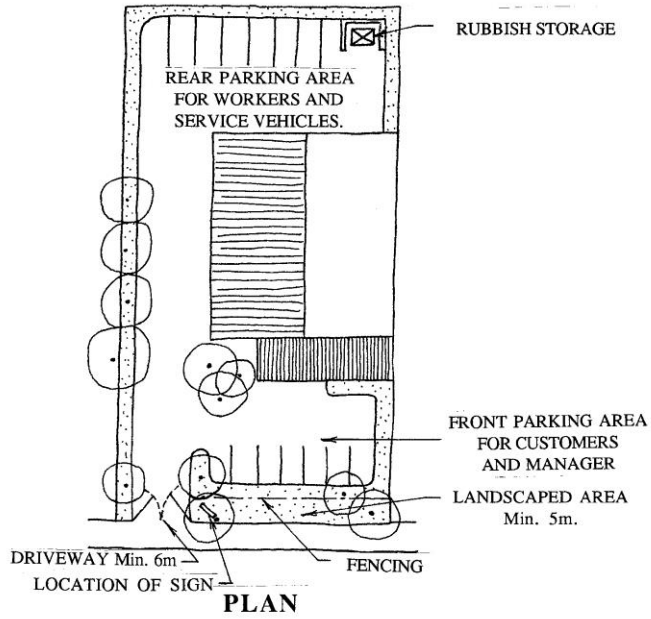
### Security Fencing

24. Security fencing, wherever possible, is to be located within or behind the front 5 metre landscaped area.

### Compatibility

25. Windows, doors and other wall openings should be arranged to minimise noise impacts on residences, where an industry is located within 400 metres of a residential zone;
26. External plant such as generators, air conditioning plant and the like should be enclosed to minimise noise nuisance;
27. External and security lighting should be directed and shielded to avoid light spillage to adjoining residential areas;
28. Driveways should be arranged or screened to avoid leadlight glare on residential windows;
29. Hours of operation may be limited if extended operation is likely to cause a nuisance to adjoining residential areas (including nuisance from traffic).

### TYPICAL INDUSTRIAL LAYOUT



## C.6 – Outdoor Advertising

### 1. INTRODUCTION

#### 1.1 Preamble

Councils generally over the years have tended to consider the control of outdoor advertising as a low priority.

However, this view is now changing with a growing awareness that outdoor advertising may have a significant impact on the environment. The importance of well designed, properly located and maintained outdoor advertising signs in scale and character with the area in which it is displayed is now recognised.

Outdoor advertising can add vitality and interest to an area and many people would consider a town or city without it dull and uninteresting. Conversely, signs may detract from the streetscape when they are cluttered, disordered or due to size, shape, location and character of the individual sign. Poorly designed signs look unattractive and amateurish while redundant, derelict or poorly maintained signs may look out of place.

Outdoor advertising occupies significant “public visual space” and this space should be allocated fairly and uniformly to benefit the city having regard to the competing needs and expectations of the whole community.

This chapter seeks to achieve a balance which respects the right for effective outdoor advertising without adverse environmental impact.

#### 1.2 Application

All land within the Local Government Area of the City of Maitland, to which the Maitland LEP 2011 applies.

#### 1.3 Purpose

To provide detailed guidelines for people wishing to carry out outdoor advertising.

#### 1.4 Objectives

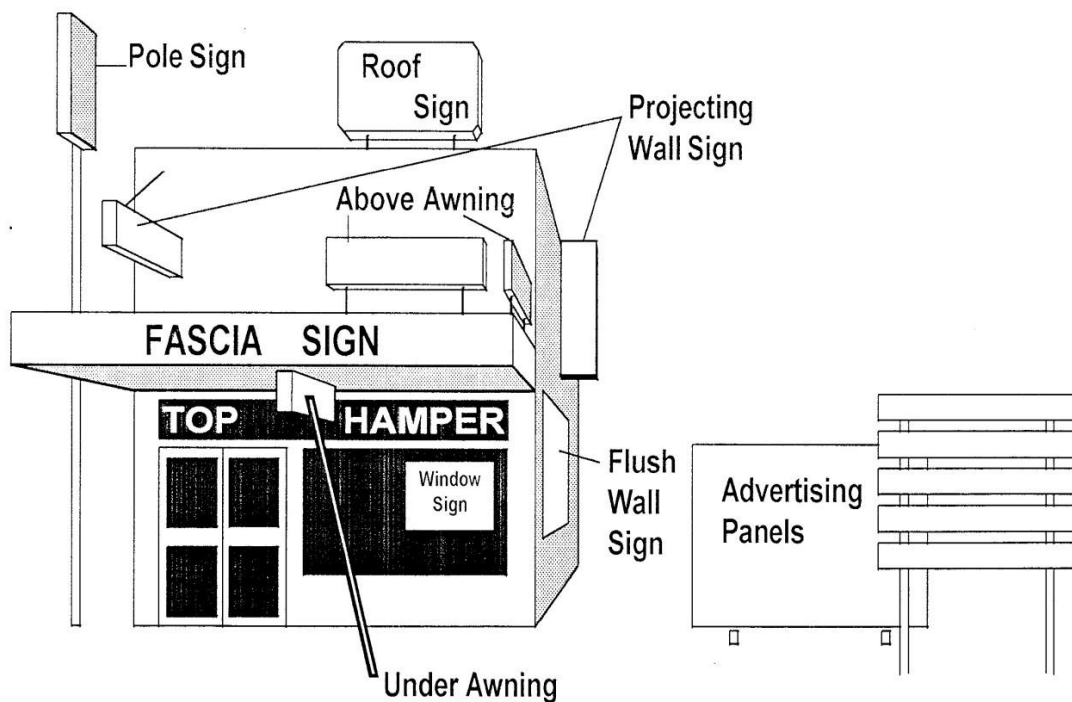
- Provision of good quality, well maintained signage which is adequate and effective in promoting the City’s tourist attractions, trade, commerce, services and facilities without being detrimental to the amenity and character of the area.



- To provide signage which is complementary in scale and form with the built environment and the streetscape as a whole.
- To establish common criteria for the assessment of applications for outdoor advertising.
- To ensure that outdoor advertising is in sympathy with historical buildings and historical precincts.
- To achieve a gradual replacement of existing signs with new, good quality, well maintained signs through incentives balanced by strong enforcement.
- To provide user friendly directional signs to meet the needs of visitors and residents in locating facilities, places and services.

## 2. SIGN TYPES

The following diagram illustrates some of the more common forms of advertising signs.



### 3. GUIDELINES FOR OUTDOOR ADVERTISING SIGNS

1. Signs should be simple, clear and concise. In some cases graphic symbols may be more effective than words.
2. Signs should fit the structure of the building and be complementary to the building.
3. Historic buildings and places should be treated with sympathy and signs should not obscure or overwhelm the architectural features of the building or place. Traditional sign materials of the era should be used rather than plastics, Styrofoam, opalescence and similar materials.
4. Signs in rural and environmental protection zones should only advertise facilities, activities or services located on the land or be directional signs to tourist or historical interest.
5. Multi-tenancy development signage to be uniform size, shape and of similar construction.
6. Wall signs shall be restricted to 25% of the visible wall surface.
7. Signs resembling road or traffic signs are prohibited.
8. Signs are to be properly maintained.
9. Footpath signs are prohibited.
10. Rationalisation of signage is encouraged.
11. Temporary signs and banners are generally not encouraged but when allowed, are subject to strict conditions of approval and removal following the event.
12. Signs requiring substantial supporting structure may require detail design plans from a practising Structural Engineer.

#### Signs Not Acceptable:

- a) Signs in rural, residential and environmental protection zones where they do not relate to activities and development situated on that land with the exception of directional signs to place of tourist on historical interest.
- b) Signs which project from the building facade and obstruct the view of the streetscape.
- c) Signs fixed to trees, light poles or the like.
- d) Signs that interfere with traffic lights or signs, obstruct lines of sight or signs that are inconsistent with RTA requirements.
- e) Signs that are unsightly, objectionable or injurious to the amenity of the locality.
- f) Signs attached to parked vehicles/trailers or the like.
- g) Portable signs on public footways/road reserves.
- h) Numerous small and cluttered signs duplicating information.
- i) Signs not on land to which they relates other than in commercial/industrial zones.

### 4. LICENSING STRATEGY, FEE STRUCTURE & ENFORCEMENT

A single annual licence will be required for a single advertising sign or where applicable a group of designated advertising signs at each separate property or in the case of multi-occupancies, to each separate business premises.

An annual license will be required for each separate premises or in the case of multi-occupancies for each separate business premises displaying advertising or proposing changes to existing advertising signage. This is regardless of the number of signs being displayed at each separate premise or business.

Applicants proposing new advertising at premises or businesses not at present displaying advertising shall be liable for an annual licensing fee which includes the Council cost of processing the license in accordance with the requirements this chapter.

- All new or altered signs will first require an initial sign application which will be assessed under the terms of this Development Control Plan.
- All premises within the City of Maitland displaying outdoor advertising will require annual licensing approval from Council.
- Signs inside buildings will not require approval or licensing.
- Change of message will not require approval.
- Redundant signs are to be removed following vacating premises or change of use.
- A single property/business premises licence will be required for each separate property or business premises regardless of the number of advertising signs being displayed.
- Approval is required in the first instance for the erection of advertising signs, unless exempt development.
- Signs in residential areas relating to home occupations, home businesses or home industries do not require licensing. *Note: these land uses are defined in the Maitland LEP 2011 and the definitions specify what type of signage can be used in association with these land uses.*
- Banner signs for community purposes may be approved by Council in all zones subject to consideration of traffic safety, RTA requirements and time period to be erected.

#### 4.1. Licence Fee

An annual Licence Fee as adopted each year by Council will apply.

#### 4.2 Enforcement Provisions

##### **Unauthorised advertisements and advertising structures.**

Where an advertisement is displayed or an advertising structure is erected contrary to the provisions of this Development Control Plan the Council may:-



- a) by notice in writing served on the advertiser direct the advertiser to alter, obliterate, demolish or remove the advertisement or advertising structure; or
- b) whether or not it has served a notice on the advertiser under paragraph (a), alter, obliterate, demolish or remove the advertisement or advertising structure.

Where the Council alters, obliterates, demolishes or removes an advertisement or advertising structure pursuant to sub-clause (b), the Council may recover from the advertiser all expense incurred by it in altering, obliterating, demolishing or removing the advertisement or advertising structure.

## 5. DEFINITIONS

**Advertiser** means the person who caused the advertisement to be displayed or the advertising structure to be erected, or the owner or occupier of the premises on which the advertisement is displayed or the advertising structure is erected.

**Advertising Panel** - includes a hoarding or bulletin board and is a free standing panel and should not exceed 2 metres in length and 2.4 metres in height and the top of the sign should not exceed 6 metres above the ground level.

**Awning Sign** means a sign attached either above or below an awning and shall not exceed 2.5m in length and the bottom of the sign to be not less than 2.5m above footpath on ground level and shall not project beyond the outside edge of the awning.

**Commercial Sign** means an advertisement of maximum dimensions 1.2 x 6m and only indicates the purpose for which the premises are lawfully used providing Council is satisfied that the advertising will not interfere with the amenity of the area.

**Fascia Sign** means a sign attached or forming part of the fascia or return end of an awning and is located fully within the face of the awning structure.

**Flush Wall Sign** means a sign fixed flush or painted directly onto an exterior wall of a building or not exceeding 25% of the area of such wall.

**Illuminated Sign** means any advertising device illuminated by an internal source of light in order to make the message readable.

**Pole or Pylon Sign** means a sign erected on a pole or pylon independent of any building or other structure.

**Projecting Wall Sign** means a vertical or horizontal sign attached to wall or parapet of a building.

**Real Estate Sign** means an advertisement in respect of a place or premises to which it is affixed which contains only a notice that the place or premises is or are for sale or letting together with particulars of the sale or letting and;

- a) in the case of an advertisement in respect of residential or rural premises relating to letting or sale by private treaty does not exceed 1.2m in length and .9m in height;
- b) in the case of an advertisement in respect of residential or rural premises relating to sale by auction:
  - I. does not exceed 1.8m in length and 1.2m in height;
  - II. has returns not exceeding 180mm; and
  - III. contains only the word 'auction' on the surfaces of its returns; or
- c) in the case of an advertisement in respect of commercial and industrial premises does not exceed 2.4m in length and 1.8m in height;
- d) in the case of directional signs promoting rural, residential or industrial lands sales:
  - I. Not to exceed 2.4m in length and 1.2m in height.
  - II. Approval for a maximum period of 12 months from date of approval.
  - III. Total number and locations of signs to be restricted so as to lesson the impact on the locality.

**Roof Sign** means a sign erected above the roof line or parapet of a building.

**Temporary Sign** means an advertisement or advertising structure erected or displayed to advertise community or civic projects, construction projects or other special events on a temporary basis for a period not exceeding two calendar months.

**Top Hamper Sign** means a sign attached to the transom of a doorway or display window of a building.

**Tourism Signs** means a sign strategically placed to promote local tourist attractions or facilities balanced with the objective of not interfering with the natural qualities of the Maitland rural environment.

Generally a tourism sign should not exceed 6m in length and 3m in height and the top of the sign should not exceed 6m above the ground level.

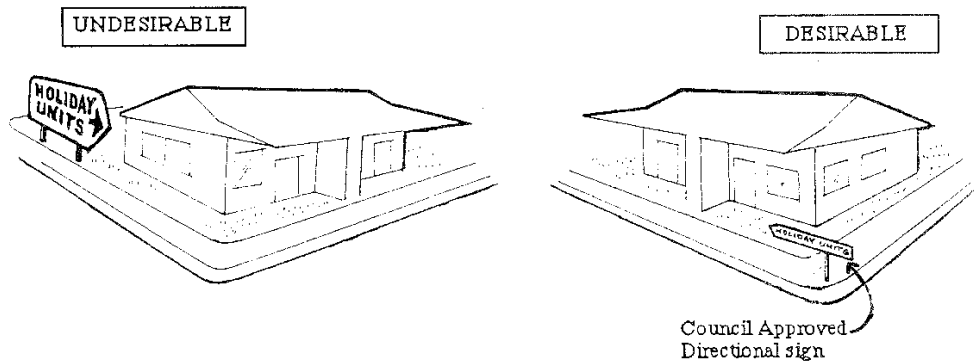
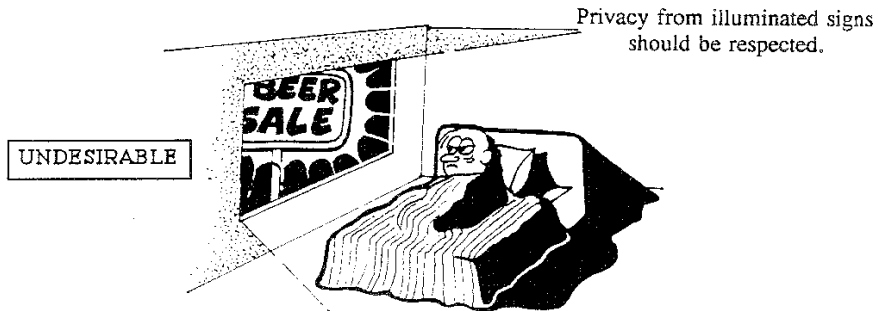
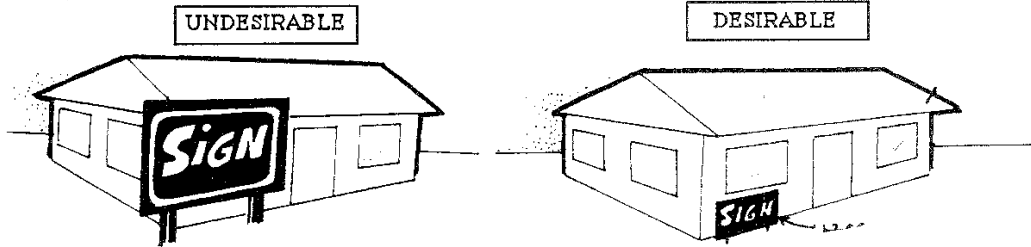
**Window Sign** means a sign painted or displayed on a shop window or any glazed area of a building.

## RESIDENTIAL ZONES

**OBJECTIVES**  
Preserve the residential amenity of the locality.  
Minimises the visual impact of signs.

### DESIGN CONSIDERATIONS

Identification and on-site advertising in residential areas should be discreet, unobtrusive and small scale in keeping with the area.





## COMMERCIAL ZONES

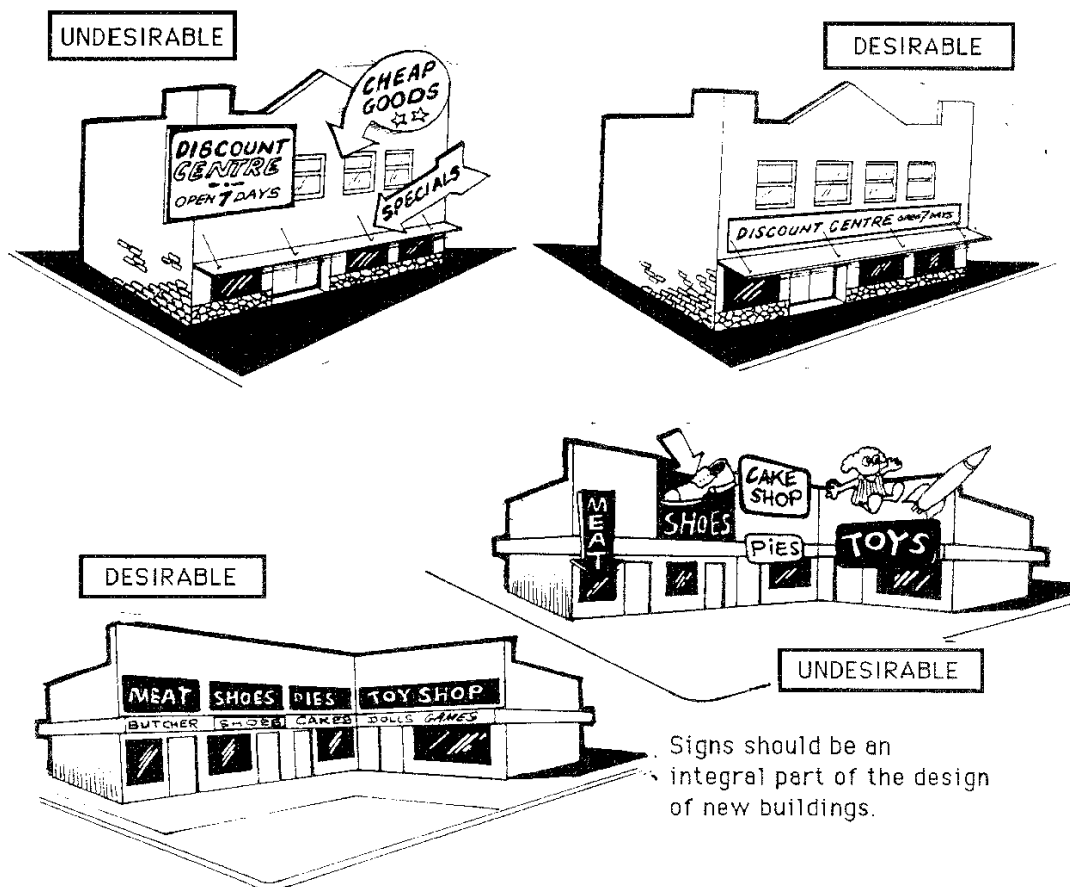
### OBJECTIVES

Permit adequate identification and business advertising. Ensure that ALL businesses have the opportunity for reasonable exposure.

Ensure that signs are in keeping with the scale and character of the building.

### DESIGN CONSIDERATIONS

A sign should take account of the need to preserve and enhance the character of environmentally significant older buildings.

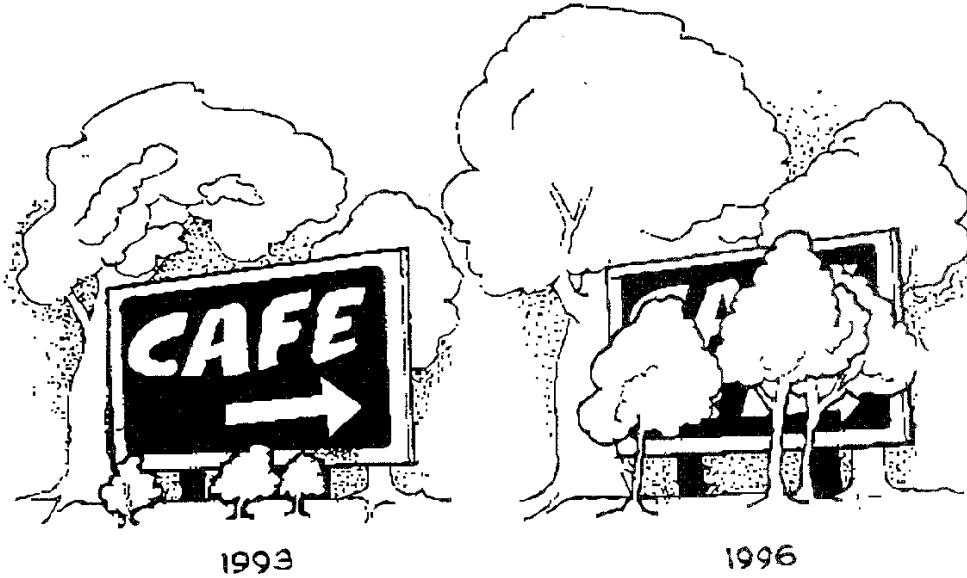


The size and style of signs should be in keeping with the building and co-ordinated with other signs on the building and the surrounding areas.

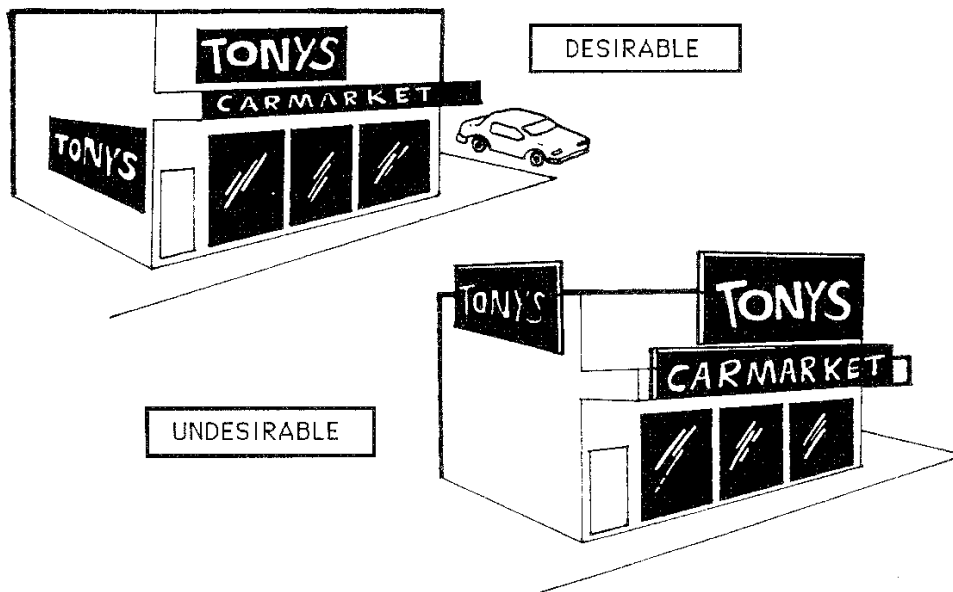
### COMMERCIAL ZONES

Consider the future growth of trees.

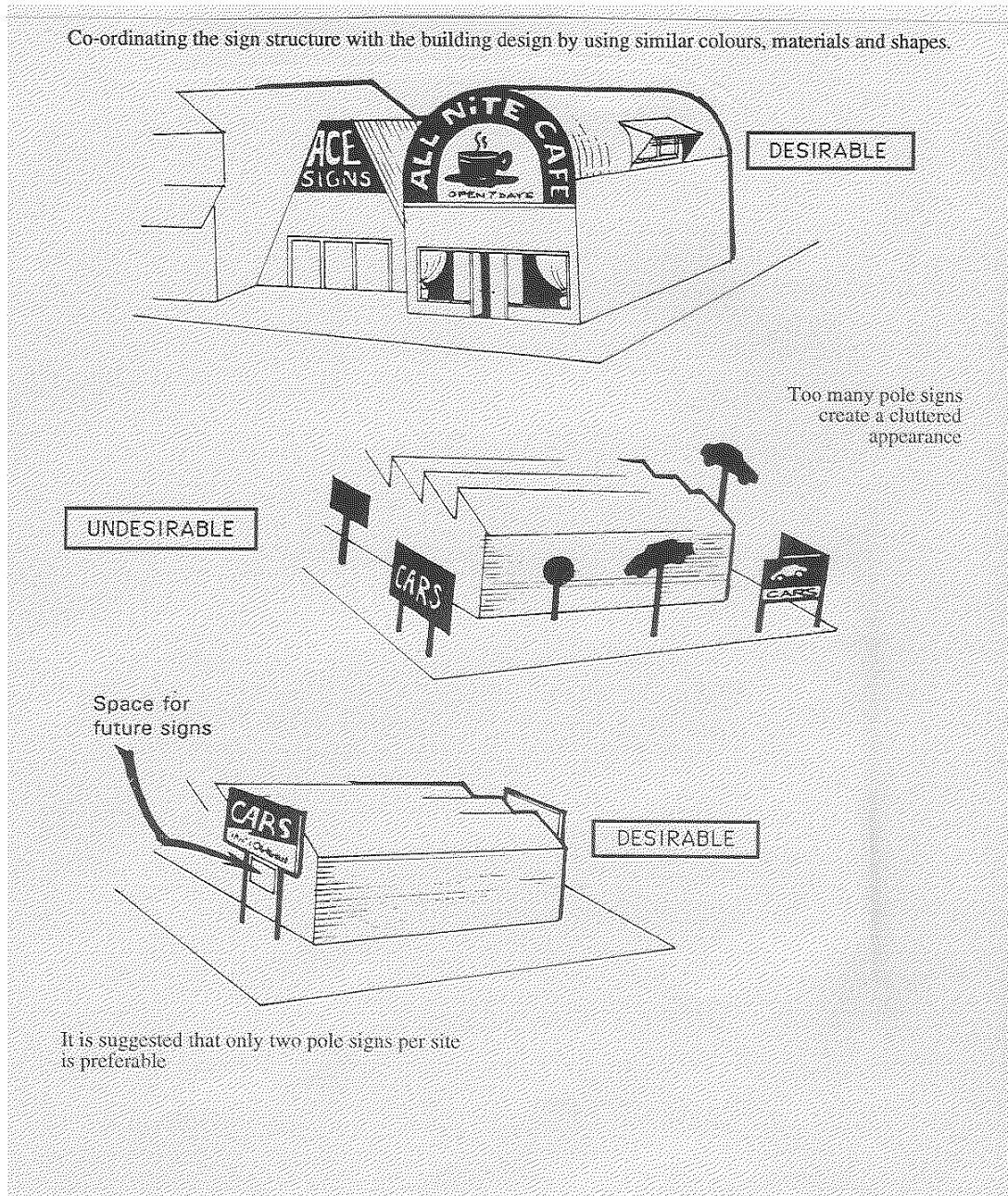
Trees should not be removed or unnecessarily lopped to improve the visibility of signs.



A sign is part of the overall design of the building and you should consider keeping the sign within the existing line and framework of the building.



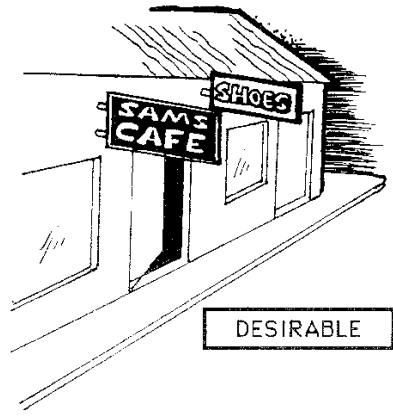
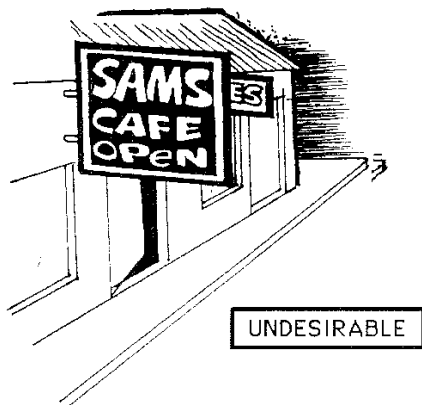
## COMMERCIAL ZONES



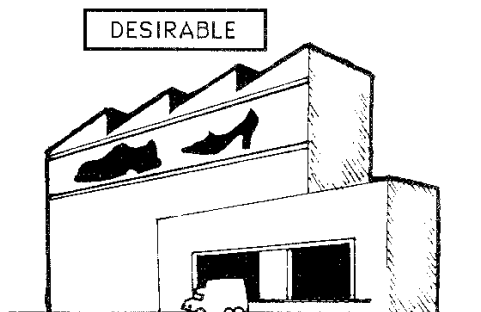
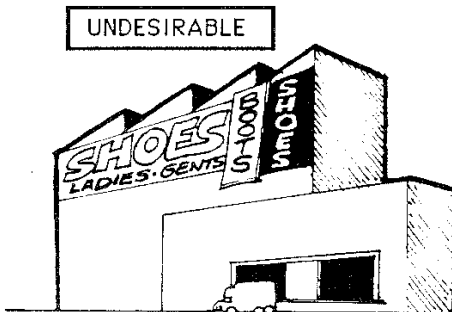


### COMMERCIAL ZONES

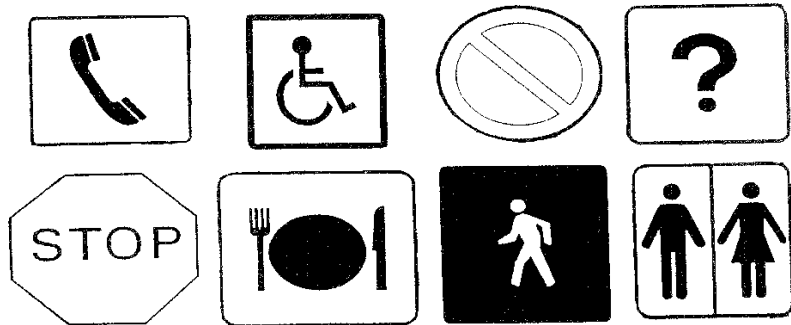
A sign should not unnecessarily dominate or obscure other signs.



Simplicity in signs, including the use of symbols, is preferred.



Remember, a symbol replaces many words.



## INDUSTRIAL ZONES

### OBJECTIVES

To permit the display of the name of the occupier and the activity conducted in the building.

To reduce the possibility of the area becoming a "de-facto" commercial area.

### DESIGN CONSIDERATIONS

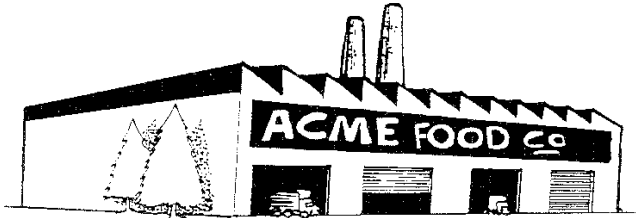
UNDESIRABLE



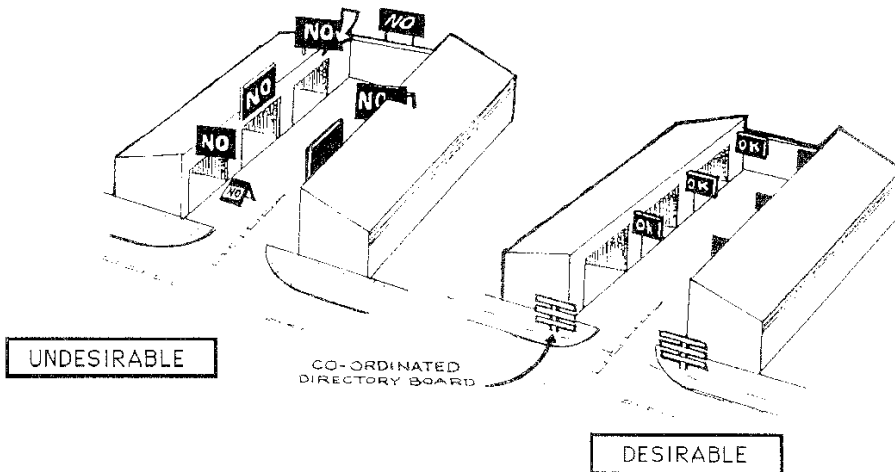
DEDSIRABLE



Signs should be for information, not product display



Bold, large signs in keeping with the scale of the building are encouraged.



Signs for multi-bay factories should be consistent in all aspects.

## C.7 – Outdoor Dining

### 1. INTRODUCTION

#### 1.1 Preamble

Council is seeking to create viable and vital commercial centres within the City, encouraging the local economy and promoting pedestrian safety.

There are a wide range of development issues, which need to be addressed to achieve a proper planning outcome for these sites. These include location and siting, pedestrian access, health and safety, visual quality, car parking, insurance and protection of heritage.

#### 1.2 Application

All land within the Maitland Local Government Area where food and drink premises may be approved under the *Maitland Local Environmental Plan 2011*.

An application for Development Consent and Council Approval (where applicable) for outdoor dining may only be made in conjunction with a food and drink premises and can be made on private or public land.

Outdoor dining on private land, is dining which is undertaken in the open air on land which is within the control of applicant.

Outdoor dining on public land is dining which is undertaken in the open air on land which is in public ownership. Such land may consist of a footpath pavement, mall or the Maitland Riverwalk under the control of Maitland City Council. This is also known as footway dining.

#### *Heritage Incentives:*

Clause 5.10 in the Maitland Local Environmental Plan 2011 provides heritage incentives for adaptive re-use of heritage items or premises within a heritage conservation area, notwithstanding that food and drink premises may be prohibited.

#### 1.3 Purpose

- To give additional guidance on the development of all outdoor dining within the Maitland Local Government Area.
- To provide guidance for the consideration of Council Approvals under section 125 of the Roads Act 1993.



## 1.4 Objectives

- To encourage, where appropriate, the establishment of outdoor dining areas in the City of Maitland to support local economic development and commercial viability;
- To increase and facilitate tourism potential and create active and vital street and river frontages;
- To promote a high quality visual environment, ensuring that outdoor dining contributes to the improvement of the streetscape;
- To regulate the use of outdoor dining areas to avoid nuisance or inconvenience to the public, and to ensure that pedestrian or other forms of traffic are not unduly impeded by the use of a public area for outdoor eating;
- To provide guidelines for implementing and maintaining outdoor dining areas to ensure that adjoining premises are not adversely affected and that the area is kept in a clean and tidy manner.

## 1.5 Statutory Requirements

Development Consent is required for all outdoor dining under the *Environmental Planning and Assessment Act 1979*. In addition any construction works will require a Construction Certificate.

Where outdoor dining is proposed for a footpath, public mall, or other public area, Council Approval is also required under the *Roads Act 1993*. Where the road is a 'classified road', approval in principle is required from the NSW Roads and Traffic Authority.

Council Approval and the associated licence will be time limited to five (5) years. A fee is applicable to both the application and renewal of these. In addition an annual charge is made for dining in public areas.

## 2. **PREFERRED LOCATION FOR OUTDOOR DINING**

Outdoor dining may be undertaken in a number of places including footways, mall, other public land (such as a river bank) or appropriate private land.

Outdoor dining will generally be acceptable in the following commercial areas, provided there is sufficient width of footpath and the minimal disruption of public amenity:

- a) Central Maitland: Council will generally support outdoor dining on the Heritage Mall footway and private land addressing the bank of the Hunter River. Here wide pavements and properties adjacent to the River Walk are able to enjoy the benefits of outdoor dining, whilst enlivening the street and encouraging use of these areas.

- b) East Maitland Shopping Precinct: Council will generally support the development of outdoor dining in suitable locations within the Shopping Precinct, centred around Lawes/High/George Street, where wide pavements exist.
- c) Morpeth: The existing commercial area on Swan Street, the historical character is essential to the village and the impact of outdoor dining will need to be carefully assessed.
- d) Tenambit: Council will generally encourage the use of informal outdoor dining with the provision of bench seating in adjacent areas. Dining tables and chairs on the pavement to the front of the shops will generally be discouraged due to width and slope of the pavement.
- e) Rutherford: Council will generally encourage outdoor dining where the footway meets the minimum width requirements.
- f) Woodberry: Council will generally encourage outdoor dining in suitable locations.

Applications for individual buildings in rural locations, or those not forming part of a commercial area, will be assessed on their merits with consideration given to additional traffic generation and parking, amenity and safety.

Council's advice should be sought prior to submitting any application.

### 3. DEVELOPMENT MATTERS

#### 3.1 Location

*Objectives:*

- To encourage the appropriate location of outdoor dining within the Maitland LGA;
- To create a sense of identity for individual localities;
- To encourage the appropriate reuse and conservation of vacant heritage buildings, heritage incentives will apply.

*Development Controls:*

An outdoor dining area will not be permitted where:

- a) There is an unreasonable hazard to pedestrians, diners or vehicular traffic;
- b) The public space is not wide enough to accommodate the outdoor dining area while still maintaining a clear pathway of travel for all pedestrians including those who use mobility aids;
- c) The ground surface of the outdoor dining area is not suitably constructed and sufficiently level to accommodate outdoor dining furniture and enable the area to be used safely and without inconvenience to pedestrians or vehicles;
- d) It extends past the building line at a road intersection;

- e) It is located in or adjacent to Heritage Conservation Areas and/or in the vicinity of Heritage Items and does not consider the character of these places.
- f) Access to public utilities, such as fire hydrants, access holes, inspection chambers, telephone and electricity underground cables, water service pipes, traffic signs and the like are inhibited;
- g) Existing street furniture such as seating, litter bins, letter boxes or telephone boxes are obstructed.

### 3.2 Site Considerations

#### *Objectives:*

- To provide sufficient clearance for pedestrian movements
- To maintain visual and physical set backs at street corners to enable safe pedestrian and vehicle movement
- To ensure that relevant considerations are made with regards to on street car parking, where footway dining is proposed.

#### *Development controls:*

Detail regarding the siting of outdoor dining is provided in *Appendix A*.

#### Where outdoor dining is undertaken on public footpath:

- a) Tables and chairs placed on the footpath or in a public area, in accordance with this policy, shall be positioned in such a way that a minimum clearance of 2 metres is maintained for pedestrian thoroughfare at all times. Greater widths may be required in areas of high pedestrian and/or high vehicle traffic.
- b) A minimum distance of 600mm shall be maintained between the limit of the seating area and the face of kerb of the road or any other area where vehicles may park and require door swing space.
- c) A minimum of a 3 metres splay, from the building line, of the dining area shall be provided on corner properties to enable a clear view at intersections for vehicular traffic.
- d) A minimum gap of 0.5 metres between neighbouring adjacent outdoor dining areas shall be maintained.
- e) Dining areas may be demarcated by barriers/screens/planting boxes.
- f) Outdoor furniture is to be confined to the approved area and must not encroach upon the adjoining footway.
- g) No outdoor furniture, barrier or structures are to be permanently fastened to the footway or Mall unless Development Consent and Approval is obtained from Council. (The erection of structures may require a construction certificate.)
- h) The outdoor dining area must be paved or sealed for its full width.



- i) The operator shall bear the cost of all pavement repairs carried out by Council, which have been caused by outdoor dining activities.
- j) The applicant/holder of the approval may be required to carry out improvements to the footway at his/her expense where the surface of the footway in the proposed area is damaged, cracked or deteriorated or is otherwise unsuitable for a dining area.
- k) Access for the repair, emergency or otherwise, of utilities or other services under the footpath may be required at any time.
- l) Convenient access to facilities (where these are required) and easy surveillance by staff shall be considered in the siting of any dining area.

Where outdoor dining is undertaken on private land:

- m) Access for any fire escape routes shall be a minimum width of 1.2 metres at all times.
- n) Convenient access to facilities (where these are required) and easy surveillance by staff shall be considered in the siting of any dining area.
- o) The erection or fixing of furniture or structures shall be required to comply with the Building Code of Australia. (The erection of structures may require a construction certificate.)
- p) Dining areas located above ground level shall not cause nuisance to neighbours. Where private dining areas front a footpath or road they shall be demarcated in an appropriate fashion.

### 3.3 Car Parking

*Objectives:*

- To ensure that the relevant car parking provisions are met for outdoor dining areas.
- To permit the relaxation of car parking requirements for some outdoor dining localities to create vibrant and vital core business district and neighbourhood centres.

*Development controls:*

- a) Neither public nor private outdoor dining areas in the localities detailed in **Schedule A**, shall be considered in the calculation of car parking spaces for food and drink premises, even where the overall floor space of the operation will increase.
- b) Public land where outdoor dining is proposed in the commercial centres detailed in **Schedule B** shall not be included in the overall calculation of car parking requirements for the business. Outdoor dining on private land shall be included within the Car Parking calculations for the premises as per the requirements in Chapter C: Vehicular Access and Parking.
- c) In any other locality, outdoor dining shall be included in the calculation for required off street car parking, irrespective of whether this is on public

or private land, as per the requirements in Chapter C: Vehicular Access and Parking.

### 3.4 Health, Licensing, Insurance and Facilities

#### *Objectives:*

- To ensure that any nuisance caused by the outdoor dining area is kept to a minimum.
- To ensure that the relevant licences and other permissions are in place to regulate the outdoor dining area.

#### *Development controls:*

#### Health

- a) The outdoor dining area shall be kept in a clean and tidy condition, shall not to be used for food storage or preparation nor result in the discharge of liquid wastes on to the footway or street.
- b) The preparation, storage and serving of all food for sale must comply with the Food Act 2003 and the Food Safety Standards.

#### Insurance

- c) The holder of the approval is to indemnify Council in writing from and against all claims arising from the holder's legal liability as a result of its occupancy. Council will not accept liability for damage to or loss of furniture or personal property from the approved area. A Public and Products Liability insurance Policy must be taken out by the applicant/holder of the approval. A Certificate of Currency of the relevant Policy, endorsed with the interests of Maitland City Council, is to be provided to Council on each renewal of the Policy.

#### Licence

- d) Where outdoor dining is proposed on public land the holder of the approval shall hold a valid footway dining licence.

#### Facilities

- e) Toilet facilities are to be available to patrons when the combined seating capacity of both internal and outdoor dining areas totals twenty (20) or greater places per establishment.

### 3.5 Amenity

#### *Objectives:*

- To provide high quality, practical street furniture to enhance the visual quality of the environment.
- To provide a pleasant outdoor dining environment to encourage diners
- To contain the outdoor dining area

*Development controls:*

Furniture

- a) The operator's furniture should make a positive contribution to the streetscape. Furniture styles must be practical and integrate with the surrounding area. It should be strong and durable and weather resistant, designed for commercial outdoor use and serviceable. Furniture must be stackable or foldable for storage purposes.
- b) Public safety must be considered and furniture must not present a potential hazard to the public.
- c) Furniture shall be designed or located such that wheelchair access is possible.
- d) Furniture shall meet the meet agreed guidelines for style, colour and materials. The accepted styles of furniture, which may be approved by Council, are shown in Appendix B.
- e) The outdoor dining furniture shall be retained within the prescribed outdoor dining area at all periods, when the business is in operation.

Advertising and signage

- f) Compliance with State Environmental Planning Policy No. 64: Advertising and Signage, the Maitland Local Environmental Plan 2011 and other relevant chapters in this DCP will be required.

Amenity

- g) There is to be no interference with the residential amenity of the area by reason of the emission of any noise or smell.

Hours of Operation

- h) The hours of operation of the outdoor dining area shall not exceed that of the food and drink premises. All furniture shall be removed from footway dining area during the hours that the business is closed.

3.6 Heritage

*Objectives:*



- To ensure that materials and siting of street furniture are appropriate to the heritage location
- To ensure that damage is prevented to heritage items and heritage conservation areas.
- To encourage the appropriate reuse and conservation of vacant heritage buildings, Heritage Incentives will apply.

*Discussion:*

In a Heritage Conservation Area or at or adjacent to Heritage Items or items subject to a conservation instrument advice should be sought from Council's Heritage Officer prior to submission of any application.

Relevant chapters in this DCP as they relate to heritage design and conservation guidelines and the Morpeth Management Plan should be read in conjunction with this section.

*Development controls:*

Street Furniture

- a) Style & Colour: Colour will only generally be allowed on umbrellas. However, the colour palate for heritage areas is likely to be limited to the natural range. Appendix B gives further details.
- b) Blinds and awnings will be considered on their merit.
- c) Screens: these may be appropriate in some areas. However, they will not generally be acceptable in Morpeth.

Sandstone Pavements

Sandstone pavements, kerbs and gutters are a significant part of the heritage in Maitland. Sandstone is relatively soft and in many cases older pavements have suffered from wear and tear. Council's Heritage Officer will advise on the appropriate type of repair and appropriately experienced specialists.

- d) Outdoor dining operators will be responsible for the whole cost of the repair and maintenance of these pavements.
- e) All items of furniture placed on these pavements shall have rubber feet/protection to provide protection to the surface and reduce the operator's future costs. Any missing or broken feet/protection shall be replaced within seven (7) days at the operator's own expense.

Heritage incentives

- f) Nothing in this DCP will prevent Council from granting consent to an application or approval for outdoor dining or food and drink premises

within an heritage conservation area or a place that is an heritage item, if it is satisfied that there is no adverse impact and where the conservation of the heritage conservation area or heritage item depends on Council granting that consent or approval.





## Schedule B

Public land in the following commercial areas, zoned for business purposes, where outdoor dining is proposed, will not be included in the overall calculation of car parking requirements for the business. Outdoor dining on private land within these areas will be included within the car parking calculations for the premises as set out in the Chapter C: Vehicular Access and Parking.

East Maitland	Rutherford
Greenhills	Tenambit
Lorn	Telarah
Metford	Thornton
Morpeth	Woodberry

# Appendix A Footpath Layouts

Figure1: Indicative dining areas

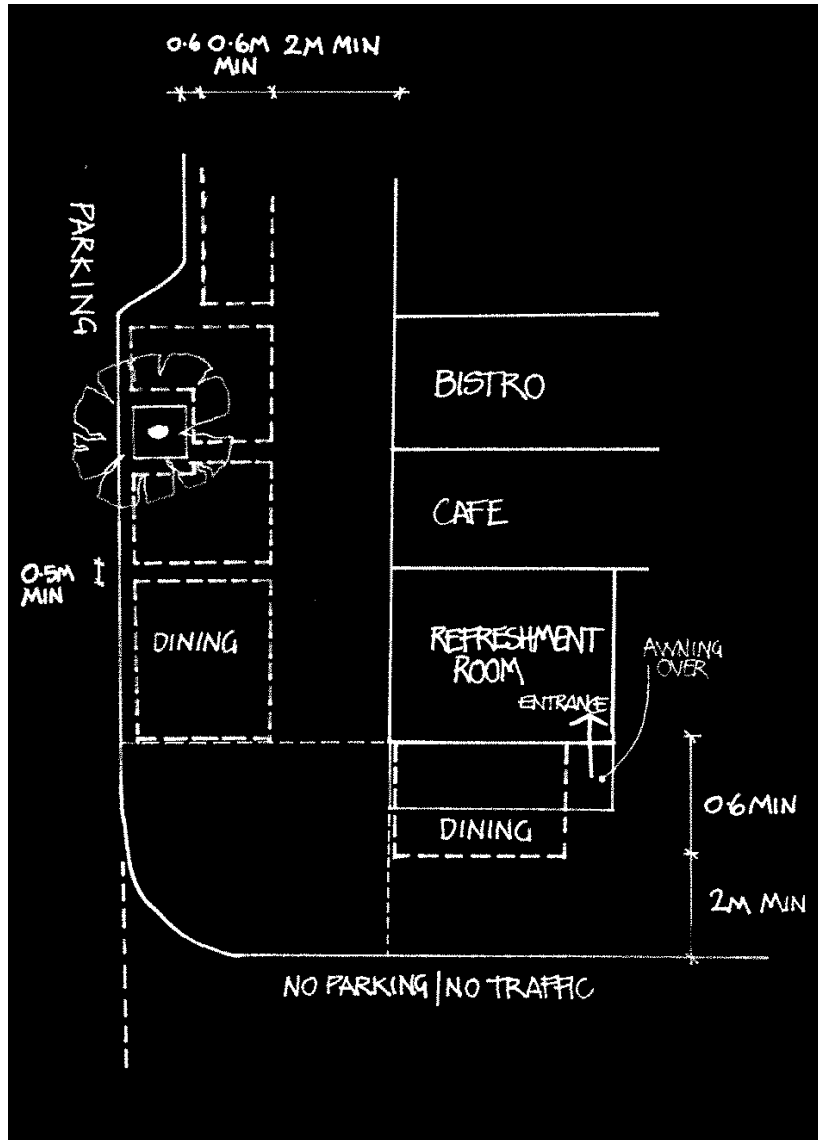


Figure 2: Indicative set back for out door dining on corner properties, where both roads are trafficked; optional location for dining area.

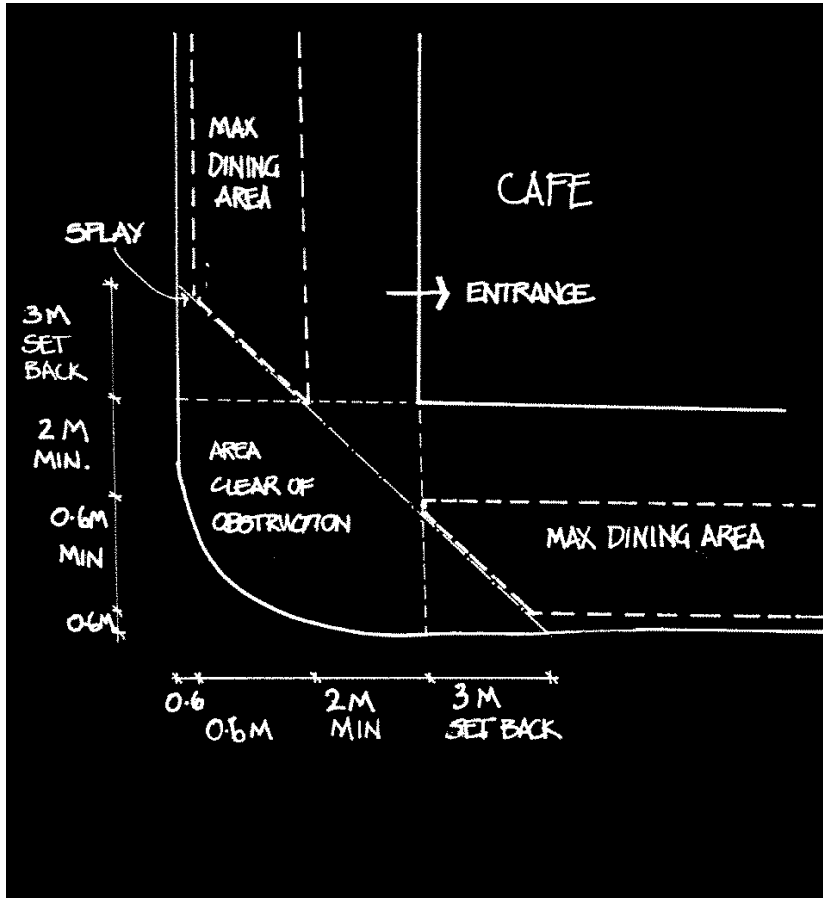




Figure 3: Wide footpath/mall layout

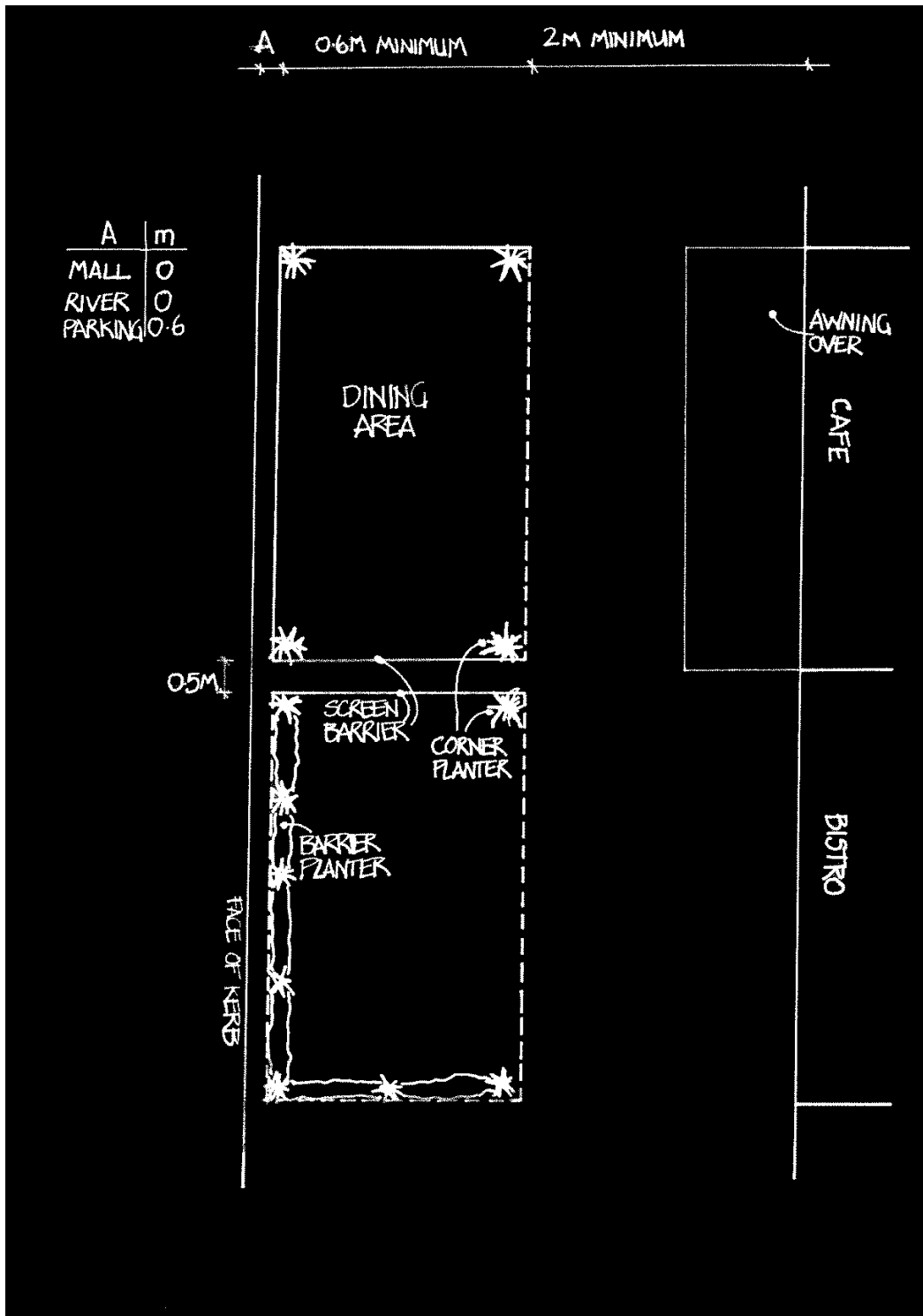
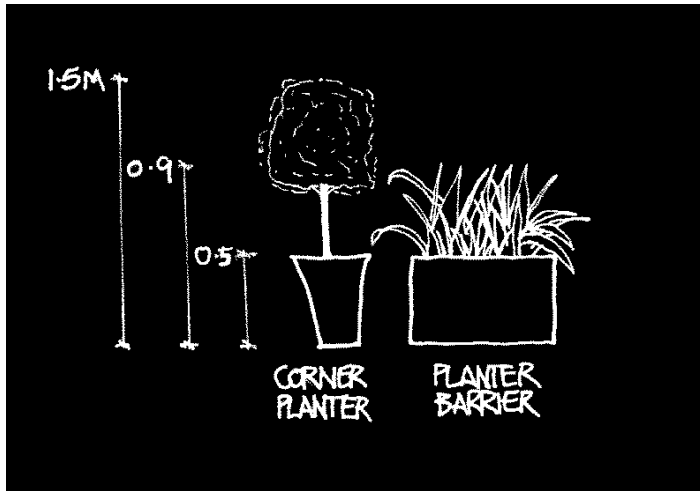
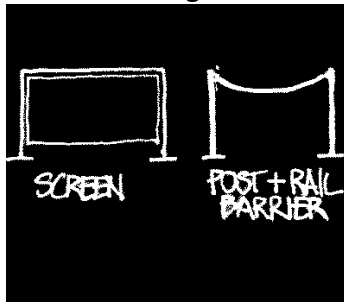


Figure 4: Demarcation options



Maximum height 0.7m



## Appendix B

# Street Furniture Schedule

### General Principles

#### Shade & demarcation

- a) Where tables and chairs are to be placed in unshaded areas (i.e. in areas not covered by an awning/verandah) operators are encouraged to provide securely anchored, but removable, protection between the hours of 12-3 is particularly important. Shade structures should not obstruct pedestrian and vehicular routes.
- b) Verandahs/canopies/awnings/blinds: These may be appropriate in some locations, to aid sun protection or to act as a wind buffer. The Conservation and Design Guideline section of the City Wide DCP discusses this further.
- c) Umbrellas: These will be appropriate where there is no awning/verandah cover and shade is required. The minimum required height clearance from the ground is 2.1 metres.

#### Type

- d) Seating and tables: shall be removable for storage during non-operational hours and stored within the premises. Stackable or folding furniture may be appropriate. Where more than 4 chairs are provided at least 40% of the chairs shall have arms, and at least 40% without, to allow use of the facilities by less able persons with differing mobility requirements. Furniture shall be designed or located such that wheelchair access is possible.
- e) Litter bins: at least one enclosed litter bin of 50 litres shall be provided on the outdoor dining area, where there are more than 20 outdoor dining chairs provided. The bin shall be emptied daily or as soon as the bin is full. The outdoor dining area operator shall ensure that all litter is appropriately disposed off and does not cause nuisance.
- f) Barriers/screens/bollards: These will only be acceptable in a few locations and may only be used to define the edge of the outdoor dining area. Generally, they will be self-supporting and stored within the refreshment room, tavern or hotel when it is closed. Barriers above 0.7 metres in height will not be acceptable. Planter boxes may also be used to demarcate an area.
- g) Planters on public land: These may be appropriate in some areas and should generally be movable for storage during non-operational hours and stored within the premises. The use of plastic plants or containers is not appropriate. Planters shall be maintained and any sick, dead or missing plants replaced within seven (7) days. Planters which are used to demark areas shall be no higher than 0.5 metres with an overall height including planting of no more than 0.9 metres and shall be wholly contained within the outdoor dining area. An individual plant pot may demark each of the 4 corners of the dining area and shall be no higher than



0.5 metres high, with an overall height including planting no higher than 1.5 metres. Plants shall be non-poisonous.

### Style

- h) Proposed tables and chairs, umbrellas and other furniture shall be constructed of materials fit for the purpose and of an appropriate style and colour. See below for information regarding advertising.
- i) Furniture should be simply styled, without elaborate detailing and should not replicate historic furniture. It should be robust and weatherproof.
- j) Suitable options include metal, unpainted frames with timber slats or wicker or high quality mock wicker or fabric seats and backs. Metal slats to the back and seat may be appropriate where the sun will not heat the seats. Unpainted timber frames with timber slats or wicker or high quality mock wicker or fabric seats and backs are an alternative. PVC seating of the moulded type which includes the frame is not acceptable.
- k) Colour: Street furniture in all case shall be of neutral colours except where specified.
- l) Generally umbrellas will be white or cream, coloured ones may be appropriate for a coordinated group of businesses, or in specific locations.
- m) No advertising material is to be shown on any of the street furniture, screens, umbrella or other shade item or within the outdoor dining area, where the area is on public land.
- n) Any styles which are overtly antique or historic in nature will not be acceptable.

### Colour

- o) In the case of an individual building, co-ordination of street furniture with a building's colours or a neutral scheme will be expected.
- p) Where there are a group of refreshment rooms, taverns or hotels together, which are not covered under the areas defined above, the umbrellas, or other furniture which is allowed to be coloured, shall either be white or a coordinated colour adopted across the group and subject to approval/consent.
- q) No neon tone, yellow or orange colours shall be used.

### **Locational considerations**

#### Central Maitland

- a) The colour of the street furniture should be natural and not detract from the historic character of Central Maitland. Reference should be made to the existing approved tables and chairs in the Mall when considering designs.
- b) Umbrellas, where appropriate should be white or natural in colour.

#### East Maitland Shopping Precinct

- c) Street furniture of unpainted natural materials and colours with strong geometric shapes will complement the simple geometric architectural styles of the Precinct. Polished silver tone metal, stainless steel and smooth timber will be encouraged.
- d) Lilac or neutral coloured umbrellas would be appropriate. .

#### Tenambit

- e) Here, the principles of 'other locations' (below) should be followed, below, with the exception of the colouring of the umbrellas, which should be red.

#### Rutherford

- f) Here, the principles of 'other locations' should be followed, below, with the exception of the colouring of the umbrellas, which should be green.

#### Woodberry

- g) Here, the principles of 'other locations' (below) should be followed.

#### Morpeth

- h) The City Wide DCP - Maitland Conservation & Design Guidelines, part 2.10.6, details street furniture for Morpeth. This section has been repealed by these provisions.
- i) The colour of the street furniture should be natural and not detract from the historic character of Morpeth. Umbrellas, where appropriate should be blue-grey or steel-grey in colour.

#### Other Locations

- j) The principles in the section titled "Amenity" should be followed where no specific schedule has been developed. Care should be taken in selecting styles and colours appropriate to the location.

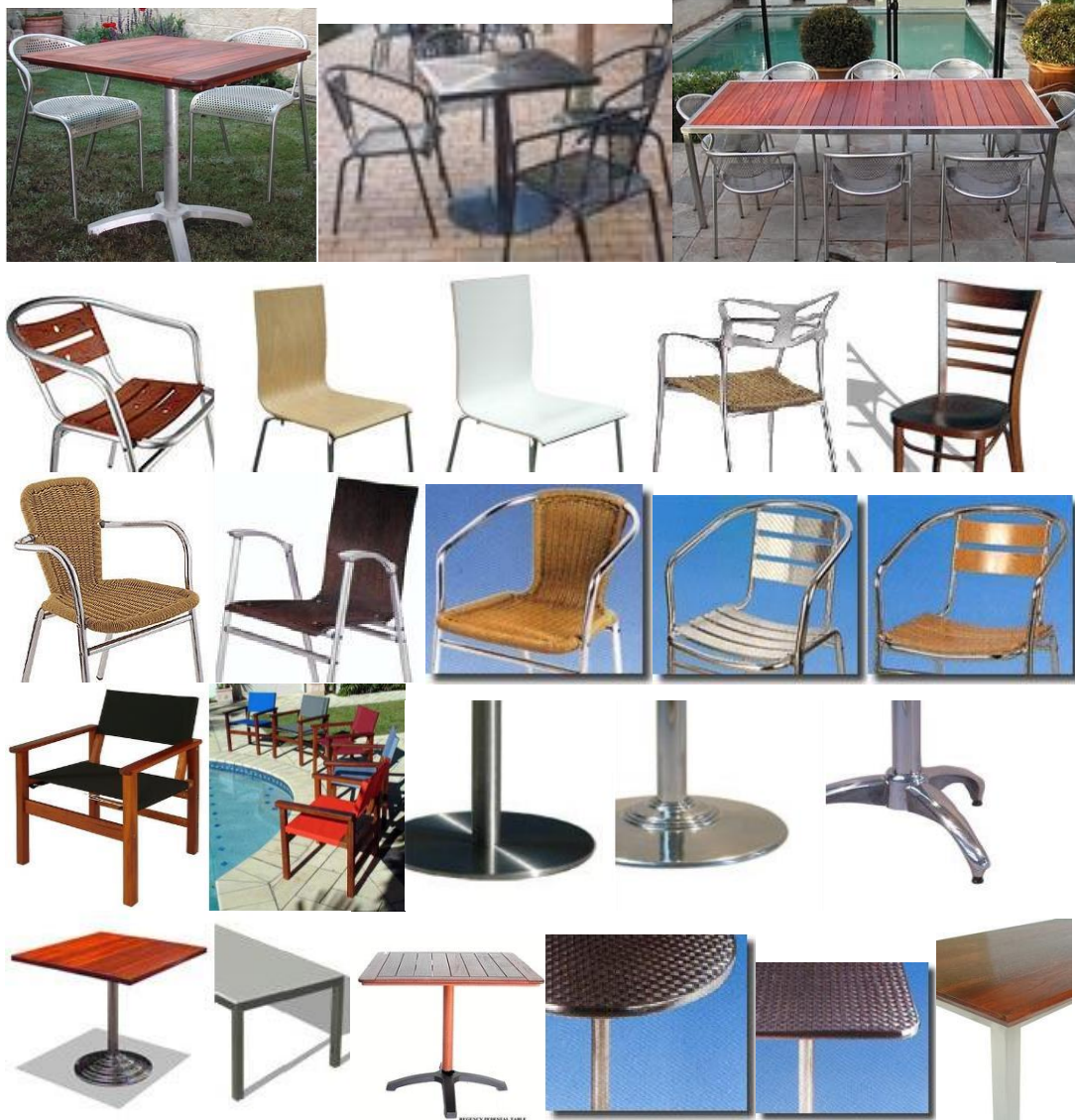
### **Colour Definition**

Natural colours are considered to be off-white, cream, beige, taupe, tan, kaki, grey, grey-brown, mocha, chocolate.

Neutral colours are considered to include all the natural colours above plus black and white.

## Indicative Designs

### Tables and Chairs

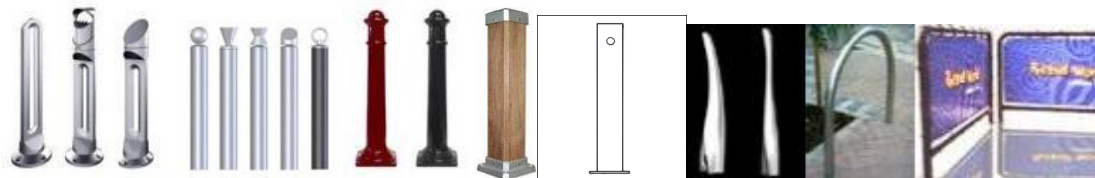




Litter Bins



Barriers



Planters



## C.8 – Residential Design

### 1. INTRODUCTION

#### 1.1 Preamble

Residential growth within Maitland requires a development response that includes both single detached dwelling-houses and other forms of housing stock, such as dual occupancies, multi dwelling housing (such as townhouses) and residential flat buildings. Acceptance of more diversity in the type of housing choice by the general community will only be realised through encouraging urban design outcomes that both respond to the environmental constraints of the site and contribute to the amenity of the locality.

#### 1.2 Application

This chapter applies to the whole of the Maitland Local Government Area where residential development is permitted. The chapter provides guidelines for the development of the following forms of housing:

- Single detached dwelling house
- Dual occupancy housing (attached or detached)
- Multi dwelling housing (attached or detached)
- Residential Flat Building (other than buildings to which State Environmental Planning Policy No.65 – Design Quality of Residential Flat Development applies)
- Senior Living Accommodation (to the extent of providing guidelines which supplement the standards prescribed under State Environmental Planning Policy 2004 – Housing for Seniors or People with a Disability)

#### 1.3 Purpose

To encourage high quality urban design and improved amenity across all forms of residential development within the City of Maitland.

#### 1.4 Objectives

- (a) To set appropriate standards for all forms of housing within the City of Maitland.
- (b) To provide measures to protect the natural and built environment and minimise conflicts which often arise through development.
- (c) To ensure that development relates to site conditions and that the amenity of adjacent residential development is appropriately considered.
- (d) To support the efficient use of residential land and expand the variety of housing options available in the City of Maitland.

## 1.5 How to Use this Chapter

Each section of the chapter contains controls which represent minimum standards that Council considers necessary to meet the objectives of the chapter.

The chapter sets out 'Design Principles' and 'Design Requirements' to facilitate the preparation of innovative design solutions that address site characteristics/constraints consistent with the 'Objectives' of the chapter.

Compliance with either the 'Design Principles' or 'Design Requirements' does not necessarily mean that a development application will succeed. Equally, a development proposal that does not meet the 'Design Principles' or 'Design Requirements' may be successful if it can be demonstrated to the Council that the proposal properly responds to the constraints and opportunities of the site and addresses the objectives of each section of the chapter.

## 1.6 Subdivision

Consideration should be given to the potential for residential developments to be subdivided into individual and/or communal lots through either Torrens Title, Strata Title or Community Title.

To encourage good overall design it is important that designers consider the requirements in Chapter C.1: Subdivisions and any locality plans (Part D), Special Precincts (Part E) or Urban Release Areas (Part F).

## 2. **DESIGN CRITERIA**

### 2.1 Site Analysis & Site Context

Before commencing the design of the development it is fundamental that the designer has a clear understanding of the environmental constraints and opportunities particular to the site and how the site relates to neighbouring land and development.

A good site analysis plan should assist the designer in developing a design solution which demonstrates "good manners" by respecting the natural attributes of the land and complementing the character of the neighbourhood. The development should minimise negative impacts on the amenity of adjoining development.

#### *Objective:*

To ensure that residential development is of a high quality and is sensitive to the existing character of the area and the opportunities and constraints of both the site and its surrounds.

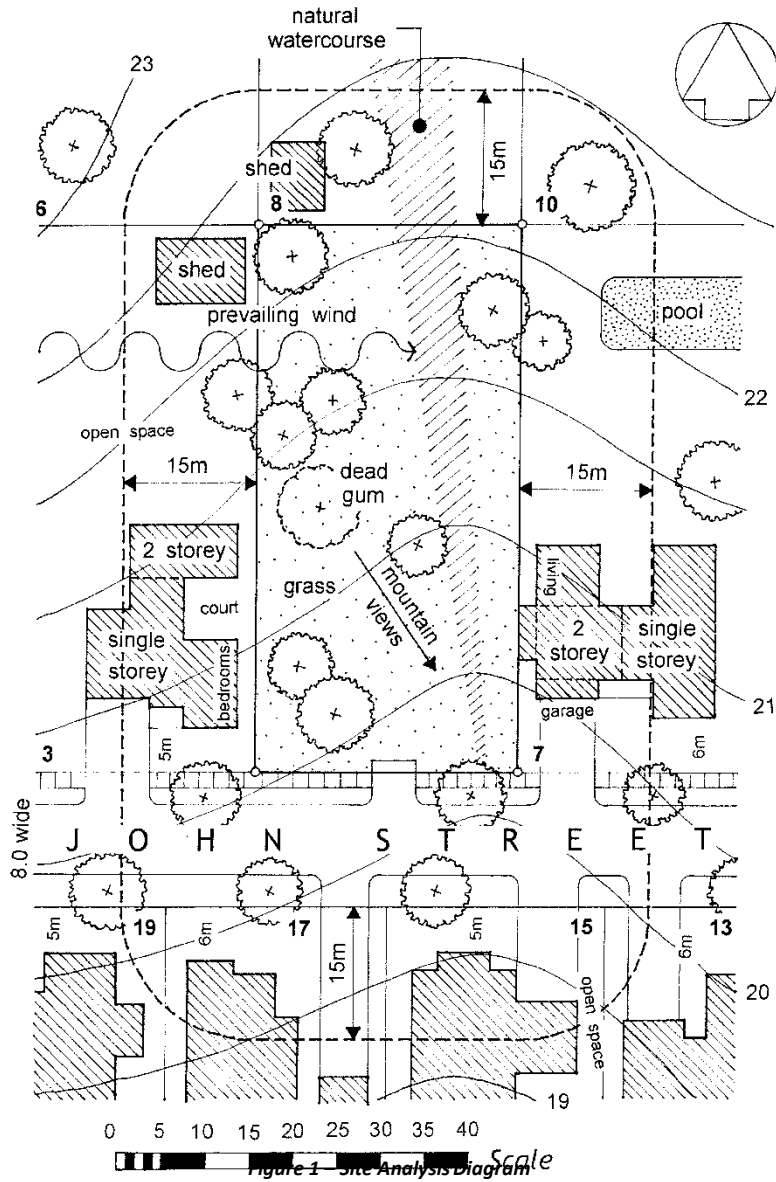


*Design Requirements:***Site Analysis**

- a) A detailed site analysis shall be submitted with a development application for all residential development with the **exception of a single detached dwelling**. A typical Site analysis Diagram is provided as Figure 1. (Note: this Plan does not show the proposed development).
- b) The site analysis shall show, in plan form (with detailed notations), at least but not limited to the following elements:
- Identification of the lot(s).
  - North point (solar north, not magnetic north).
  - Site levels (contours or spot heights – preferably to Australian Height Datum).
  - Easements eg. stormwater drainage, electricity, access.
  - Existing buildings and other improvements on the land.
  - Existing vegetation on the land.
  - The location of any services on the land – eg. Water service, sewer line, stormwater lines, electricity lines etc.
  - Width of footway and location of any existing footpath, driveways and driveway laybacks in the kerb.
  - Location of kerb and gutter in the street and any kerb inlet pits.
  - Location of any poles, pits, trees etc in the footway verge.
  - View corridors.
  - Building setbacks.
  - Fencing – location, height, material and condition.
  - Ground levels of adjoining lots near the common property boundary.
  - Location and general description of buildings on adjoining lots and the position and height of window and door openings in proximity to the development site.
  - Identification of the use of open space areas on the adjoining lots.
  - Photographs of the site are a helpful tool.

*Note: It is recommended that the site analysis plan be prepared by a Registered Surveyor or other suitably qualified or competent person.*

- c) Special consideration and unique building design will be required for development on land where the slope is in excess of 20% (1 vertical in 5 horizontal).



## Context Analysis

- d) A 'Context Analysis' will be required for all residential development **with the exception of a single detached dwelling**. The context analysis shall describe the character of existing development in the vicinity of the site in order to understand the streetscape and pattern/form of development. This may be provided in the form of scaled sketches of streetscape elevations or photo compilation. Site context is predominantly a function of:
- Proximity of the site to urban support facilities such as schools, shopping centres, transport nodes.
  - The height, size, bulk and scale of development.
  - The architectural treatment or style of buildings eg. Victorian, Federation, Art Deco, Contemporary etc.
  - Roof proportion relative to external walls and whether the roof contains dormers, gables or other roof features such as chimneys etc.
  - Predominant building materials and colours.
  - The proportioning and position of door and window openings relative to wall area.
  - The spaces which exist between buildings.
  - The predominant street setbacks.
  - The type, scale and location of landscape elements.
  - Fencing locations, height and materials and the presence of retaining walls.
  - Treatment of footpath areas in front of a development – paving, tree planting etc.
- e) In considering site selection for residential development that will contain more than two dwellings, the site context analysis shall demonstrate that the subject land is within convenient walking distance (not exceeding 400 metres) of the following facilities:
- Land zoned B1 Neighbourhood Centre, B2 Local Centre, B3 Commercial Core or B4 Mixed Use under the Maitland LEP 2011; or
  - A school catering for primary and/or secondary students; or
  - A key transport node – railway station.
- f) The design plans and the Statement of Environmental Effects shall demonstrate that the 'site analysis plan' and the 'site context analysis' have been taken into account in producing a design solution which mitigates against potential negative impacts and integrates appropriately with the streetscape.



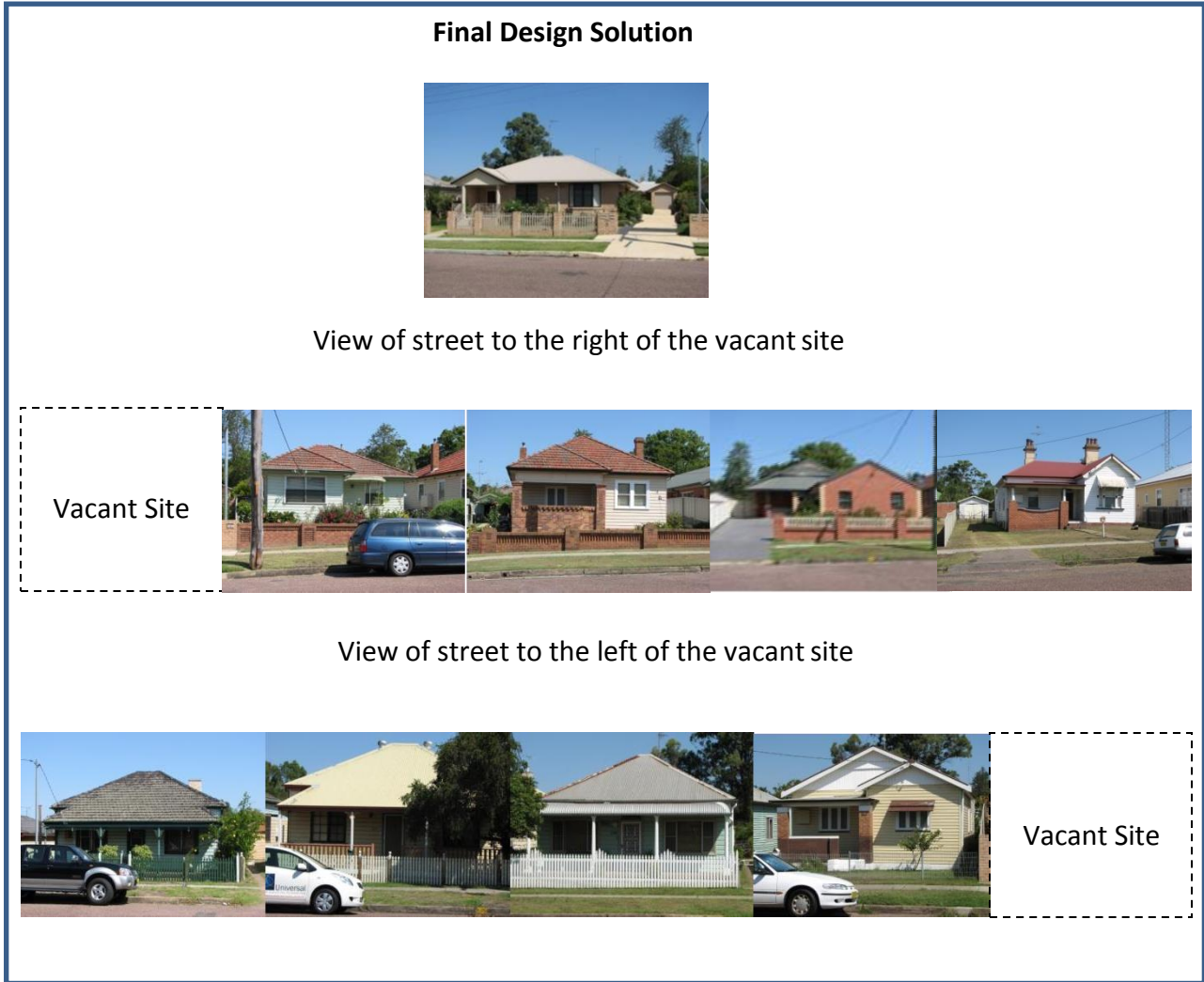


Figure 2 - Site Context Analysis

The 'site context analysis' examines the context of the proposed development site within the street. The scale, form, function and colours/materials used in the existing buildings are considered along with the size of spaces between buildings and both soft and hard landscape elements. The final development solution shown above is not the same as adjoining development but is consistent with the scale and pattern of existing development and achieves a more integrated streetscape.

### 3. DEVELOPMENT INCORPORATING EXISTING DWELLINGS

#### *Objectives:*

- a) To ensure that, where possible, existing buildings are retained and used for ongoing residential use.
- b) To ensure that buildings and streetscapes of conservation significance are retained and incorporated into new development where possible.
- c) To ensure that existing dwellings are provided a high standard of amenity and facilities when being incorporated into a residential redevelopment project.
- d) To encourage sustainable building practices and resource efficiency by minimising the amount of material being diverted to landfill as a result of building demolition.

#### *Design Requirements:*

- e) Where an existing dwelling is to be retained and incorporated into a residential redevelopment project, this dwelling is to be treated as if it were a new dwelling in the same redevelopment project and should meet all performance criteria and design controls specified in this chapter.
- f) Where it is not possible for an existing dwelling to achieve compliance with all aspects of the chapter Council may, after consideration of a detailed submission lodged with the development application outlining grounds/justification for non-compliance, agree to vary one or more of the chapter requirements. In assessing any variation, the Council shall have regard to:
  - The significance of the existing dwelling to be retained and/or the level of contribution it makes to the streetscape or character of the area;
  - Any alternative design solutions that may be proposed to demonstrate general compliance with the objectives applying to the relevant section of the chapter.
- g) Special provisions relating to heritage items or heritage conservation areas are contained in the Maitland LEP 2011 and the relevant chapters in this DCP must be taken into account where relevant.

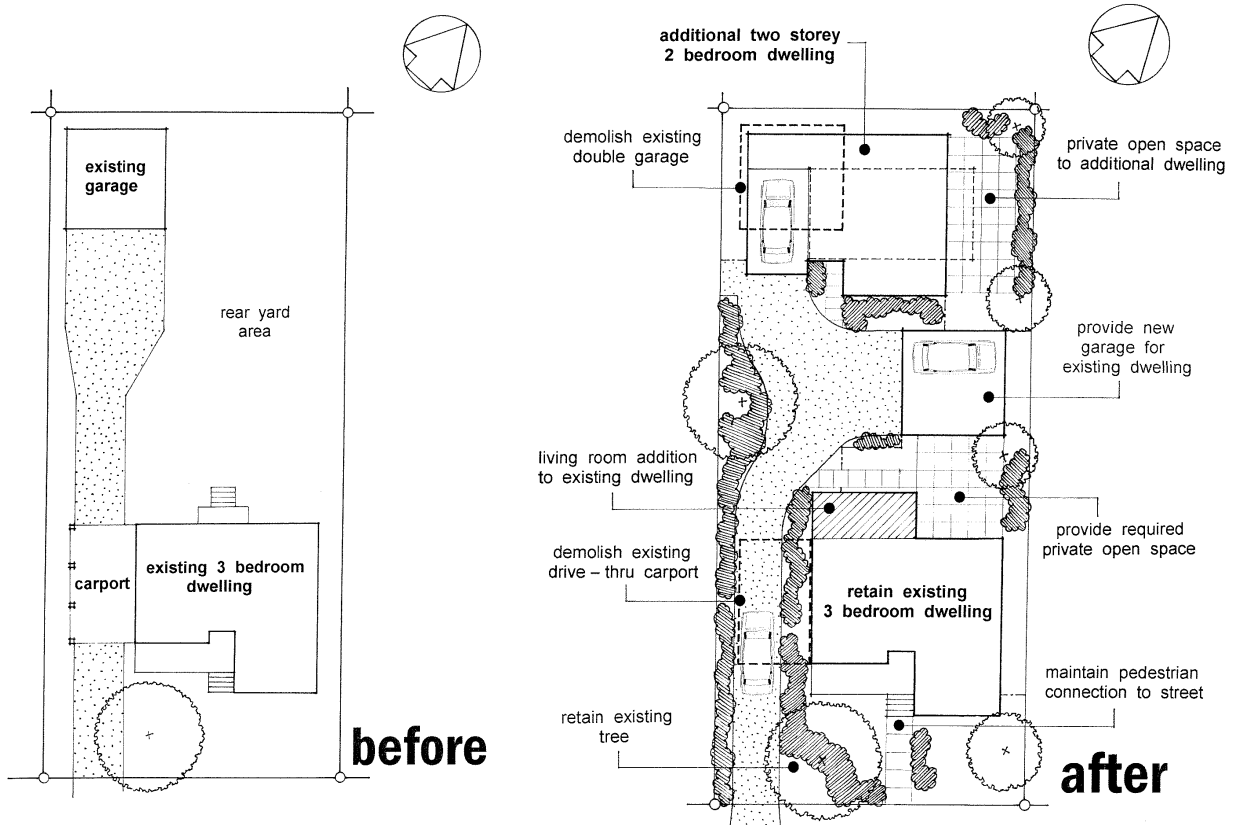


Figure 3

Where an existing dwelling is being retained as part of a site redevelopment then the existing dwelling shall be required to meet the design requirements of this Chapter.



## 4. BULK EARTHWORKS AND RETAINING WALLS

### *Objectives:*

- a) To ensure that development responds sensitively to the topography of the land.
- b) To restrict and control excessive earthworks in order to preserve, as much as practicable, the existing topography and character of the neighbourhood affected by the proposed development.
- c) To ensure that the building design is appropriate for site conditions with consideration given to the stability and privacy of the adjoining properties, solar access, amenity and bulk, height and scale at the boundary interface.
- d) To minimise the effect of disturbance on any land and ensure that dangerous/unstable excavations are avoided, or where necessary, are properly retained.
- e) To reduce the potential for the siltation of waterways and erosion of land disturbed by the development.
- f) To ensure that the site is appropriately rehabilitated as an integral part of the development.
- g) To preserve topsoil.
- h) To ensure that adequate provision is made for drainage in relation to cut and fill practices.

### *Design Requirements:*

- i) A 'bulk earthworks plan (BEP)' shall be submitted with the development application for all forms of residential development showing the levels (relative to a datum benchmark at the site) of all finished ground levels for both the building platform and those areas of the site external to the building platform. The plan should also specify and show the extent and depth of cut/fill, and location of all retaining walls and/or battered slopes. The BEP shall also show existing ground levels adjoining the perimeter boundaries of the land (refer to Figure 4 for sample BEP).
- j) Where a retaining wall (for the purposes of retaining fill) is proposed either on or in close proximity to a boundary then the maximum extent of fill shall be 600mm (refer to Figures E, F and G).

- k) Where a retaining wall (for the purposes of retaining cut) is proposed either on or in close proximity to a boundary then the maximum extent of cut shall be 900mm (refer to Figures E, F and G).
- l) Retaining walls shall be designed and certified as structurally adequate by the Accredited Certifier as part of a Construction Certificate:
- where the wall has a height greater than 1.0 m;
  - where retaining is achieved by a series of separate walls located in close proximity to one another (refer Figures D and E)
- m) Elevated flooring (eg bearers and joist construction), deepened concrete edge beams, infill slabs, split level construction and the like shall be used where necessary to reduce the extent of earthworks required to achieve the maximum cut/fill levels prescribed under the plan (refer to Figure H).
- n) Retaining walls shall be constructed of materials which are prescribed by a manufacturer, Australian Standard or structural engineer as being 'fit for purpose'.
- o) Adequate drainage comprising free draining gravel and subsoil agricultural drains shall be installed to the rear of retaining walls to relieve the hydrostatic pressure at the base of the wall.
- p) Stormwater or surface water runoff shall not be redirected or concentrated onto adjoining properties so as to cause a nuisance. Adequate drainage is to be provided to divert water away from batters. This requirement shall be an integral part of the site stormwater management plan addressed in Section 18 of the Plan.
- q) Cut and fill batters should not exceed a slope of 3:1 (horizontal to vertical ratio) to the natural ground level unless the foundation strata, type of material or compaction permits otherwise and Council is satisfied as to the stability of the site. All batters must be provided with both short term and long term stabilisation to prevent soil erosion.
- r) Excavations in excess of those specified for retaining walls may be permitted within the confines of the building to allow for basements, garages etc providing the excavations are adequately retained and drained in accordance with engineering details.
- s) All excavations shall be protected in accordance with the requirements of the NSW WorkCover Authority.
- t) Where a property is burdened by stormwater easements containing pipes care should be taken to avoid pipe damage. In cutting situations it may be

necessary to lower existing pipes within the easement. In filling, pits may require extending to the new surface level.

**Note:** All drainage works associated with retaining walls must be located within property boundaries.

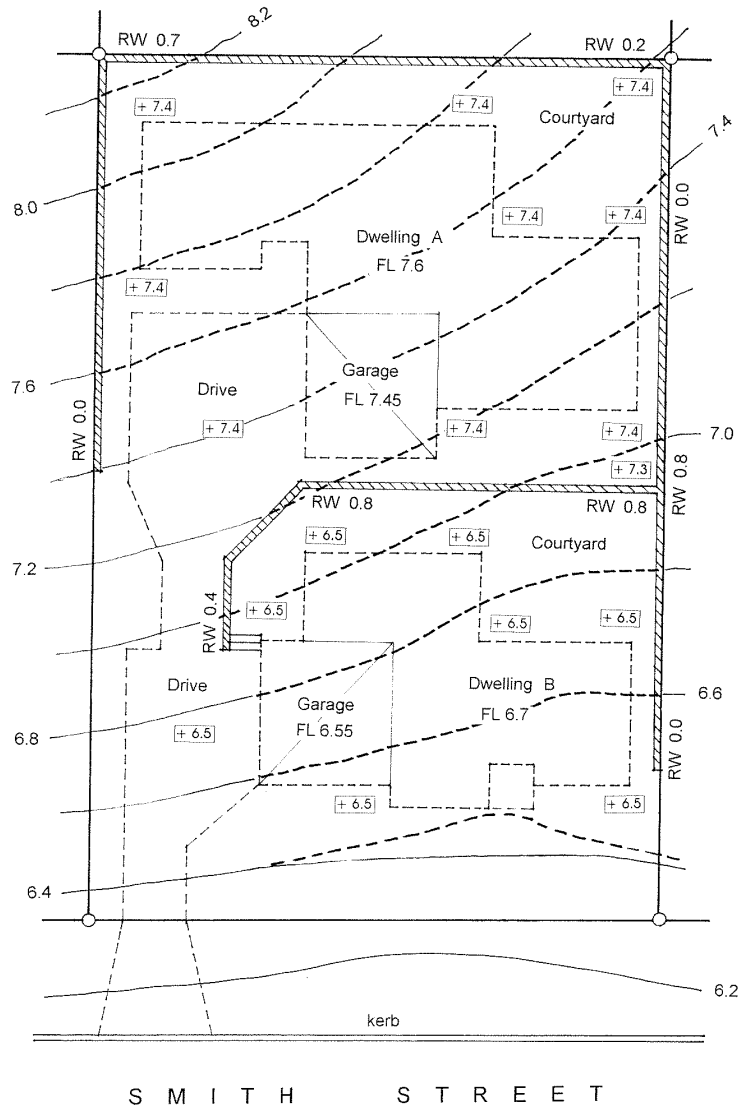
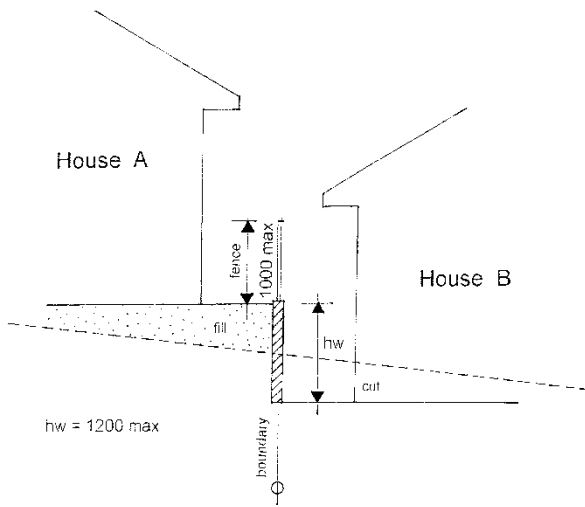


Figure 4

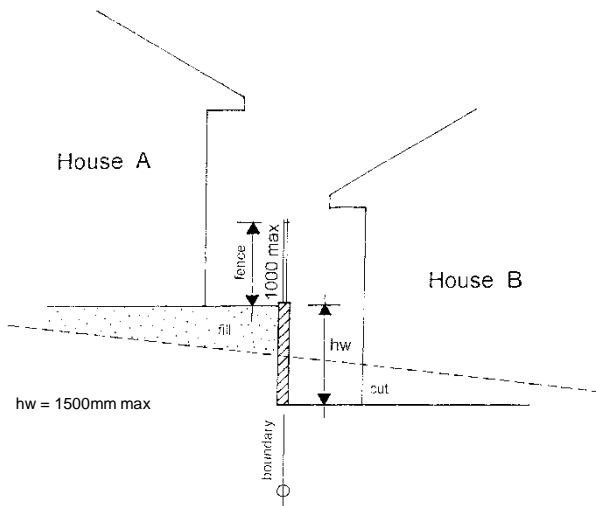




**Figure 5 – Single Retaining Wall**

Better outcomes occur where there is co-operation between landowners resulting in a single retaining wall.

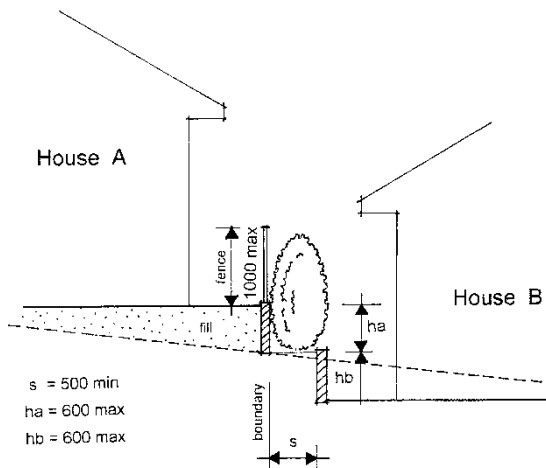
Note: Engineering certification is required where hw is greater than 1.0 metre.



**Figure 6 – Retaining Wall (where built at separate times)**

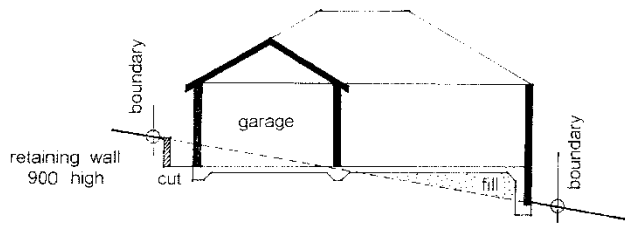
Where co-operation between landowners to achieve a single retaining wall does not occur, the retaining of cut and fill will need to be achieved by two separate structures.

Note: Secondary retaining wall must take into account the structural integrity of any existing structure.



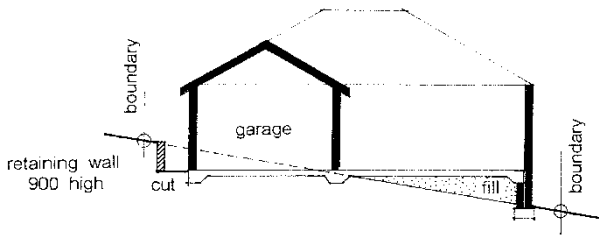
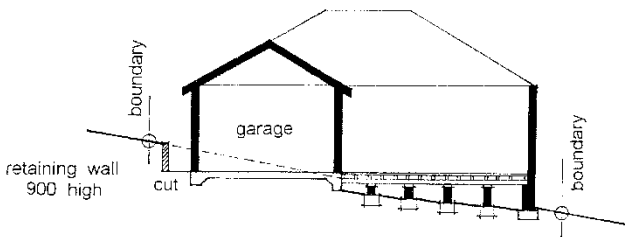
**Figure 7 – Stepped Retaining Wall**

Note: Option to ensure stability of an existing wall structure.

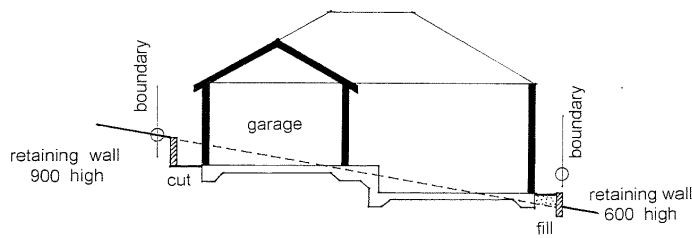


**1** Slab on ground with deepened edge beam

**2** Slab on ground and bearers / joists



**3** slab on ground and infill slab



**4** Split level construction

Figure 8

Alternative Approaches to Construction on Sloping Sites

## 5. STREET BUILDING SETBACKS

### *Objectives:*

- a) To provide setbacks that complement the streetscape, allow flexibility in the siting of buildings and allow for landscape settings and open space requirements.
- b) To ensure that new development establishes appropriate and attractive streetscapes which reinforce the function of the street and is sensitive to the landscape and environmental conditions of the locality.

### *Design Requirements:*

- c) The minimum building line to the principal street frontage of an allotment located in an urban residential zone is 5.0 metres (refer Figure 9 - Example 3).
- d) Where an allotment is located on a corner in an urban residential zone and a single dwelling is proposed the minimum building line setback is 5.0 metres to the principal street frontage and 3.0 metres to the secondary street frontage (refer Figure 9 - Example 1).
- e) Where the shape of the allotment located within an urban residential zone is irregular due to the geometry of the street boundary the building line shall be a minimum of 4.0 metres but averaging 5.0 metres over the length of the building addressing those street boundaries (refer Figure 9 - Example 4).
- f) For corner lots, within an urban residential zone, where the development involves more than one dwelling, the dwelling(s) fronting the secondary street shall have a setback of not less than 4.0 metres (refer Figure 9 - Examples 1 and 2).
- g) No garage or carport within an urban residential zone shall be located closer than 6.0 metres to the street boundary at the principal frontage and no closer than 5.5 metres to the street at a secondary frontage (refer Figure 9).
- h) Older residential areas or heritage conservation areas may comprise buildings with setbacks greater than or less than 5.0 metres. Where infill development is proposed in these areas the building line for the new development shall have regard to the setbacks of existing buildings adjacent to the site. Designers should consult Part E.2: Heritage Conservation Areas to determine setbacks in heritage conservation areas.
- i) Building line setbacks for other zones are detailed in Table 1.



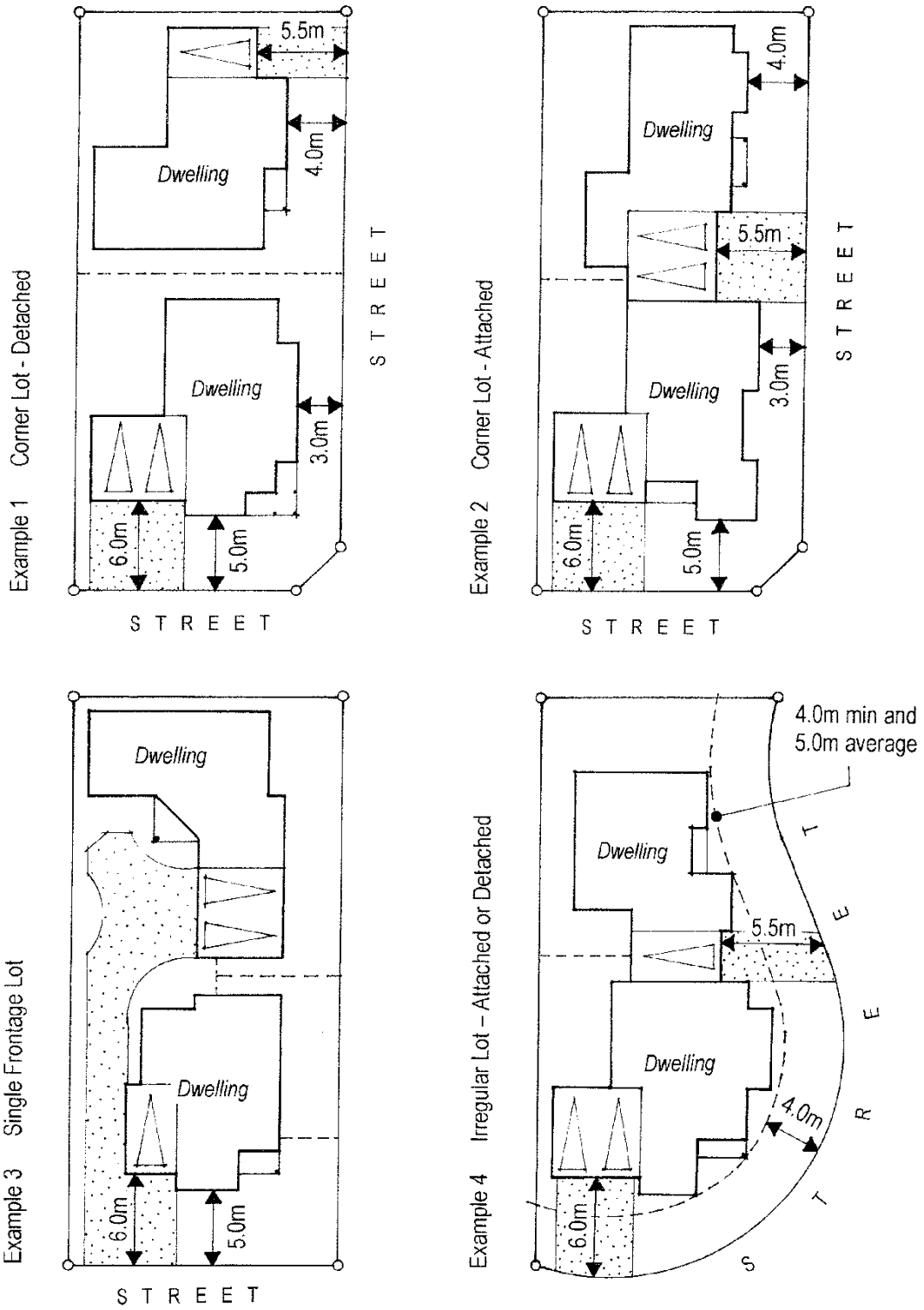


Figure 9 – Street Building Line Setbacks – Residential Areas

<b>Zone</b>	<b>Principal Frontage (metres)</b>	<b>Side Street for corner lots (metres)</b>
RU1 Primary Production	20	15
RU2 Rural Landscape	20	15
R5 Large Lot Residential	20	10
E4 Environmental Living	20	10
R5 Large Lot Residential (Dunmore Estate, Largs)	10	6

*Table 1 –Building Line Setbacks in Zones Other than Urban Residential Zones*

**Note:** Street setbacks in other zones shall be determined on merit having regard to the pattern of setbacks common to the area surrounding the site provided such setbacks are in accordance with the provisions of the Building Code of Australia.

**Definitions:**

*Minimum building line* means that distance between the street boundary and the nearest structural element of the building including verandahs, porches and the like but excluding any external steps and ramps.

*Principal street frontage* means that elevation of a building which contains the main pedestrian access point to the dwelling.

## 6. SIDE AND REAR SETBACKS

### *Objectives:*

- a) To allow flexibility in the siting of buildings and the provision of side and rear setbacks.
- b) To allow adequate building setbacks for landscaping, privacy, natural light and ventilation between buildings.

### *Design Principles:*

- c) Setbacks should be progressively increased as wall heights increase to reduce bulk and overbearing.
- d) Building siting and height should relate to landform with minimal cut and fill.
- e) Building form should take into account, where possible, the sharing of views. This could be achieved by split level designs which step buildings down the site corresponding to the site's topography or by reducing the width, depth or height of upper floors and roof structures to provide view corridors for development on adjoining land.
- f) Building to the boundary should occur only where it does not significantly compromise the privacy and solar access of neighbouring dwellings and private open space.
- g) Buildings should meet the requirements of the Building Code of Australia in relation to fire protection.

### *Design Requirements:*

- h) Minimum side and rear setbacks for residential buildings in urban zones shall be in accordance with Figure 10 and described as follows:
  - 1.0m for walls up to 3.0m in height (to underside of eaves);
  - 1.0m plus 0.3m for every metre of wall height over 3.0m and less than 7.2m;
  - For that part of a wall over 7.2m in height, the minimum setback should be increased by 1.0m for every metre of height over 7.2m.
- i) Walls of buildings within urban zones may be built to the side and/or rear boundaries only where:



- The maximum wall height is 3.0m and there will be no significant impact on privacy, use of private open space and solar access to adjoining properties;
  - There are no openings unless such openings comply with the fire resistance requirements of the Building Code of Australia and are filled with translucent or obscured glazing; and
  - The length of the wall built to the boundary does not exceed 50 per cent of the total length of the wall comprising that elevation (refer Figure 11).
- j) Required side and rear setbacks for rural zones are detailed in Table 2.

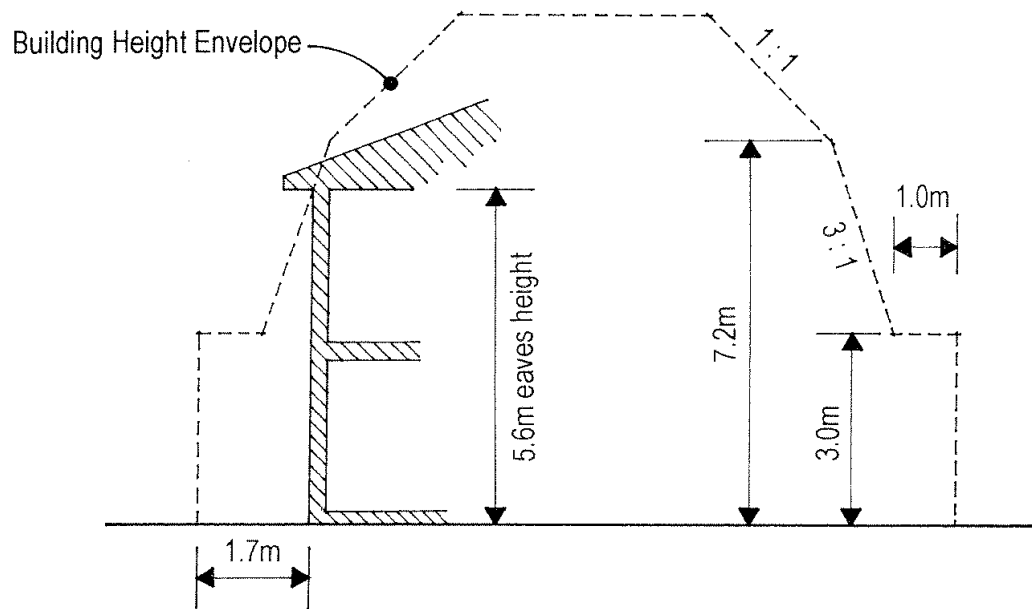


Figure 10 – Envelope for Calculation of Side and Rear Boundary Setbacks

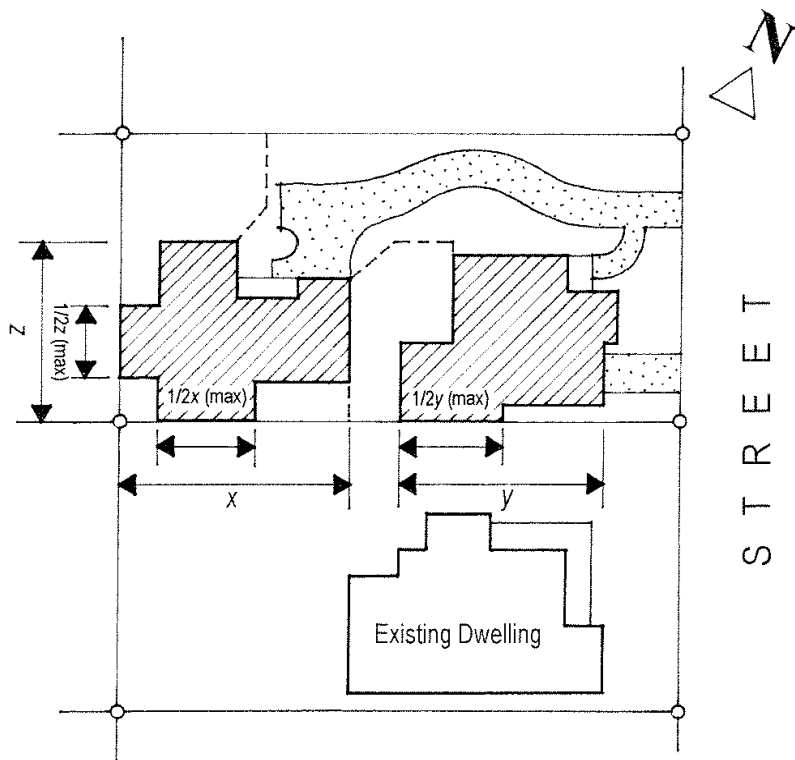


Figure 11 – Required Criteria for Building to a Boundary

<b>Zone</b>	<b>Side Boundary (metres)</b>	<b>Rear Boundary (metres)</b>
RU1 Primary Production	10	10
RU2 Rural Landscape	10	10
R5 Large Lot Residential	6	6
E4 Environmental Living	6	6
R5 Large Lot Residential (Dunmore Estate, Largs)	4	4

Table 2 – Side and Rear Building Setbacks – Rural Zones

**Note:** Some 'site specific' chapters may require greater or lesser setbacks to side and rear boundaries for reasons relating to bushfire management, preservation of vegetation, visual or privacy impacts etc. In such circumstances those setbacks required in the site specific chapter will apply in lieu of those detailed in this table.

## 7. SITE COVERAGE AND UNBUILT AREAS

### *Objectives:*

- a) To promote on-site stormwater infiltration by restricting site coverage of buildings and hard surfaces.
- b) To maximise opportunities for landscaping of the site which incorporate larger scale plantings consistent with reducing the visual impact of hard building finishes and promoting improved amenity within the site and enhanced streetscapes .

### *Design Principles:*

- c) To ensure that development maximises permeable surfaces and maintains a balance between the 'built' and 'unbuilt' areas.
- d) To ensure that development provides for unbuilt areas that are of suitable size, dimension and slope that will:
  - i. Provide adequate solar access;
  - ii. Assist in retaining existing vegetation;
  - iii. Enhance the existing streetscape;
  - iv. Enhance privacy and views between housing, other buildings and the street;
  - v. Accommodate private open space requirements that suit the anticipated needs of occupants;
  - vi. Actively facilitate on-site stormwater infiltration;
  - vii. Provide space for service functions including clothes drying.

### *Design Requirements:*

- e) Site coverage shall satisfy the requirements detailed in Table 3 - Site Coverage and Unbuilt Areas. All development application plans for residential development shall provide a detailed 'percentage site coverage' calculation having regard to the requirements of Table 3.
- f) Development shall have site coverage appropriate for the site's capability and form of development and site coverage shall be consistent with the desired future density for the locality.



Housing Type	Maximum Site Coverage Ground Floor (%) (See Note 1)	Minimum Unbuilt Area (%) (See Note 2)
Dwelling House	60	40
Small Lot Housing	60	40
Dual Occupancy (2 units)	60	40
Multi Dwelling Housing (3 or more dwellings)	70	30
Residential Flat Buildings	70	30

Table 3 – Site Coverage and Unbuilt Areas

**Notes:**

1. 'Built Area' includes garages, driveways, pathways and any area under a roof.
2. 'Unbuilt Area' includes ground level Private Open Space (POS) and Communal Open Space (COS).

**Definition**

Maximum site coverage means the maximum allowable area of a site able to be 'hard' developed expressed as a percentage of total site area.

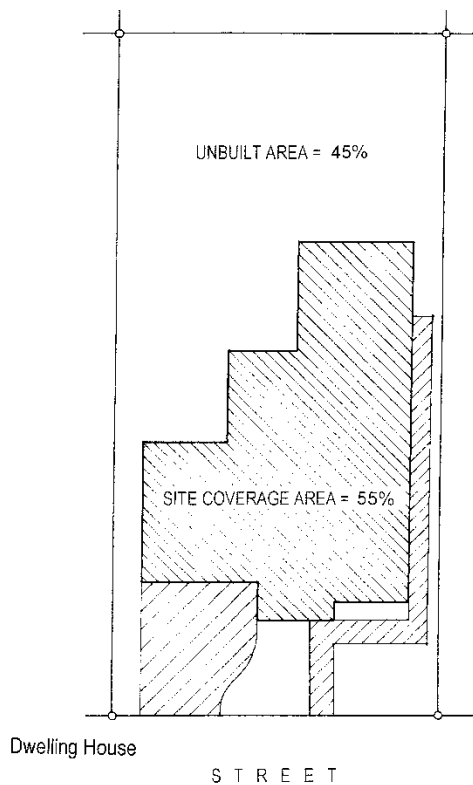


Figure 12 – Site Coverage and Unbuilt Areas for Single Detached Dwellings

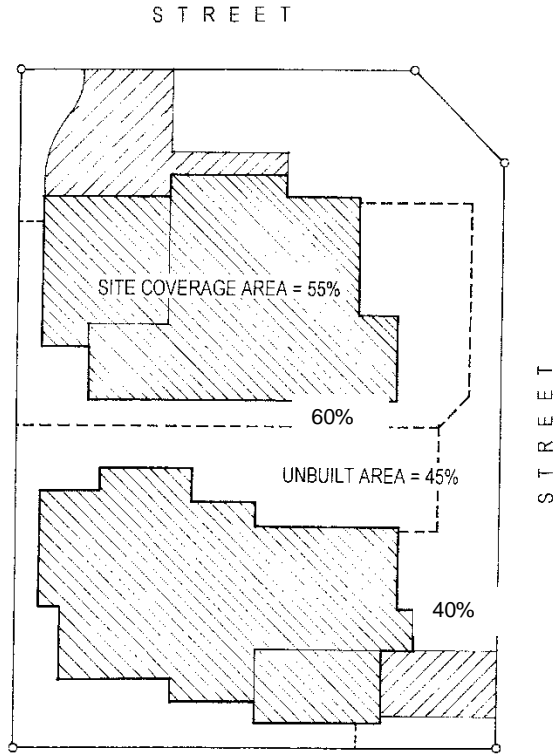


Figure 13 – Site Coverage and Unbuilt Areas for Dual Occupancy

Dual Occupancy

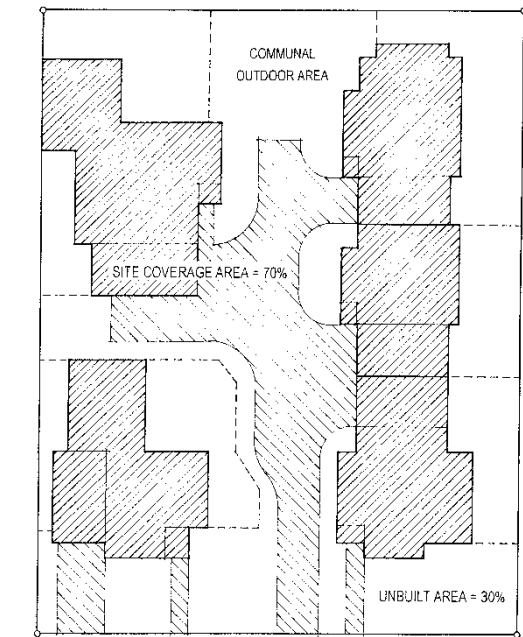


Figure 14 – Site Coverage and Unbuilt Areas for Multi-Dwelling Housing

Multiple Dwelling Housing



## 8. BUILDING HEIGHT, BULK AND SCALE

### *Objectives:*

- a) To ensure that the height, scale, and length of new development is not excessive and relates well to the local context and overall site constraints.
- b) To ensure that the amenity of surrounding properties is properly considered.
- c) To minimise site disturbance and cut and fill.

### *Design Principles:*

- d) Developments should be sited and be of a height and scale that cause no significant loss of amenity to adjacent dwellings and land. This can be achieved through:
  - i. Building siting and height that are related to landform with minimal cut and fill;
  - ii. Building forms that enable a sharing of views with neighbours;
  - iii. Building bulk that is distributed to reduce impact on neighbours and on the public street;
  - iv. Building height similar to, but not necessarily the same as, those in the public streetscape;
  - v. Building to the side or rear boundary where privacy and solar access for neighbouring dwellings and their private open space is not compromised; and
  - vi. The walls of a building, when located on a boundary, should be limited in length and height to minimise the impact on neighbours.

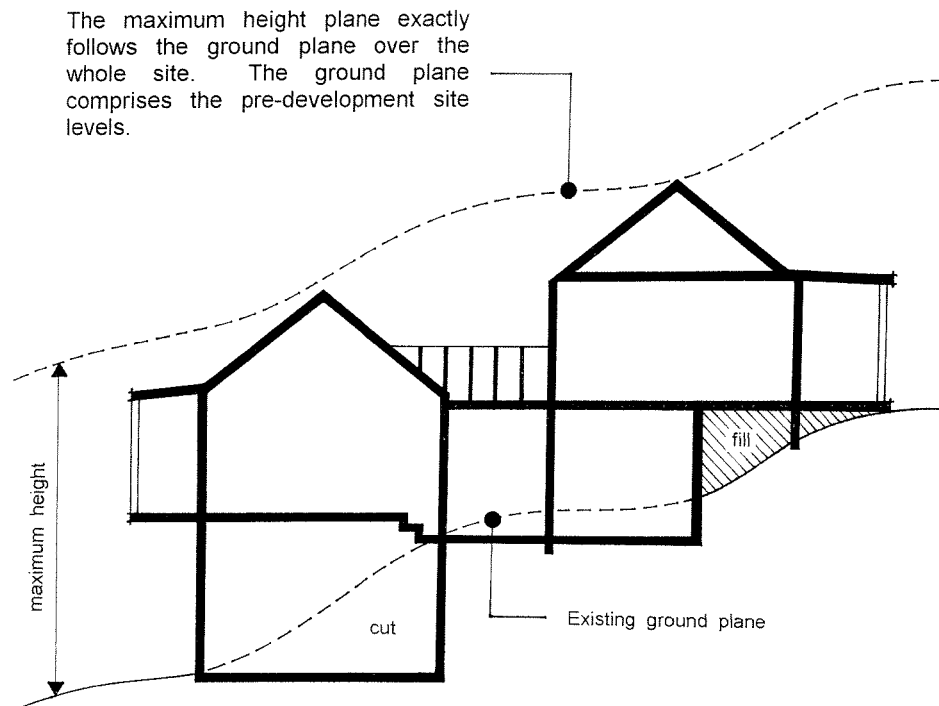
### *Design Controls:*

**Note:** Building height is defined in the Maitland LEP 2011. (refer to Figure 15).

- e) Maximum building height shall be in accordance with Table 4.
- f) Development application plans shall provide the following information to clearly communicate building heights:
  - A scaled and dimensioned site plan to show pre-development spot levels and/or contours of the site. This plan shall also show post-development spot levels of the site at the building corners and perimeter and shall also include finished levels for private open space, communal open space (where provided), driveways and pedestrian pathways and landscaped areas.



- Floor plans showing finished floor levels for ground floor internal living space, garages, and finished levels for upper floors and roof;
- Building elevations and sections to scale which are fully dimensioned and provide an accurate representation of height having regard to the levels identified on the site plan. Elevations and sections should show floor-to-ceiling heights as well as maximum height of roof element.



*Figure 15 – Building Height (where the land is not identified on the Height of Buildings Map in the Maitland LEP 2011)*

**Note:** Refer to Table 4 for maximum permissible heights within various residential development precincts).

<b>Housing Type</b>	<b>Zone</b>	<b>Max Height (metres)</b>
Dwelling	Rural and environmental zones	8
	Residential zones	8
	Business zones	8
	Industrial zones	8
Dual occupancy (2 dwellings)	R1 General Residential	8
	Business zones	11
Multi Dwelling Housing (3 or more dwellings)	R1 General Residential	8
	Business zones	11
Residential flat building	R1 General Residential	11
	Business zones	14

*Table 4 – Maximum Building Heights*

## 9. EXTERNAL APPEARANCE

### *Objectives:*

- a) To encourage the creation of attractive, well-designed residential development.
- b) To allow flexibility in design and use of materials while encouraging high architectural standards.
- c) To ensure good design which provides continuity of character between existing building forms, new development and surrounding landscape by using a selection and/or combination of characteristic elements and mass.
- d) To ensure that new residential development in Heritage Conservation Areas or on identified heritage sites is designed having regard to the heritage significance of the area or item and compliments the character of these buildings, places and streetscapes.

### *Design Principles:*

- e) The building design and the Statement of Environmental Effects that accompanies the proposal should demonstrate that the following matters have been addressed:
  - i. Consideration of the existing character, scale and massing of development in the immediate area, including the surrounding landscape.
  - ii. Architectural interest encouraged by:
  - iii. the use of finishes which are textured rather than bland;
  - iv. providing stepping of walls, pergolas, eaves, verandahs and blade walls etc. to establish articulation and create light and shadow to a building
  - v. the coordinated use of diverse materials and appropriate decorative treatments
  - vi. Consideration of both typical and rare fenestration (door and window patterns) and the relationship between glazed and solid wall areas.
  - vii. Consideration of traditional relationship of roof mass to wall ratio, roof pitch and design, length of unbroken ridgelines, parapets, eaves and roof water guttering detailing.
  - viii. The design shall provide a variety of experiences for the residents and passers by thorough attention to silhouette, pattern, texture and colour. The amount and length of unbroken roof ridgelines, unpunctuated facades, fencing and repetitive form should be minimised.



- ix. Design diversity should be achieved within and between developments by maximising the advantages of orientation, landforms, views and natural vegetation.
- x. Where a dwelling has an elevation to a principal street frontage then the design shall ensure that the building has its primary pedestrian entry point addressed to this street. This entry shall be reinforced by landscaping and, where appropriate, fencing to provide a clear entry statement.
- xi. The following features of existing areas should be considered and integrated into new development where possible:
  - Traditional street and lane patterns
  - Street setbacks
  - Groupings of buildings
  - Corner feature sites
  - Pedestrian walkways
  - Promenades, squares and courtyards
  - Characteristic kerb and gutter treatment
  - Pavement design, materials and finishes
- xii. Corner sites shall be developed such that the building(s) addresses both streets and has a well expressed side elevation that does not dominate the streetscape.
- xiii. Repetitive building designs should be avoided particularly in new residential subdivisions where there may be a number of sites being developed simultaneously. Repetitive street elevations generally do not achieve variety and interest in the streetscape – designs should ensure that key elements such as materials, colour schemes, fencing and driveway treatments, landscaping, window configurations and roof forms are distinct and give individuality to each development.
- xiv. That the relevant provisions in this DCP are taken into account where residential development is proposed within a Heritage Conservation Area or on a site of identified heritage significance under the Maitland Local Environmental Plan 2011.

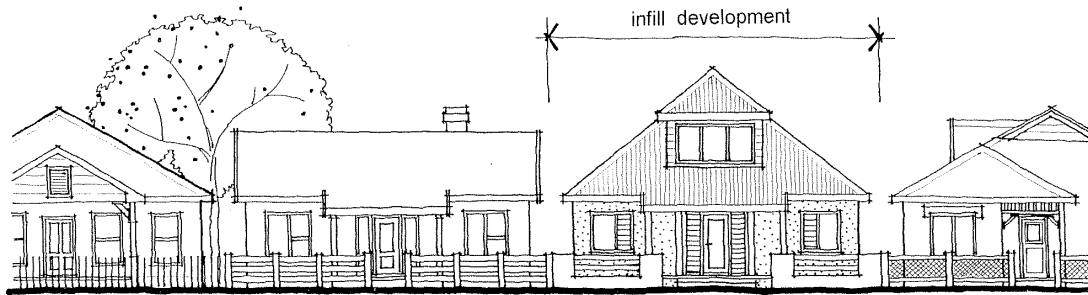
### Garaging

- f) The following matters shall be taken into consideration when designing a development to minimise the dominance of garaging particularly on the public streetscape and communal areas internal to the development site:
  - i. Car parking structures such as garages and carports shall be designed as an integral part of the development and must be compatible with the overall building design in terms of height, roof form, detail, materials and colours.
  - ii. Garages and carports, as a forward element in the design of a dwelling, are discouraged particularly where the dwelling and its

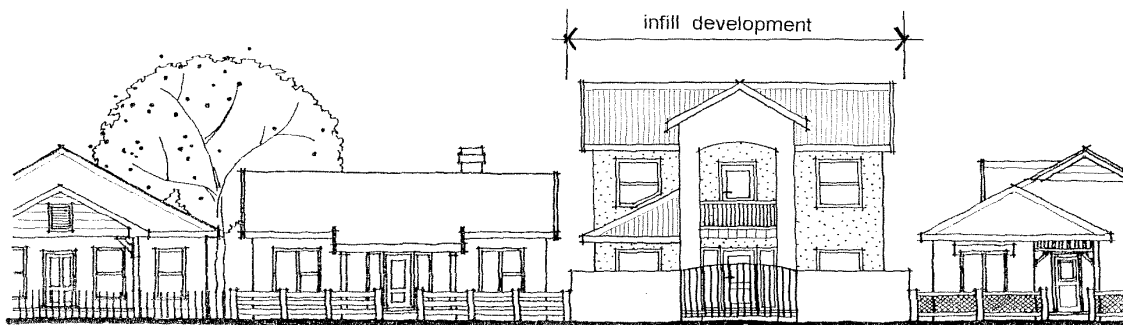
associated garage has a direct address and access to a street. Forward projecting garages and carports may be considered where it can be demonstrated that the design of the garage makes a positive contribution to both the street and the architectural quality of the building.

iii. The following treatments should be employed to reduce visual impact of garages and carports to a road frontage:

- Garages should be no greater in width than 50 per cent of the total width of the dwelling's frontage (eg. total width of dwelling's frontage is 15 metres therefore maximum width of garage doors to be no greater than 7.5 metres);
- Where possible, garages of attached or detached dwellings which have a direct address to the street should not be located side by side;
- Where the garages of adjoining units are located side-by-side they should have staggered setbacks of at least 1.0 metre (refer Figure 18);
- The placement of wide eaves, awnings, pergolas or first floor projecting balconies/rooms over the garages to create shadow lines and provide greater articulation to the building (refer Figure 18);
- The use of materials of contrasting colour and/or texture for the walls and doors of each garage to create visual interest and a sense of separate identity for each dwelling unit – note that dark colours will make a garage visually recessive;
- The use of an irregular driveway alignment;
- Minimising the width and area of driveways to reduce the volume and rate of stormwater run-off and to increase the area available for landscaping;
- The selection of paving materials with contrasting colour and/or texture;
- The use of carports in lieu of garages as these more transparent structures can effectively reduce the bulk and mass associated with multiple garages.



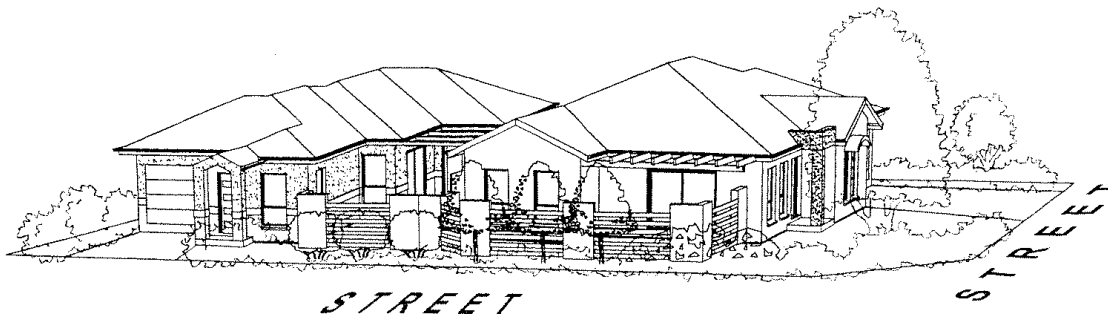
Scenario 1: Appropriate infill development integrates appropriately with streetscape by respecting the height, bulk and scale of existing development. Such development is not the same as existing development but consistent with existing development



Scenario 2: Inappropriate infill development where height, bulk and scale is inconsistent with the streetscape.

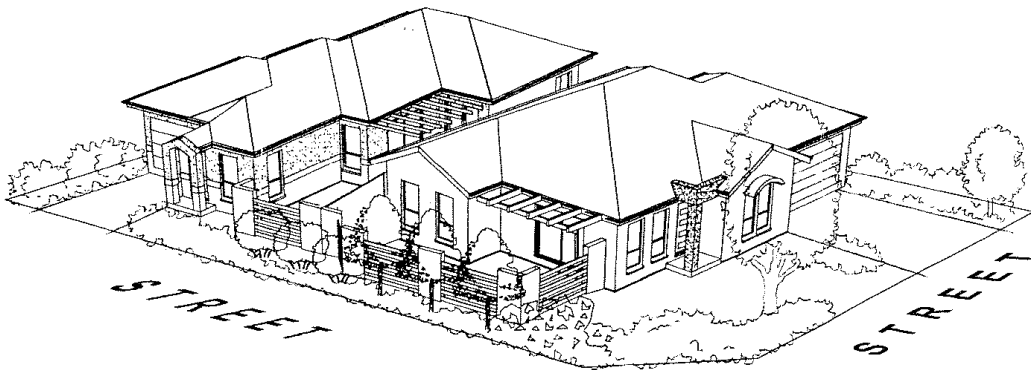
**Figure 16 – Infill Development shall be Sympathetic to Streetscape**



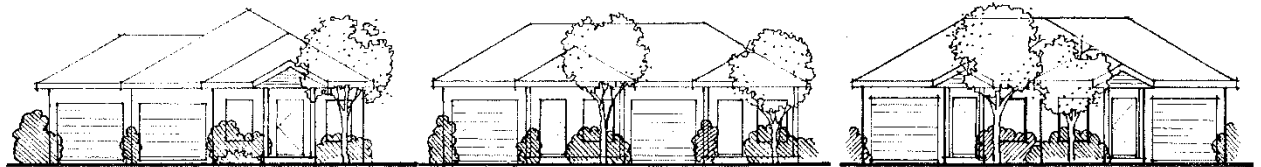
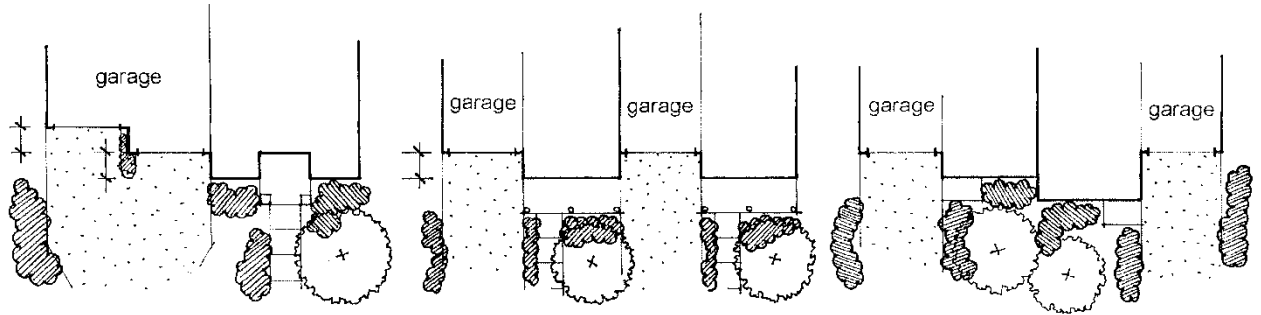


In this case:

- Detached dual occupancy dwellings are provided with their own separate street frontage;
- North facing courtyards address the street but are appropriate fenced and landscaped for both privacy and streetscape enhancement;
- Garages and driveways do not dominate the design.



**Figure 17 – Building Designs for Corner Allotments Should Demonstrate a Good Relationship to Both Street Frontages**



**Scenario 1 – Improving Relationship of Garages to Street**

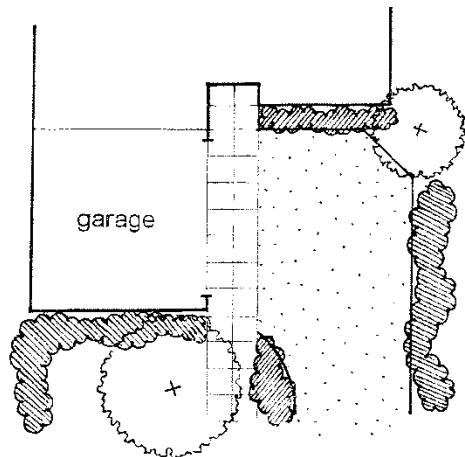
Preferred approach to double garaging. Double garages set back behind building line and staggered to reduce dominance and create architectural interest in roof line and wall articulation.

**Scenario 2 – Improving Relationship of Garages to Street**

Attached dual occupancy with garages set back from the building line and located between living area elements of the building.

**Scenario 3 – Improving Relationship of Garages to Street**

Attached dual occupancy with garages set back from the building line and located at outside edges of building.



**Scenario 4 – Garage Opening at 90° to Street**

Garage access at 90° to street. Note contrasting paving treatment and landscaping which reinforces pedestrian entry.

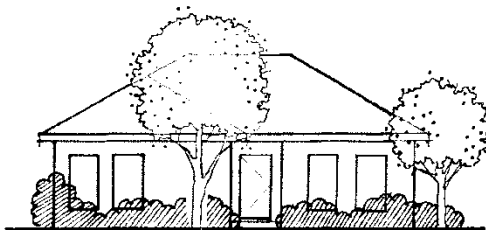
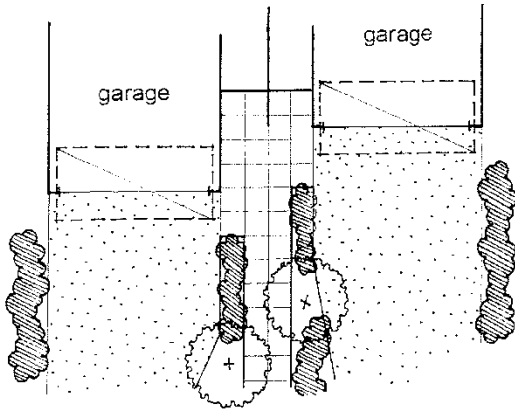


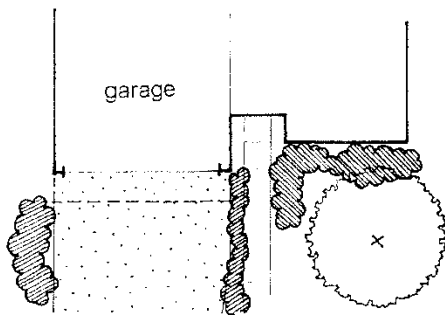
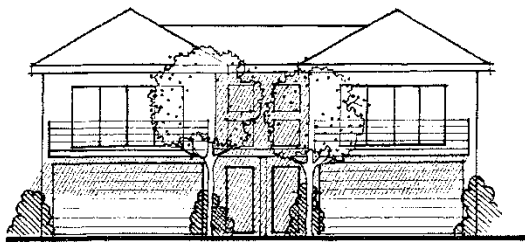
Figure 18 – Design Solutions – Reducing the Impact of Garages on the Streetscape



**Scenario 5 – Garages & Two Storey Construction**

Dominance of garages can be reduced by:

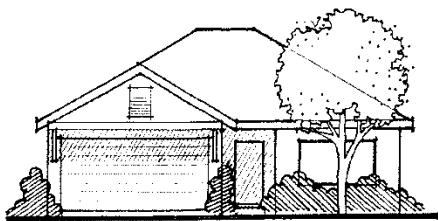
- First floor balconies (including cantilevered type) to protrude beyond garage openings to create strong shadow lines and help create visual depth;
- Stagger dwelling footprints to establish variation in street setbacks for each dwelling;
- Design interest shall be created using architectural treatments such as:
- Darker colours/texture for garage door and first floor walls to help assist in making garages visually recessive;
- Minimise extent of driveway pavement and maximise opportunities for landscaping incorporating plantings of suitable scale.
- Use contrasting paving to reinforce pedestrian entry and create interest



**Scenario 6 – Garage Forward**

Where garages are a forward element of the building, their visual impact shall be reduced by means such as the following:

- The width of the garage shall not exceed 50% of the width of the dwelling
- Design interest shall be created using architectural treatments such as:
  - Light-weight pergola or eave over garage opening to create shadow line
  - Darker colours/texture for garage door and wall to help assist in making building element visually recessive;
  - Minimise extent of driveway pavement and maximise opportunities for landscaping incorporating plantings of suitable scale.



**Figure 18 – Design Solutions – Reducing the Impact of Garages on the Streetscape (Continued)**



## 10. OPEN SPACE

The following open space requirements only apply to dual occupancy, multi dwelling housing and residential flat building developments.

### *Objectives:*

- a) To provide sufficient and accessible open space for the reasonable recreational needs of residents;
- b) To ensure that private open space meets requirements for privacy of the residents and adjoining properties, safety, access to outdoor activities and landscaping.
- c) To locate open space to take account of outlook, natural features of the site and neighbouring buildings or public open space.

### *Design Principles:*

- d) Open space shall be clearly defined to distinguish between communal and private open space.
- e) Open space areas shall be of usable dimensions to suit the projected requirements of the dwelling occupants, and to provide some outdoor recreational needs as well as providing space for service functions.
- f) Private open space shall be capable of serving as an extension of the function of the dwelling for relaxation, dining, entertainment, recreation and children's play, and where possible be directly accessed from a main living area of the dwelling.
- g) The open space shall be orientated to enable solar access to help achieve comfortable year round use.
- h) Private open space shall be screened for privacy.

### *Design Requirements:*

#### **Private Open Space (POS)**

- i) Ground Level POS:
  - i. All ground level private open space must comprise a 'principal area' of minimum dimensions in accordance with Figure 20.
  - ii. The minimum area of private open space for a ground level dwelling shall be in accordance with Figure 20.

- iii. The 'principal area' of POS shall form a direct extension to the internal living room or dining area of the dwelling (refer Figure 19).
  - iv. To be included in usable open space calculations, open space at ground level must have a minimum width in one direction of 3.0 metres.
  - v. The maximum cross-fall over the 'principal area' shall not exceed 2%.
  - vi. Areas of ground level private open space required for external drying facilities, garbage storage, roof water tanks etc shall not be included in the principal area of private open space. These ancillary uses shall be located where they are able to be screened from view of the street or other public place.
  - vii. The landscape plan for the development shall incorporate a detailed landscape design for each area of ground level POS.
  - viii. Ground level POS shall only be located forward of the building line (but no closer than 900mm to the principal street boundary) where the orientation of the POS is within the 'optimum' range illustrated by Figure 20.
  - ix. Where ground level POS is provided forward of the building line then privacy fencing shall be provided as detailed in Section 14.
- j) Above Ground Level POS:
- i. All above ground level private open space areas (eg balconies or terraces) shall contain a minimum area of 10 square metres and comprise a minimum dimension of 2.5 metres.
  - ii. The 'principal area' of POS shall form a direct extension to the internal living room or dining area of the dwelling unit.
  - iii. The orientation of above ground level POS and internal living rooms shall be within the 'optimum' and 'good' ranges illustrated by Figure 20.
  - iv. A communal external drying area shall be provided for all dwellings that do not have ground level POS. This communal drying area shall be located so as to receive adequate natural sunlight and breezes and shall be screened from view from public areas and communal open space areas. Drying space shall be provided at a rate of 15 lineal metres of clothes line per dwelling serviced.

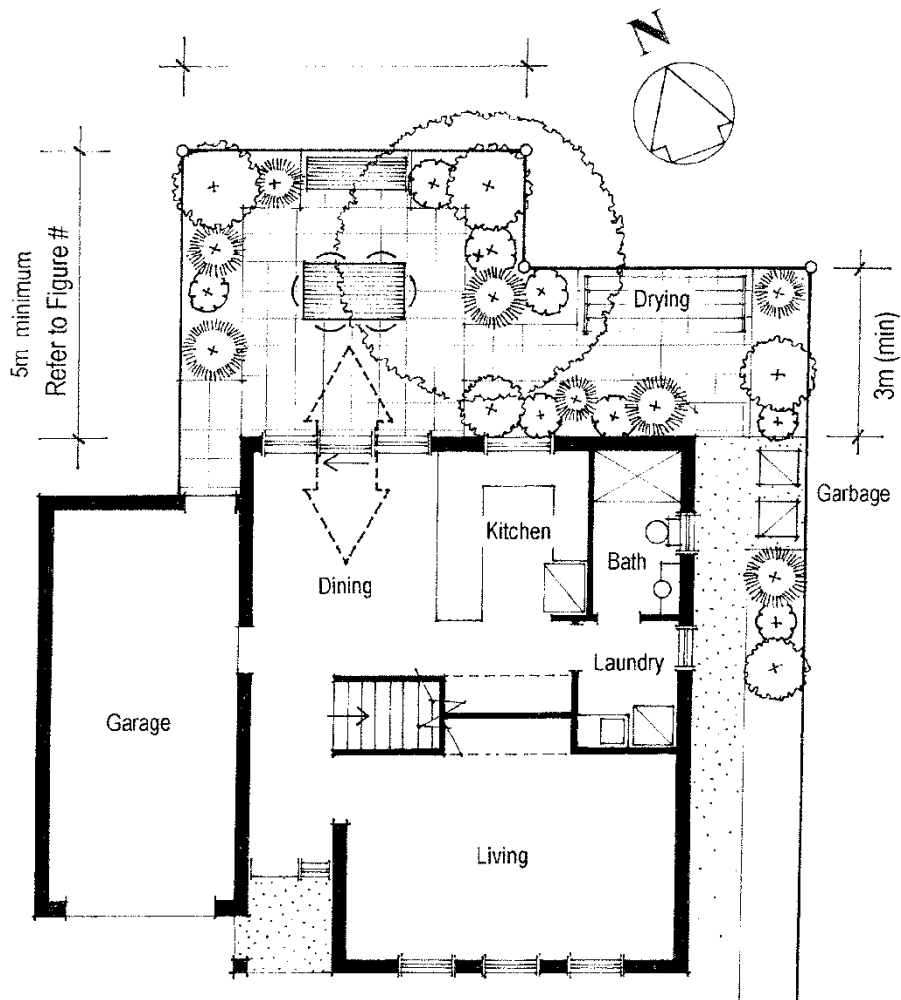
**Note:** Additional balconies etc are permitted but cannot be taken into account as POS unless meeting the minimum criteria specified above.

### Communal Open Space

- k) Ground level communal open space (COS) shall be provided within:
  - i. a multi dwelling housing development with fifteen (15) or more dwellings (eg. townhouses, villas etc).

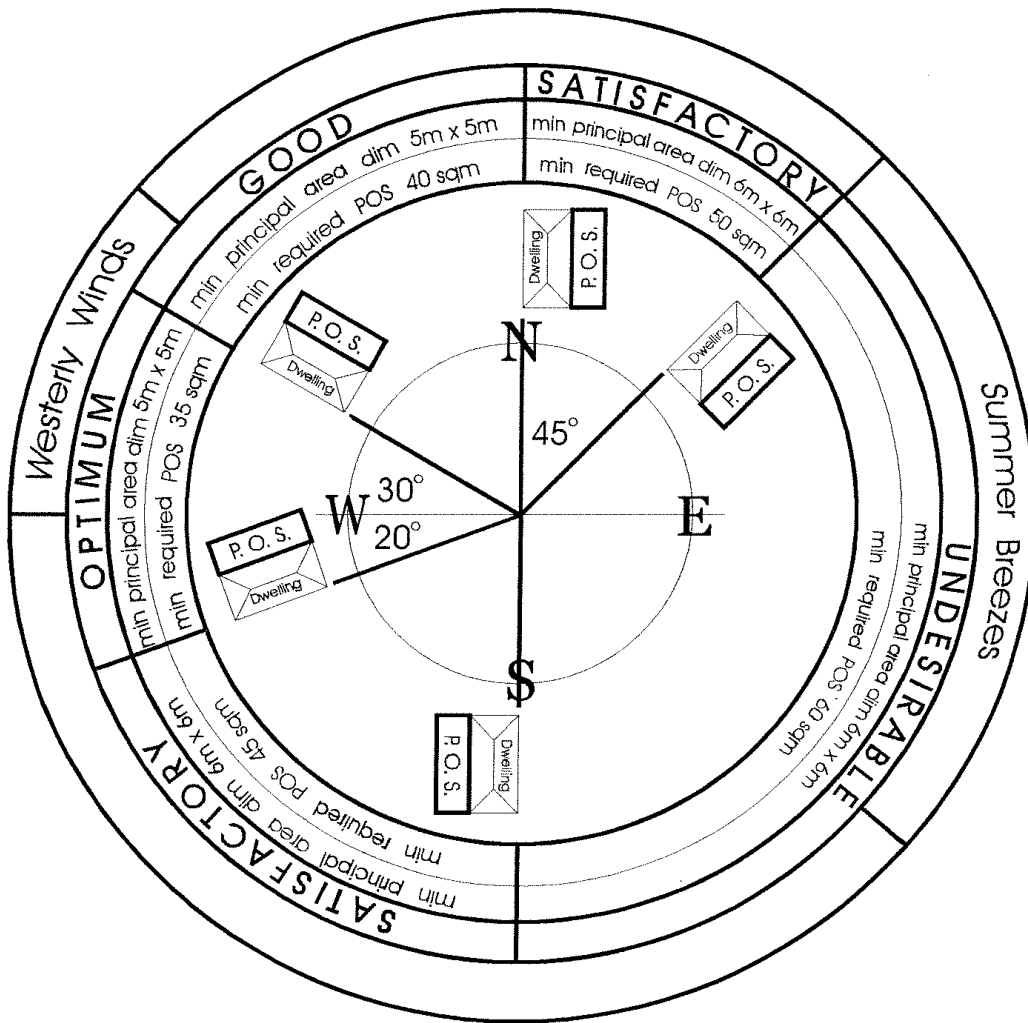
- ii. a residential flat building with twelve (12) or more dwellings (eg. unit, apartment, flat etc).
- l) Ground level COS shall:
- i. contain an area sufficient to meet the relaxation and recreation needs of the residents of the development and shall at minimum include barbeque facilities and shelter, tables, seating, children's play equipment, childproof fencing and associated landscaping.
  - ii. be centrally located to provide casual surveillance opportunities from surrounding units within the development.
  - iii. be an integral part of the design for the development and must be provided clear, safe pedestrian access to minimise conflict with vehicle manoeuvring areas.
  - iv. be provided with lighting sufficient to enable night time surveillance as a means of reducing vandalism and promoting the safety of residents. Care shall be taken in the selection of lighting and its location to minimise light intrusion to units within the development itself and also to adjoining properties.
  - v. take into consideration its interface with adjoining dwellings (eg. windows, rooms etc).
  - vi. contain facilities (eg: seating, play equipment etc) designed to meet the relevant Australian Standards.





- The private open space (POS) area serves as an extension to the internal living area of the dwelling
- POS serves as an 'outdoor room' providing opportunities for outdoor dining and relaxation
- Minimum dimensions and area of the POS are to be in accordance with Figure 20
- Maximum cross-fall for principal area of POS not to exceed 2%
- POS is orientated to maximise solar access
- Landscaping softens fencing treatments and also screens drying and garbage storage areas

**Figure 19 – Key Design Principles for Outdoor Private Open Space**



**Note:** The amount of ground level private open space required and the minimum principal area dimensions are based on the orientation of the open space and its relationship to the internal living areas of the dwelling

Figure 20 – Specifications for Ground Level Private Open Space

## 11. SITES HAVING A BOUNDARY TO A LANEWAY

Throughout the Maitland City area there are a number of older subdivisions that were designed to provide a rear lane access to residential lots. These lanes were intended as service lanes primarily for the collection of night soil. These lanes are typically narrow (usually around 6.0 metres wide) and are not appropriate as a principal street address for new residential development.

Typically these lots have been developed with a small cottage to the primary street frontage in combination with a detached garage(s) having separate frontage to the laneway at the rear. New development should not lead to significantly increased traffic movements on the laneway and should ensure that any new dwelling(s) are not orientated towards the laneway as a primary address.

This Section provides specific additional controls for the development of those allotments in established areas, (as opposed to Greenfield residential subdivisions) which have frontage to a rear lane.

### *Objectives:*

- a) To ensure that new residential development is provided with a street address that contributes to the amenity of the development and gives new development a 'sense of place' in the overall urban environment.
- b) To ensure that new development is consistent with and contributes to the character of the existing streetscape.
- c) To ensure that laneways are developed in a manner consistent with their design constraints and function as service roads.

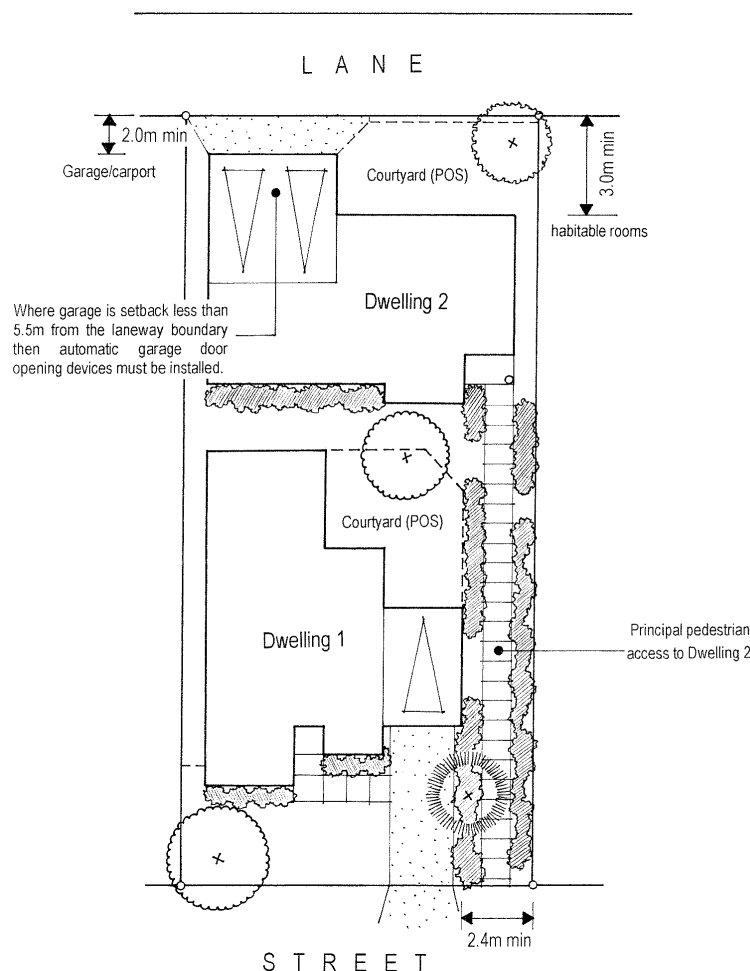
### *Design Requirements:*

- d) Where a site has a secondary frontage to a laneway:
  - i. The dwelling(s) shall not be orientated to the laneway as a principal street address.
  - ii. The main pedestrian entry point to the dwelling(s) shall form a direct connection with the principal street address and not the laneway.
  - iii. Pedestrian access to dwellings located to the rear of the site shall be contained within a corridor not less than 2.4m wide.
  - iv. The pedestrian access from the principal street frontage to the dwelling(s) located to the rear of the site shall be landscaped and provided with adequate lighting in accordance with 'Safer by Design' principles.
  - v. Car parking for a maximum of two vehicles only (consistent with the garaging provided for the existing allotment) shall be provided with access to the laneway.



- vi. No internal habitable floorspace shall be located closer than 3.0m to the property boundary with the laneway.
- vii. Garages/carports shall be located no closer than 2.0 metres to the property boundary with the laneway.
- viii. Where a garage is located closer than 5.5m to the property boundary with the laneway the garage doors shall be fitted with automatic opening devices to allow continuous movement from the laneway to the garage without obstructing the lane.
- ix. Where car parking is provided with access to a laneway care shall be taken to ensure that adequate manoeuvring area is available. Note that the narrow width of some laneways will mean that garages will need to be 'indented' from the laneway boundary and/or wider than standard garage doors installed to provide for adequate manoeuvring.

**Note:** Depending on the standard of construction and overall condition of the laneway, Council may require the laneway pavement to be upgraded to ensure an adequate standard of access to the development (refer to Council's Manual of Engineering Standards).



**Figure 21 –Appropriate Design Solution for Sites Having a Boundary to a Laneway**

## 12. ACCESSIBILITY AND ADAPTABLE HOUSING

### *Preamble:*

Adaptable Housing is accommodation that is specifically designed to enable easy modification in the future for occupation and visitation by people with disabilities or progressive frailties. Adaptable housing can suit the needs of many different people, including people with a current disability and those who will acquire disabilities gradually as they age.

“Australian Standard 4299 – Adaptable Housing” provides guidelines for the design of adaptable dwellings. 119 design features are listed in AS 4299 which are sorted into 3 different categories – essential, first priority desirable and desirable.

This section of the chapter does not strictly apply to development for the purposes of seniors living under State Environmental Policy (Seniors Living) 2004. Council however encourages development that incorporates accessible standards above and beyond those prescribed under the SEPP.

### *Objectives:*

- a) To provide adaptable housing that helps sustain community and family networks by allowing people to stay in their houses over the whole of their life.
- b) To ensure that new development is accessible and useable by people with disabilities and mobility impairment.
- c) To provide an adequate supply of housing stock that is designed and constructed to be accessible or capable of being easily adapted for use by those in the community with a disability or mobility impairment.

### *Design Requirements:*

- d) The number of adaptable dwellings to be provided in a residential development shall be as detailed in Table 5.
- e) All adaptable dwellings are required to meet the essential design criterion as listed in AS 4299 which includes the following:
  - I. Provision of plans showing the dwelling in its pre-adaptation and post-adaptation stages;
  - II. A continuous path of travel;
  - III. Provision of accessible parking spaces;
  - IV. Maneuverability both internally and externally;
  - V. Adjustable kitchen facilities;

- VI. Adjustable bathroom facilities; and
  - VII. Adjustable laundry facilities.
- f) Where possible the internal structure of a dwelling should be designed with lightweight non-load bearing walls that allow for the reconfiguration of rooms over time.

TOTAL NO. OF DWELLINGS	NUMBER OF ADAPTABLE DWELLINGS TO BE PROVIDED
Between 0 and 9 inclusive	Nil
Between 10 and 15	1 dwelling
Between 16 and 24	2 dwellings
Between 25 and 39	3 dwellings
40 or more	10% of total dwellings

*Table 5 – Adaptable Housing Ratios for Residential Developments*

**Note:** Where the total number of adaptable units to be provided is not a whole figure, the figure is to be rounded up to the next whole figure.

- g) Where an adaptable dwelling is required in accordance with the provisions of this Plan, one (1) accessible car parking space shall be provided for every adaptable dwelling. This is in addition to any accessible parking required by Section 15 of this chapter.
- h) Dwelling design should be capable of being easily adapted to suit the widest possible range of lifetime needs. This includes the needs of people with physical disabilities, people with sensory disabilities and people with intellectual disabilities.
- i) Dwellings designed for use by persons with a disability should be located at ground level unless special provision such as a lift is provided to upper floors.
- j) Car parking shall be linked to the adaptable dwelling(s) by an unobstructed path of travel at a suitable gradient for wheelchair access. These car parking spaces shall be located as close as possible to the adaptable dwellings they are intended to serve.
- k) Entries, doors and passageways shall be of sufficient width to allow for wheelchair access.
- l) Fixtures and fittings complying with AS 1428 Part 2.



- m) Where adaptable dwellings are required, accessible and continuous paths of travel in accordance with AS 1428 shall be provided from the street to circulation areas and thoroughfares within the building and site and to communal facilities/open space areas and shall be clear of obstacles so as not to impede the mobility of residents and visitors.
- n) Where a dwelling is intended for persons with a disability consideration should be given to a design suitable for in-house care or share accommodation, which offers privacy for non-related parties living within the same household.
- o) Consideration should be given to the installation of broadband capabilities for all adaptable dwellings.
- p) The following issues shall be considered when designing for adaptable housing:
- Compliance with AS 1428.1 (2001) Design for Access and Mobility – General Requirement for Access (New Building Work) *and* AS 1428.2 (1992) Design for Access and Mobility – Enhanced and Additional Requirements (Buildings and Facilities).
  - Access to and within the adaptable dwelling shall comply with the requirements of the relevant provisions of the Australian Standards. This includes access to common facilities in the development eg: BBQ areas, swimming pools, common laundry facilities etc.

*Location:*

Adaptable dwellings should be provided in convenient locations that are close to facilities such as public transport, community facilities and public services. Within the development adaptable dwellings should be located along the accessible path of travel, preferably close to the main entrance of the building.

*Bathroom Facilities:*

Bathrooms should be large allowing for wheelchair access and manoeuvring. A bath need not be provided, but the shower should allow for chair access. The handwash basin and any shelving should be provided at a height that is accessible to both a standing or seated position.

*Laundry Facilities:*

The laundry should also be large to allow for wheelchair access and circulation around the appliances. Washing machines and dryers should be front loading. A wall mounted dryer is also preferable.

*Circulation Spaces:*

Bedrooms and living areas should be an adequate size to allow for ease of movement around furniture. Doorways, entrances and hallways shall be wide enough to facilitate wheelchair access and circulation.

*Kitchen Facilities:*

The kitchen should be of a flexible design so that modifications can be made if required in the future. Cupboard and pantry shelf heights should be adjustable to make them easy to reach.

*Flooring:*

Tiles or timber flooring is preferable to carpet. However, if carpet is to be provided it should be low pile with no underlay. Non-slip tiling should be provided in wet areas.

*Walls:*

Walls located along main travel paths and in bedrooms and bathrooms should be reinforced to allow for installation of grab rails if necessary.

*Windows:*

Windows should be operable with one hand (preferably sliding) and located with a sill height no higher than 700mm from the floor.

*Landscaping:*

Outdoor areas should be designed to be low maintenance, with no lawns and a drip irrigation system. All paving should be even and be wheelchair accessible.

### **13. LANDSCAPE DESIGN**

The following landscape design requirements only apply to dual occupancy, multi dwelling housing and residential flat building developments.

*Objectives:*

- a) To enhance the appearance, amenity, and energy efficiency of new development for the benefit of users and the community in general.
- b) To encourage the use of water efficient landscape systems embracing the principals of water sensitive urban design (WSUD).
- c) To encourage the integration of building and landscape elements.

- d) To protect existing landscape features including natural landforms, watercourses and native vegetation and integrate them, where possible, with new development.
- e) To enhance the acoustic environment (eg: through fencing, blade walls and location of open space areas) of a development and provide visual privacy and shade.
- f) To blend new development into an established streetscape and neighbourhood.
- g) To encourage the use of native plant species.

*Design Principles:*

- h) Site disturbance shall be minimised and existing landscape elements such as above-ground rock formations, significant trees and watercourses shall be preserved where possible.
- i) In established areas, landscaping should relate to the scale of other elements of the streetscape and of buildings/trees within the development itself and on adjoining land.
- j) The development shall be designed to provide the maximum opportunity for tree planting.
- k) Appropriate vegetation shall be used to provide shade to the northerly and westerly elevations of buildings in summer, while allowing penetration of sunlight in winter.
- l) Landscaping should be geared towards user requirements, taking into account maintenance, shade provision and aesthetic quality.

*Design Requirements:*

- m) With the exception of a single dwelling, all residential development shall be supported by a detailed landscape plan (inclusive of planting scheme) prepared and endorsed by a suitably qualified landscape consultant (eg landscape architect or horticulturalist) as meeting the objectives and design requirements of this chapter.
- n) The landscape design should, as appropriate:
  - I. Retain existing vegetation for integration with the landscape design for the development;
  - II. Employ the use of native vegetation suitable for local conditions which require lower maintenance and demand less water;



- III. Incorporate the use of advanced specimens to ensure that the completed built form is immediately and effectively softened by landscaping.
  - IV. Define a theme for new internal streets/driveways or complement existing streetscapes external to a site;
  - V. Be of an appropriate scale relative to the width of driveways and the associated space between buildings and the building bulk – trees should be introduced which achieve a height above the roofline of the dwelling to soften built form;
  - VI. Take into account view corridors and introduce species that, where possible, preserve opportunities for views when the plants are mature;
  - VII. Improve privacy and minimise overlooking between dwellings and also overlooking from public spaces such as footpaths and communal open space;
  - VIII. Provide adequate lighting for vehicular and pedestrian safety;
  - IX. Account for streetscapes and landscapes of heritage significance;
  - X. Be tolerant of site conditions and adequately mulched in order to reduce demand for water, herbicides and fertilisers;
  - XI. Clearly identify where turfed areas are to be located and specify the materials used for forming the edges of garden beds;
  - XII. Detail the various paving materials used throughout the site for driveways, pedestrian pathways, parking areas and private open space areas.
- o) The landscape plan for the development shall recognise private open space areas as ‘outdoor rooms’ and the design shall incorporate:
- I. Paved areas or decks for outdoor dining/relaxation;
  - II. Garden areas to reduce the ‘hard’ visual impact of fencing, paving and walls;
  - III. Built-in seating (optional) – refer to example courtyard area at Diagram 19.
  - IV. The inclusion of trees of a scale which will provide adequate shade (deciduous may be appropriate depending on orientation of POS);
  - V. Provision of drying areas and garbage storage areas and the screening of these areas with vegetation and/or structural elements such as timber panels;
  - VI. Water features (optional);
  - VII. Full details of materials for fencing, paving etc.
- Refer to Figure 19 for example of courtyard landscaping.
- p) Residential developments that make the most positive contribution to streetscapes and the urban environment and provide higher levels of amenity and enjoyment for residents are those which have a sound

maintenance regime for landscaped areas – both private open space and communal areas.

- q) The landscape design for a development should integrate with the stormwater management scheme for the development having regard to 'water sensitive urban design' (WSUD) principles as detailed in the following publications:
- "Urban Stormwater – Best Practice Environmental Management Guidelines" – CSIRO Publications, 1999.
  - Maitland City Council – Manual of Engineering Standards (2005).

## 14. FENCING AND WALLS

### *Objective:*

- a) To ensure that all fences and walls provide privacy, security and noise attenuation without having a detrimental impact upon the streetscape, adjacent buildings, or the use of open spaces areas within the development or on adjoining land.

### *Design Principles:*

- b) Fencing and walls shall:
  - I. Be compatible with the design and materials used in the proposed development;
  - II. Provide some outlook from buildings to the street to facilitate casual surveillance and safety;
  - III. Assist in highlighting entrances to dwellings and establishing a sense of identity in the streetscape;
  - IV. Be proportionate in relation to the width of the allotment;
  - V. Integrate with other facilities such as letter boxes and garbage screens.

### *Design Requirements:*

- c) The landscape plan prepared for the development shall incorporate full details of all fencing proposed including:
  - location
  - height
  - materials
  - colours.
- d) For all forms of residential development, with the exception of a single dwelling-house, sheet metal fencing shall not be permitted where it forms a boundary with a street, or communal area within a development;
- e) Fencing between dwellings shall be designed to provide visual and acoustic privacy to internal rooms and outdoor private open space. The recommended height for these dividing fences is 1800mm high but not less than 1500mm high.
- f) For all residential development where sheet metal fencing is used it should be of mid to dark earthy colour to make the fence visually recessive;



- g) Fencing within the street building line setback shall not be located closer than 900mm from the street property boundary for the principal street frontage of the development (refer Figure 22).
- h) Where side boundary fencing projects forward of the street building line setback to the principal frontage then the maximum height of the fence shall not exceed 750mm within the building line setback area. *(Note: This requirement does not apply where the development qualifies to use the building line setback for private open space – refer Sec B9.9(h)).*
- i) Front fencing for the purposes of containing a dwelling's principal private open space area, shall not occupy more than 50% of the street frontage of an allotment and shall not contain or obscure the principal pedestrian entry point to the dwelling from the street. Fencing may occupy greater than 50% of a site frontage if it can be demonstrated that the increased length of fencing is consistent with the established fencing within the street and character of the street, or because of environmental impact considerations, eg. noise.
- j) Solid fencing for the purposes of containing a dwelling's principal private open space area, shall not exceed a height of 1500mm where located within the street building line setback unless it can be demonstrated that a higher fence is appropriate having regard to issues of noise, privacy, existing streetscape and architectural merit.
- k) Nothing in this plan prevents the fencing of the street frontage of a property subject to the following:
- The building line setback area is not required for the purposes of principal open space;
  - The fence shall not exceed a height of 1200mm (1.2 metres);
  - The fence shall not comprise sheet metal material;
  - The fence shall be of a design/materials which integrate with the dwelling(s) located on the land.

### Advice

Fencing between adjoining properties is regulated by the Dividing Fences Act 1991. This Act is administered by the Local Court. For single dwellings the fencing of the property boundary (type of fence, height of fence, installation of fence and cost sharing arrangements) is a matter that must be determined between the two adjoining landowners and then the Court in those circumstances where agreement cannot be reached.

In the case of residential development proposing more than one (1) dwelling then the developer shall install and meet the cost of that fencing necessary to meet the requirements of this Chapter.

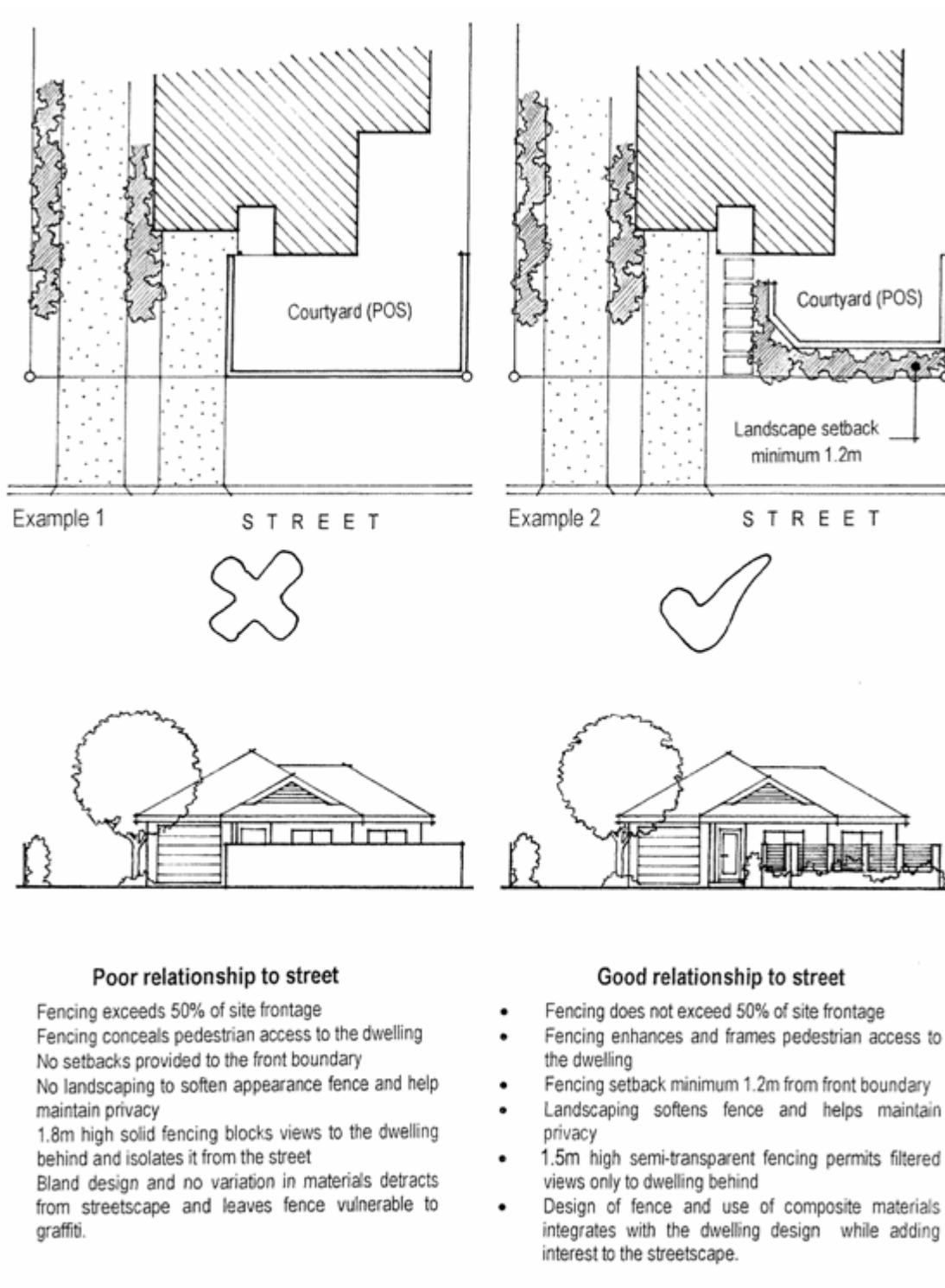


Figure 22 – Fencing to a Street Frontage

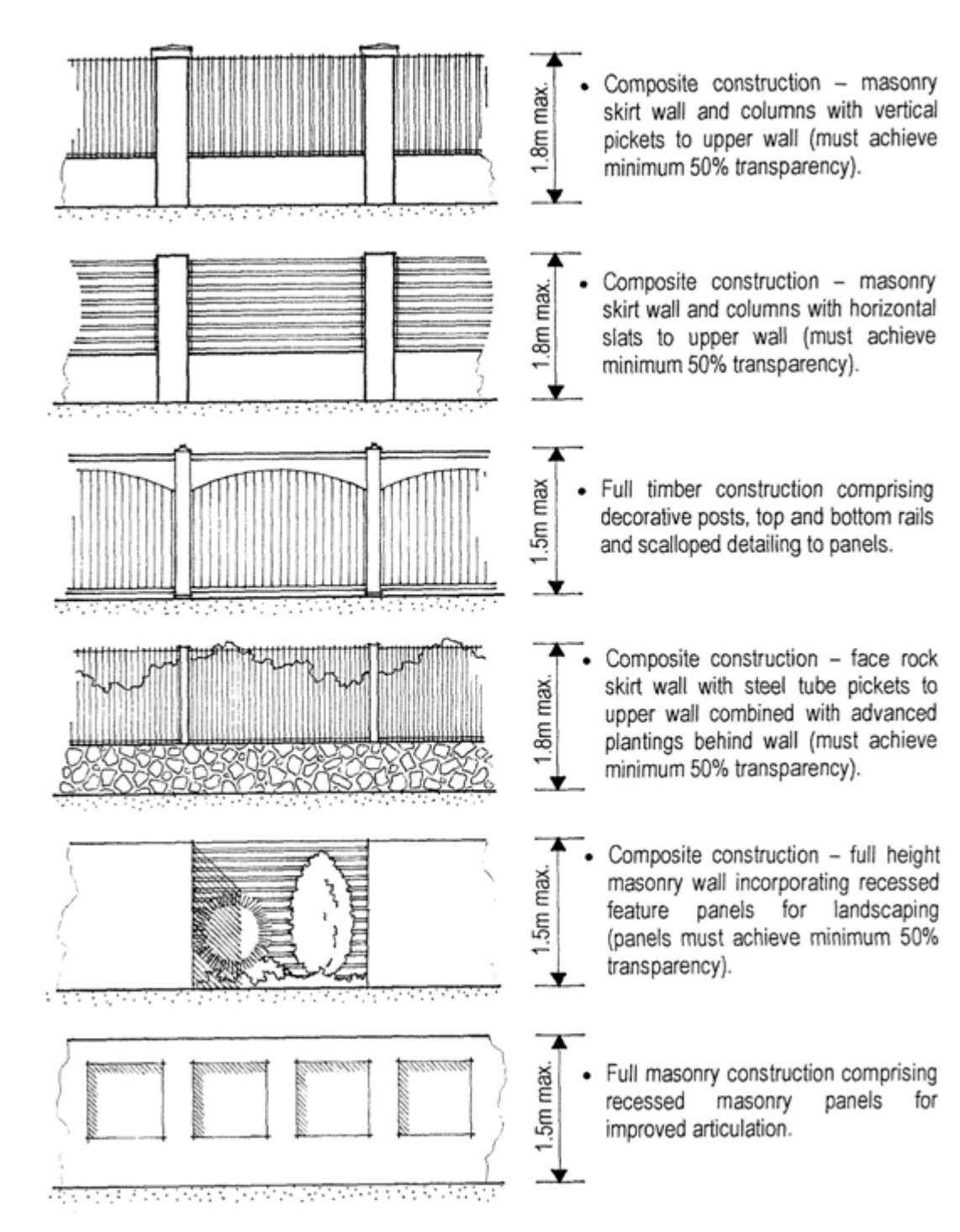


Figure 23 – Examples of Fencing Designs

**Note:** Applies where fencing is proposed forward of the street building line or where fencing is visible to a public place or communal areas internal to a development.



## 15. DRIVEWAY ACCESS AND CARPARKING

### *Objectives:*

- a) To provide convenient, accessible and safe parking to meet the needs of residents and visitors which does not dominate the streetscape or cause congestion in nearby streets.
- b) To ensure that parking areas are designed to accommodate the needs of those persons with a disability.
- c) To encourage the design of access and parking as part of the overall landscape design.

### *Design Principles:*

- d) The design of driveways and parking areas should have regard to:
  - The widest range of user groups inclusive of disabled persons;
  - The safety of pedestrians, cyclists and vehicles;
  - Proximity and frequency of public transport;
  - Street facilities such as kerb inlet/drainage pits, poles and services, street trees, bus and taxi stands/shelters, distance to corners;
  - Street width, traffic volume and on-street parking;
  - Part E.3: Heritage Conservation Areas

### *Design Requirements:*

#### Driveways:

- e) Driveways shall be located no closer than 900mm from any side boundary for the full depth of the building line. This 900mm offset shall be provided with landscaping of suitable scale to ensure that sight lines along the public footpath and the roadway are not obstructed.
- f) Driveways within the site should be a minimum of 2.7 metres wide. (Note: In heritage conservation areas strip driveways may be a more suitable alternative – refer to Part E.3: Heritage Conservation Areas).
- g) Landscaping shall be incorporated into the design of driveway and manoeuvring areas to minimise the expanse of hard surfaces and adverse visual impacts on the streetscape.
- h) Straight 'gun barrel' driveway arrangements are not supported. Where long driveways are proposed landscaping of minimum width 1.0 metres shall be provided along the boundary/fenceline incorporating wider

landscape ‘blisters’ to create a ‘meandering’ effect and contrasting pavement treatments should be used to reduce the expense of a single pavement material.

- i) Driveways within a site shall be at a maximum grade of 4:1 (H:V).
- j) Driveway design from the road pavement across the public footpath area shall be in accordance with Council’s “Manual of Engineering Standards” and appropriate structural drawings.
- k) Driveways across the footway at the access point on the road reserve should be generally a maximum of 5 metres wide, although variation may be justified on turning and traffic safety issues.
- l) Driveways across the footway shall be sited to avoid street trees, kerb inlet pits and other services such as light/power poles.
- m) For developments other than single dwellings adequate vehicle manoeuvring area to Australian Standard AS 2890 shall be provided to enable vehicles to enter and exit the site in a forward direction.
- n) For developments other than single dwellings, vehicle driveways shall be clearly distinguished from pedestrian entries and paths through design, finish or location.
- o) On sites identified as Bushfire Prone Land under the Bush Fire Prone Land Maps endorsed by the New South Wales Rural Fire Service, access shall comply with the requirements of the document “*Planning for Bushfire Protection 2006*” (Planning NSW and Rural Fire Service).
- p) Vehicle car parking spaces and manoeuvring areas (not including a driveway providing direct vehicle access to a garage or carport from the street) shall not be located within the building line setback area.

#### Car Parking:

- q) The minimum number of off-street car spaces shall be as follows:
  - I. One (1) space for each one or two bedroom dwelling;
  - II. Two (2) spaces for each dwelling containing more than two bedrooms;
  - III. One (1) visitor space for the first three dwellings and one (1) space for every five dwellings thereafter or part thereof.
- r) A minimum of one (1) off-street parking space should be provided for each dwelling as a covered space in the form of either a garage, carport or within

a secured basement parking area. The parking space(s) should be convenient and accessible to the dwelling which it services.

- s) Visitor car parking spaces should be freely accessible at all times and not located behind security gates or within secured basement car parking areas.
- t) The minimum dimensions for car parking bays and aisles shall be in accordance with Figure 24.
- u) Garages should comprise minimum dimensions in accordance with Figure 25.
- v) Developments comprising up to two (2) dwellings may have the parking space(s) for both dwellings directly addressing and accessible from its street frontage.
- w) Developments comprising three (3) or more dwellings may have one (1) dwelling only with a garage/carport directly addressing and accessible from its street frontage of the development.
- x) Tandem (or stack) parking is permissible only where the garage for the dwelling has a direct frontage/address to a street. In this instance, the vehicle space on the driveway in front of the garage/carport can be calculated as part of the parking requirement for that dwelling but shall not be counted as a 'visitor' space.

Accessible Car Parking (disabled users):

- y) Designated accessible car parking facilities shall:
  - I. Be provided at the rate of one (1) accessible parking space for every adaptable dwelling;
  - II. Be located as close as possible to the adaptable or accessible dwelling they are intended to serve or alternatively as close as possible to each accessible public entrance;
  - III. Be linked to an accessible entrance to a building or to a wheelchair accessible lift by a continuous accessible path of travel, and preferably under cover;
  - IV. Have a minimum width of 3.8 metres as shown in Figure 26. An overlap allowance of 500mm may apply when, parallel to the parking space, there is an adjoining walkway or similar surface which:
    - Is at the same level as the car parking space;
    - Is firm and level, with a fall not exceeding 1 in 40 in any direction;
    - Is not another car parking space;



- Is not less than 1000mm in width.
- V. Have a minimum vertical clearance of not less than 2500mm and a minimum length of 5.5 metres as shown in Figure 26;
  - VI. Both the designated parking space and the continuous accessible path of travel shall be clearly signposted;
  - VII. The signage for the actual parking space shall be painted on the surface of the paved space and signposted at a height of not less than 1500mm centrally located at the end of the space;
  - VIII. The provision of accessible parking shall be signposted at the entrance of the car park.

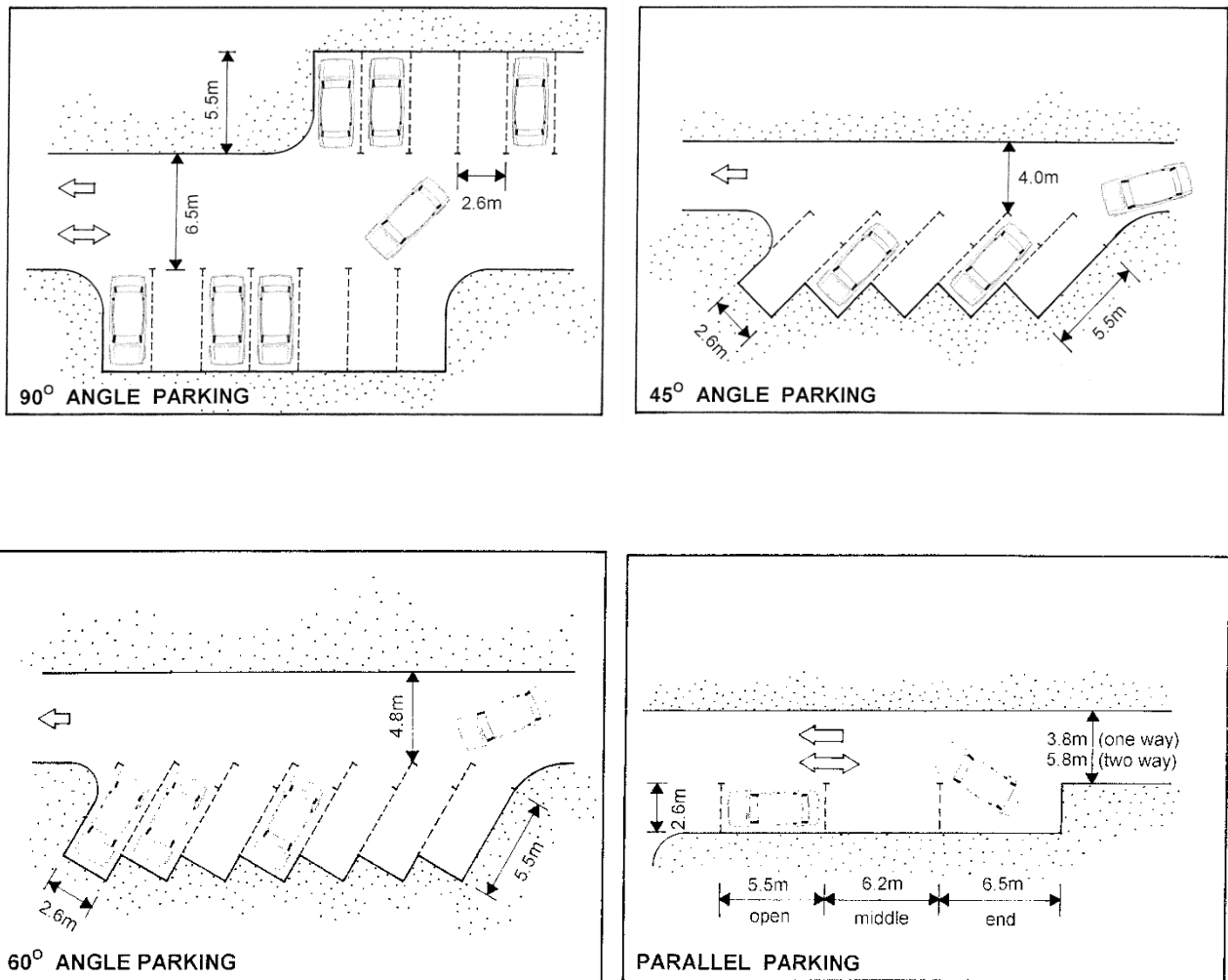


Figure 24 – Required Layouts for Parking Spaces and Driveways

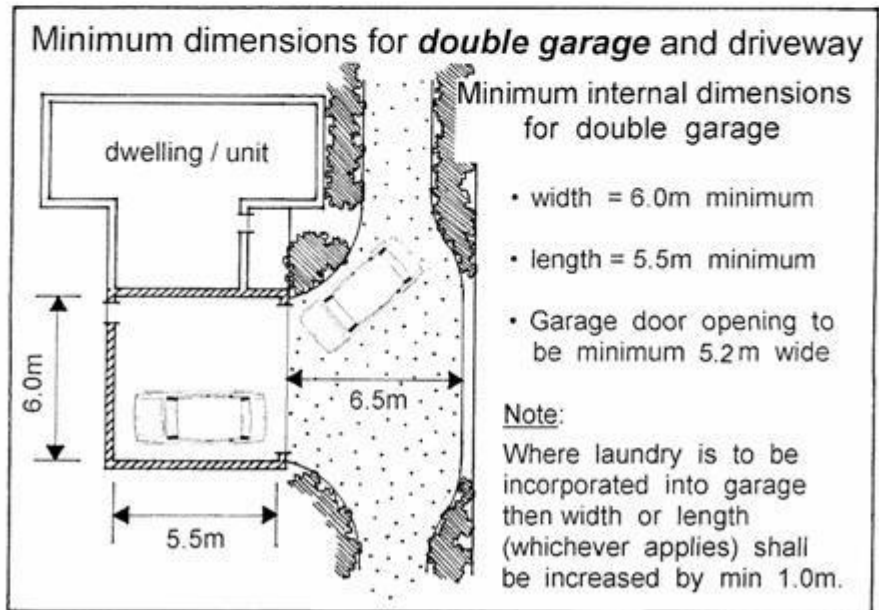
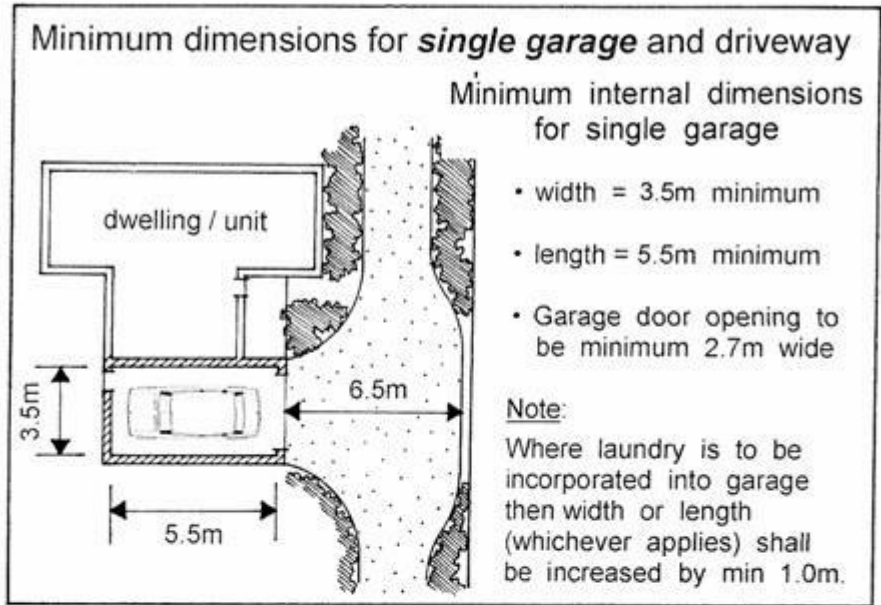
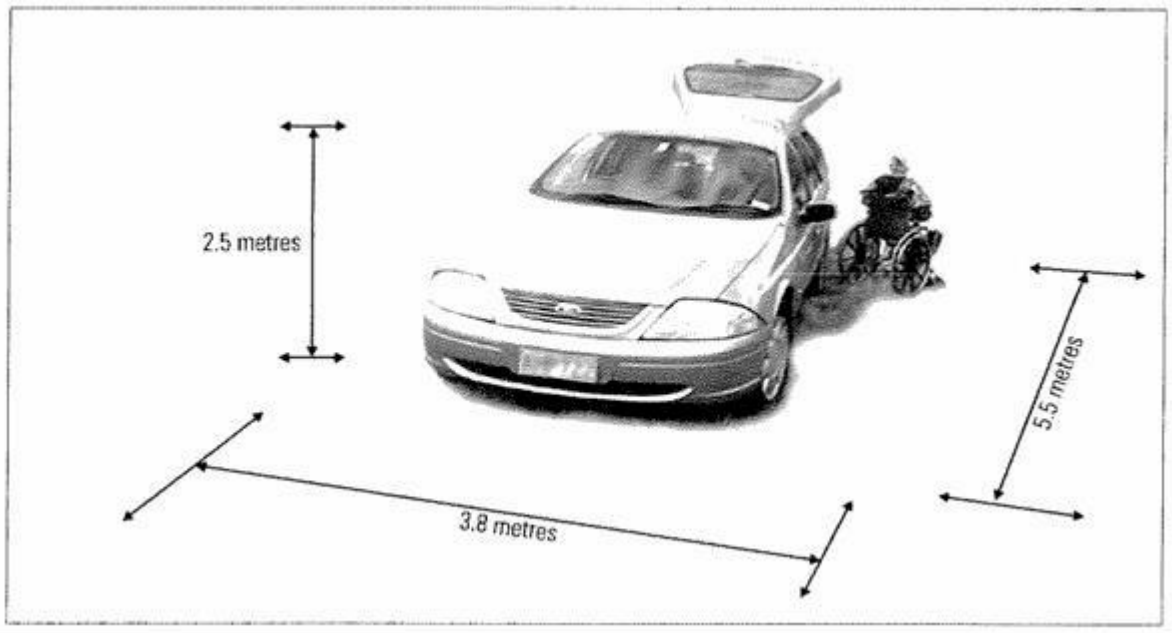


Figure 25 – Minimum Dimensional Requirements for Garages & Associated Manoeuvring Areas



*Figure 26 – Minimum Dimensional Requirements for Accessible Car Parking Spaces.  
(Source: City of Sydney Access DCP 2000)*



## 16. VIEWS AND VISUAL AND ACCOUSTIC PRIVACY

### *Objectives:*

- a) To encourage the sharing of views whilst not restricting the reasonable development potential of a site.
- b) To site and design buildings to meet projected user requirements for visual and acoustic privacy.
- c) To protect the visual and acoustic privacy of nearby buildings and private open space.

### *Design Principles:*

#### View Sharing

- d) All property owners should be able to develop their property within the established planning guidelines, however, existing views should not be substantially affected where it is possible to design for the sharing of views.
- e) Grand vistas and significant views that are recognised and valued by the community should not be obscured by new development.
- f) Heritage or familiar dominant landmarks should be retained and not obscured.

#### Privacy

- g) Proper consideration shall be given to privacy outcomes at the site planning stage. Development shall be designed such that the privacy of each individual dwelling and adjacent existing dwellings is protected, with particular regard to private open spaces and the windows of habitable rooms.

### *Design Requirements:*

#### Visual Privacy

- h) Overlooking of private open space and direct views between living area windows shall be screened or obscured using one or more of the following methods (as shown in Figures 27 and 28):
  - I. Separation distance between windows of habitable rooms or balconies
  - II. Separation by design
  - III. Offset living room windows of opposing dwellings/units

- IV. Splay windows to redirect sight lines
- V. Build to a boundary and avoid window openings
- VI. Screen planting between units
- VII. Fencing design or privacy screens
- VIII. Use of fin walls
- IX. Planter boxes
- X. Louvre screens (vertical or horizontal)
- XI. Pergola
- XII. Change in level

### Acoustic

- i) Where no design techniques and screening (eg fences or walls) are proposed, openings of adjacent dwellings shall be separated by a distance of at least 3.0m.
- j) Site layout shall separate active recreational areas, shared parking areas and driveways, and service equipment areas away from bedroom areas of dwellings.
- k) Mechanical plant or equipment (eg. Air conditioning units) shall be designed and located to minimise noise nuisance.
- l) Shared walls and floors between dwellings shall be constructed to reduce noise transmission in accordance with the Building Code of Australia.

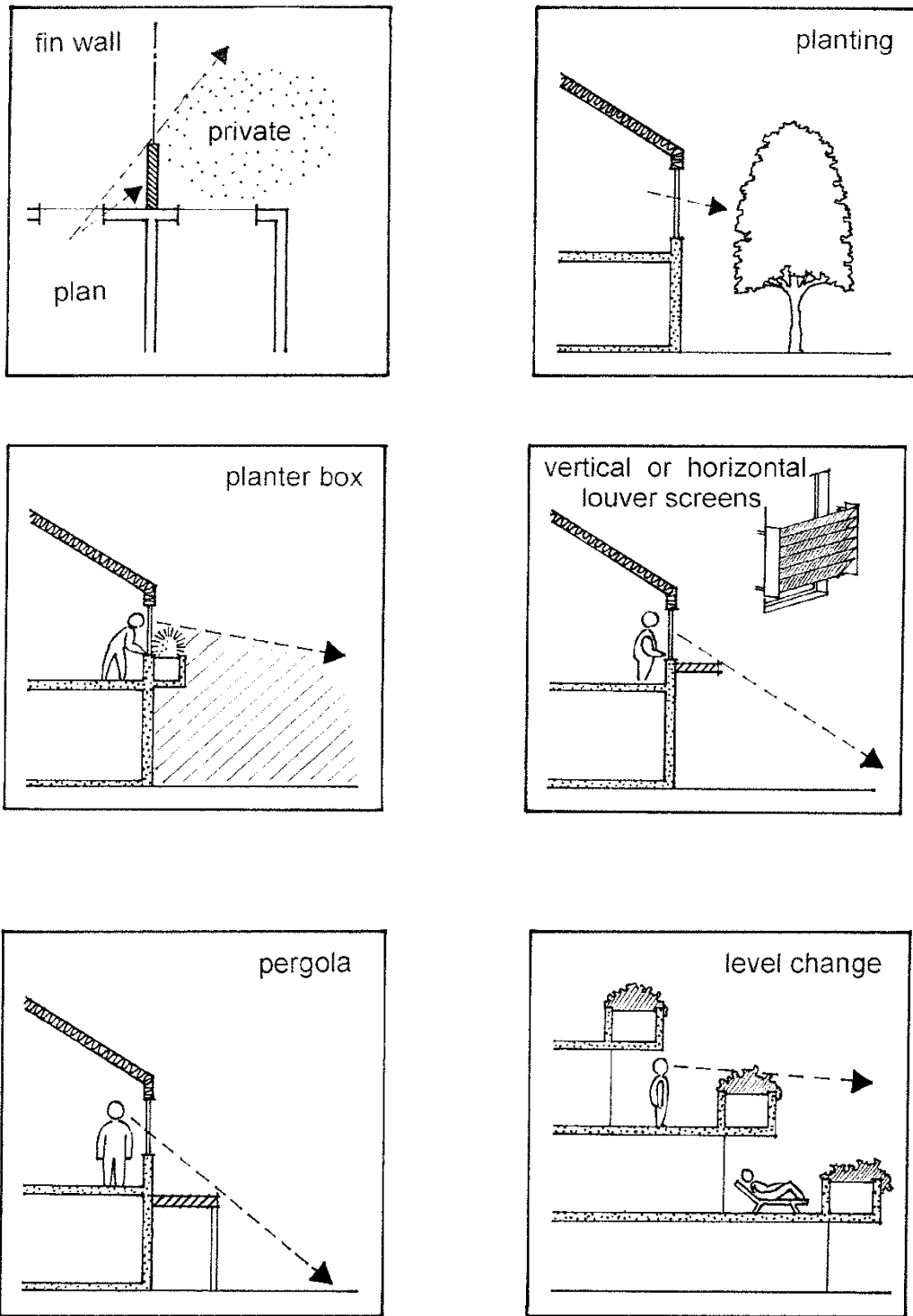


Figure 27 – Some Design Techniques to Reduce Overlooking from Upper Levels.



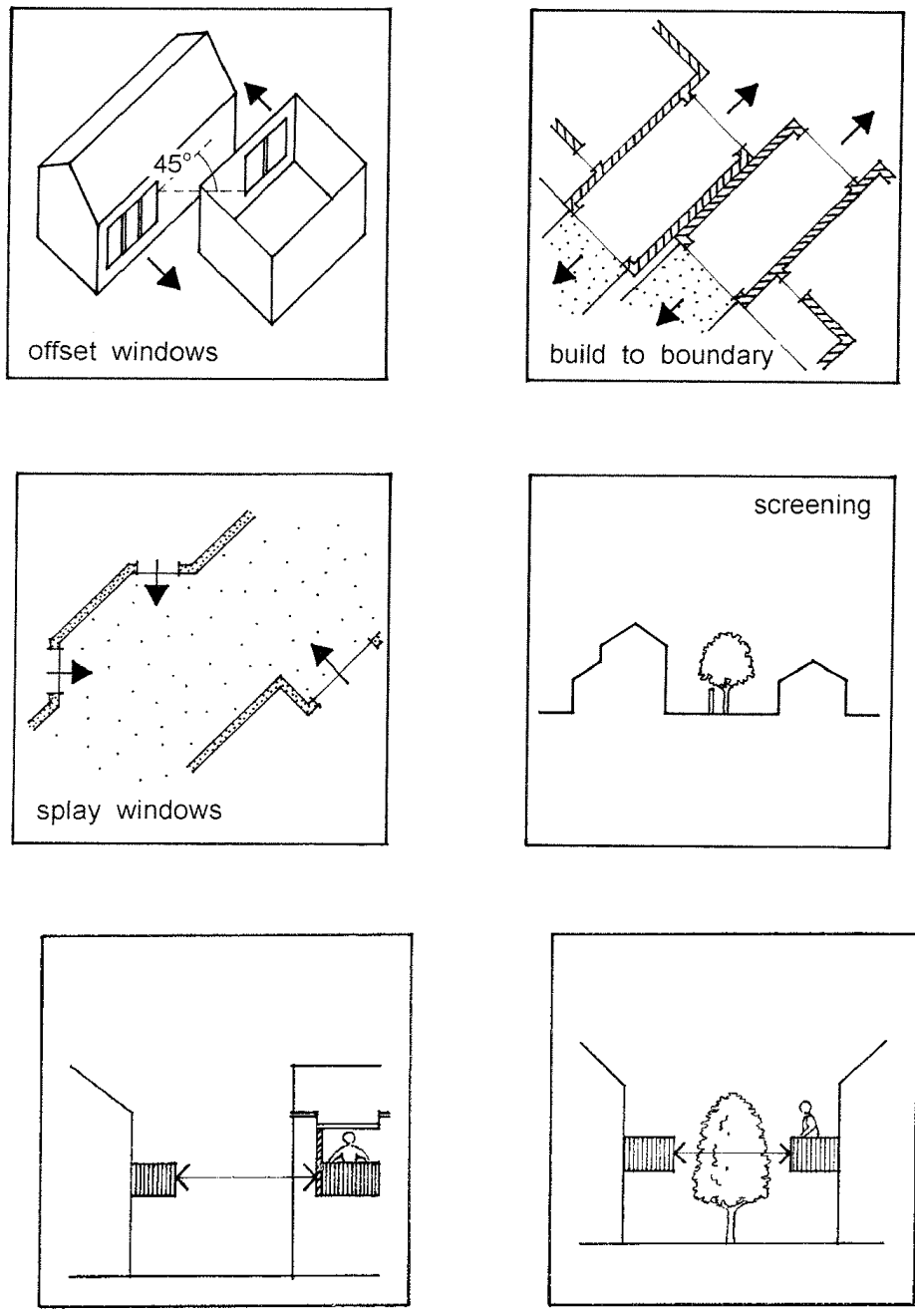


Figure 28 – Some Design Techniques to Prevent Direct Viewing into Adjoining Internal and External Living Areas.

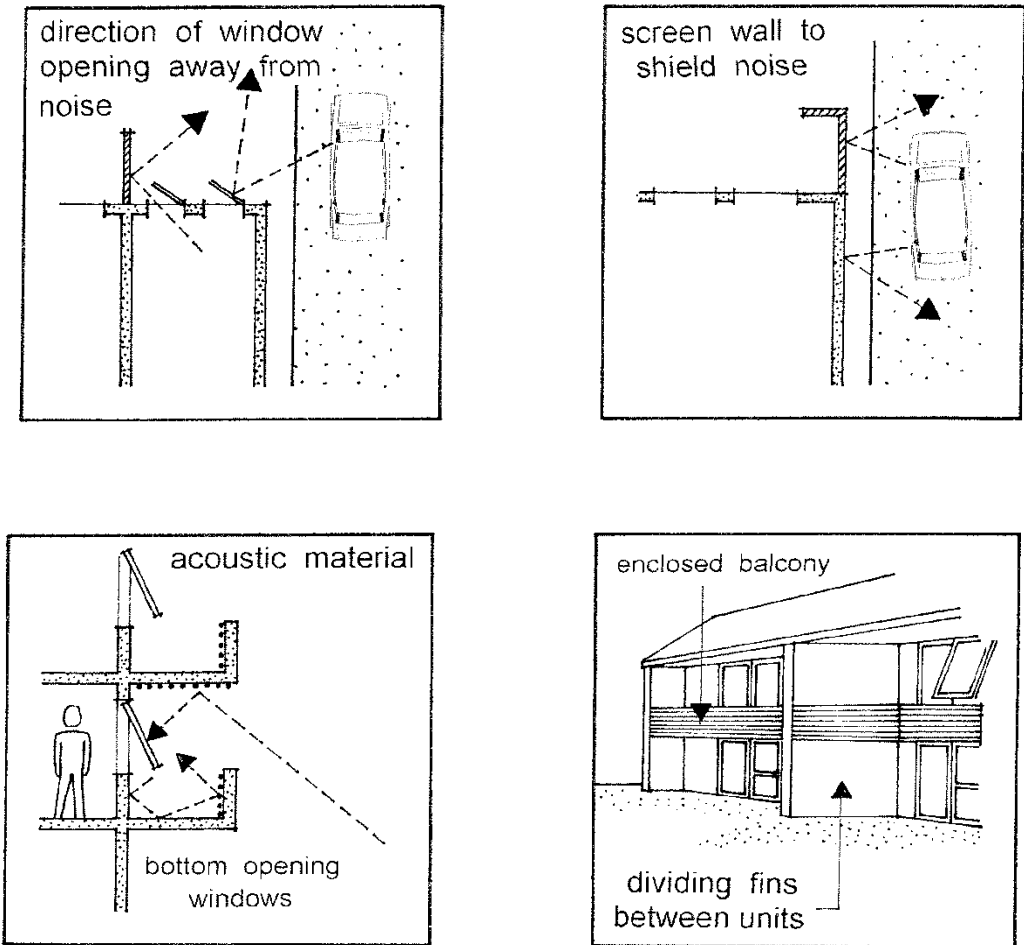


Figure 29 – Some Design Techniques to Achieve Acoustic Privacy

## 17. WATER AND ENERGY CONSERVATION

### *Objectives:*

- a) To reduce total water and energy use in residential buildings in accordance with State Environmental Planning Policy – Building and Sustainability Index (SEPP BASIX) by promoting solar access and reducing heat loss and energy consumption for heating and cooling.
- b) To provide dwellings with adequate solar access and ventilation to both internal habitable rooms and private outdoor open spaces.
- c) To avoid the potential for significant overshadowing of habitable rooms and private open spaces within the development itself and also with respect to adjoining development.
- d) To encourage the use of building materials that are energy efficient, non-harmful and environmentally sound.

**Note:** The *Environmental Planning and Assessment Regulation 2000* prescribes when a BASIX Certificate is required to be provided with a Development Application.

### *Design Requirements:*

- e) It is recommended that buildings be orientated with the main indoor and outdoor living spaces towards the north and north-east (the optimum orientation for indoor and outdoor living spaces are shown in Figure 20).
- f) To the fullest extent possible, buildings should be insulated.
- g) Buildings should include adequate thermal mass and windows located, sized and shaded to facilitate thermal performance.
- h) Windows in west facing walls should be avoided. However, where not possible, west facing walls should be designed with windows fitted with appropriate shade structures and/or landscape screens.
- i) Building design should, wherever possible, include a north facing roof upon which a solar hot water system or collector could be installed. The building's internal plumbing should be designed to facilitate the installation of such a system.
- j) The design of the building should maximise the cooling potential of natural ventilation by providing breeze pathways through the building (refer Figure 32).



- k) Shadow diagrams may be required for residential developments of two storeys and over in urban zones if, in the opinion of the assessing officer, they are required and for all residential developments comprising two (2) or more dwellings where ground level private open space is located in other than an “optimum” or “good” location as shown in Figure 20. The shadow diagram shall address the overshadowing impact of new development and also the impact from adjoining development against the criteria provided under l) below.
- l) Development within the categories specified under k) above shall ensure that adequate solar access is provided to both existing development adjoining the project site as well as to the dwellings and their associated outdoor open spaces within the new development itself. In this regard:
- I. Development shall not reduce the sunlight available to windows of living areas that face north to less than 3 consecutive hours between 9.00am and 3.00pm on the Winter Solstice (June 21);
  - II. At least 50% of the principal area of ground level private open space shall achieve not less than 3 hours sunlight between 9.00am and 3.00pm on the Winter Solstice (June 21). Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%;
  - III. At least 50% of the principal area of above ground level private open space shall achieve not less than 3 hours sunlight between 9.00am and 3.00pm on the Winter Solstice (June 21). Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%;
  - IV. At least 50% of the area of communal private open space shall achieve not less than 3 hours sunlight between 9.00am and 3.00pm on the Winter Solstice (June 21). Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%.

**Note:** Council reserves the right to request shadow diagrams with respect to single storey development if, by reason of the topography of the site, the nature of adjoining development and fencing, the orientation of the building or the design of the building, there is potential for significant loss of solar access to adjoining lots or to dwellings within the development itself.

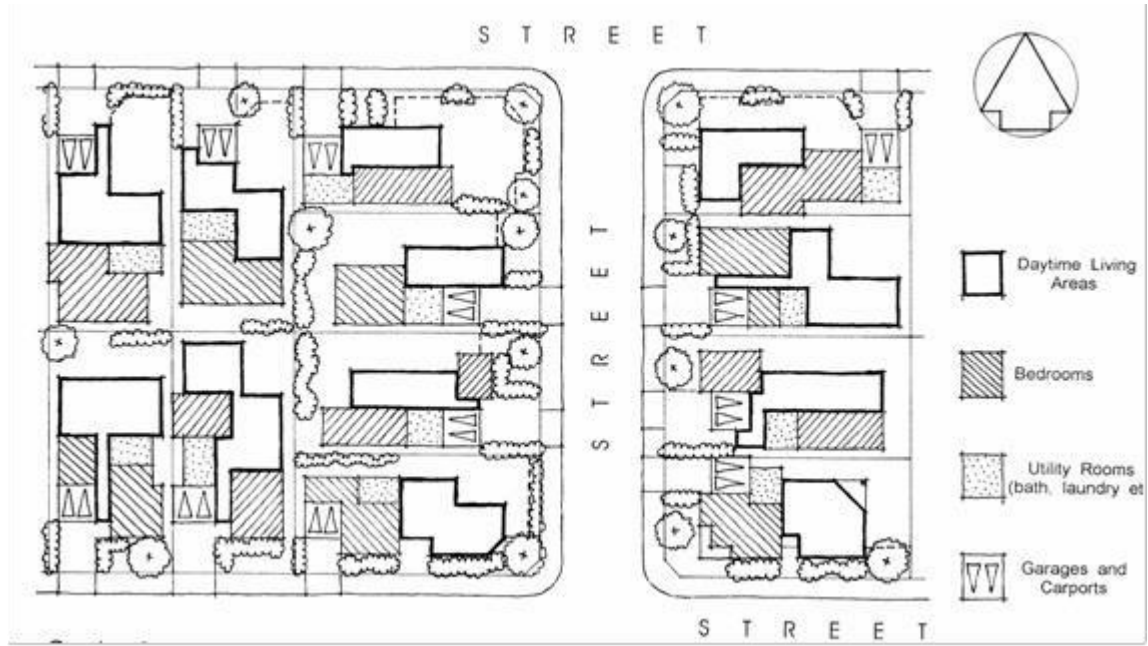


Figure 30 – Good Solar Access can be Achieved Through Appropriate Design Regardless of Lot Orientation

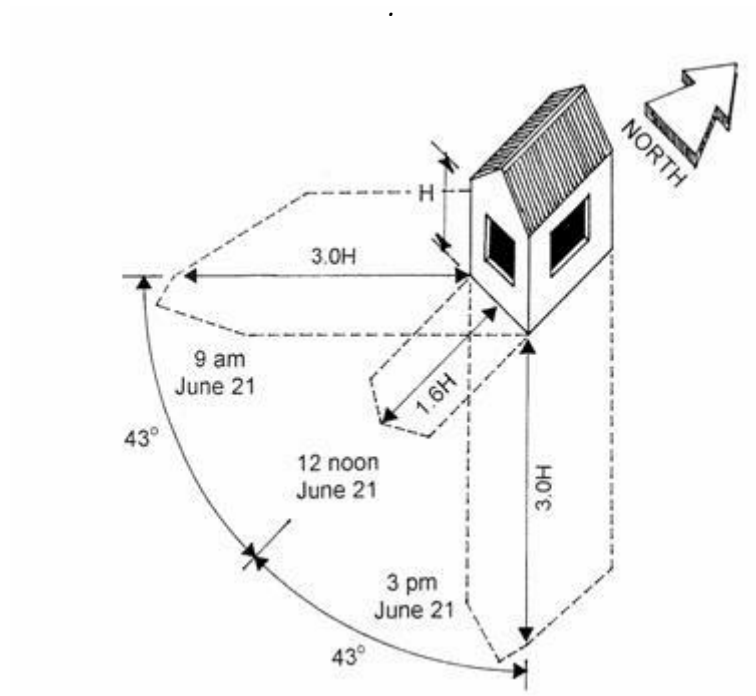


Figure 31 – Guide to Shadow Lengths on Level Sites

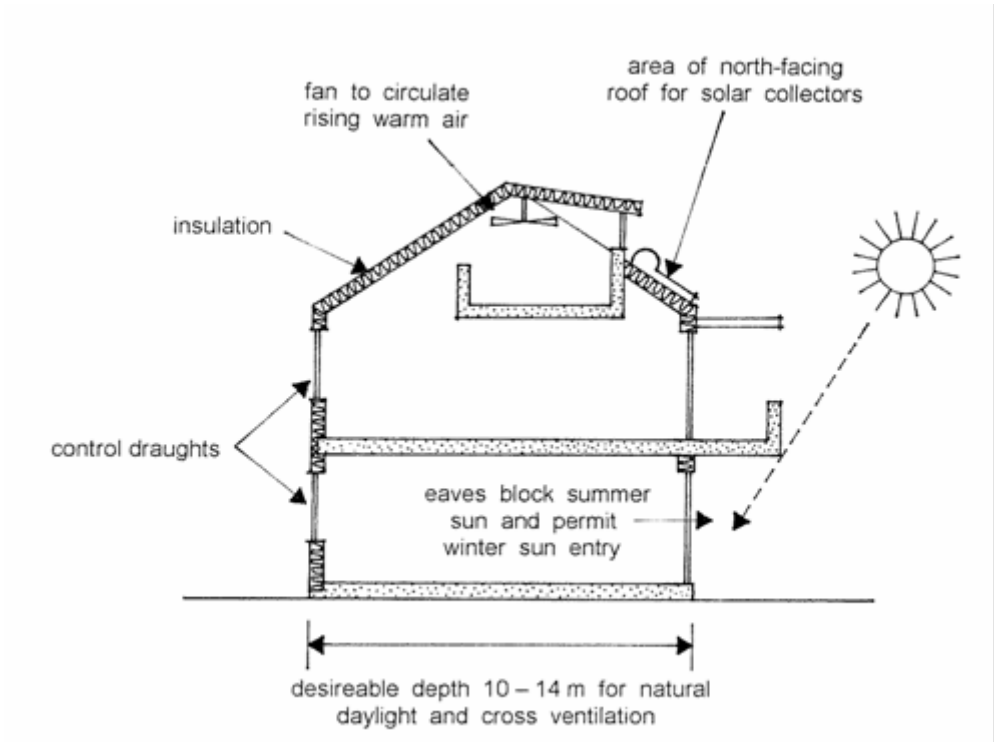


Figure 32 – Considerations for Solar Efficient Housing

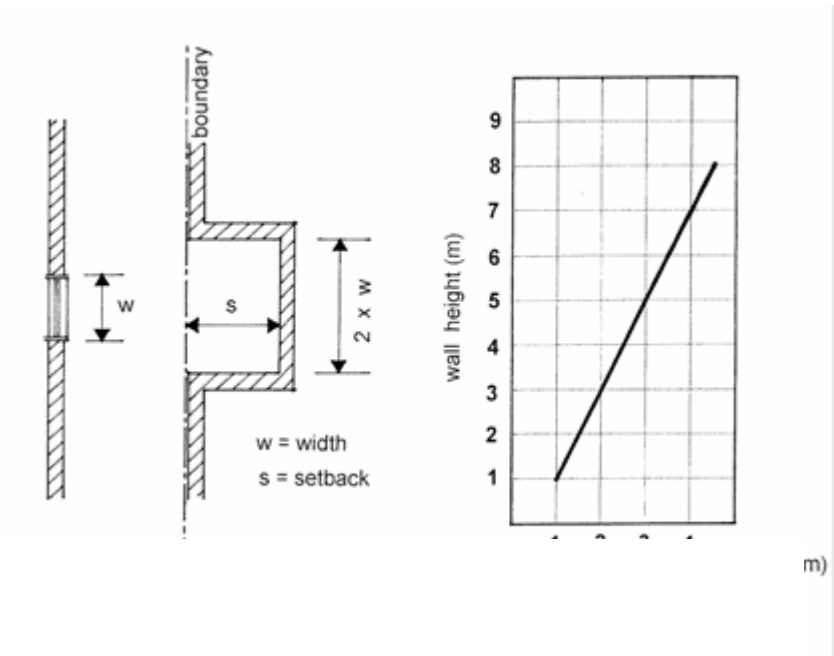


Figure 33 – Where 'zero lot line' is proposed (building built to a boundary) then light wells may be required to ensure adequate levels of solar access and ventilation to windows of adjoining buildings



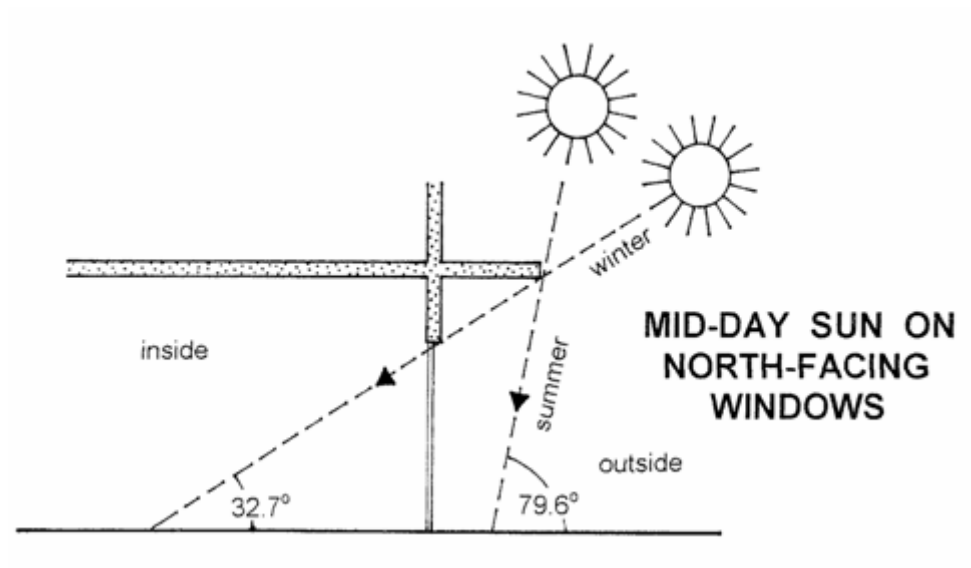


Figure 34 – Design Principles for Controlling Solar Access

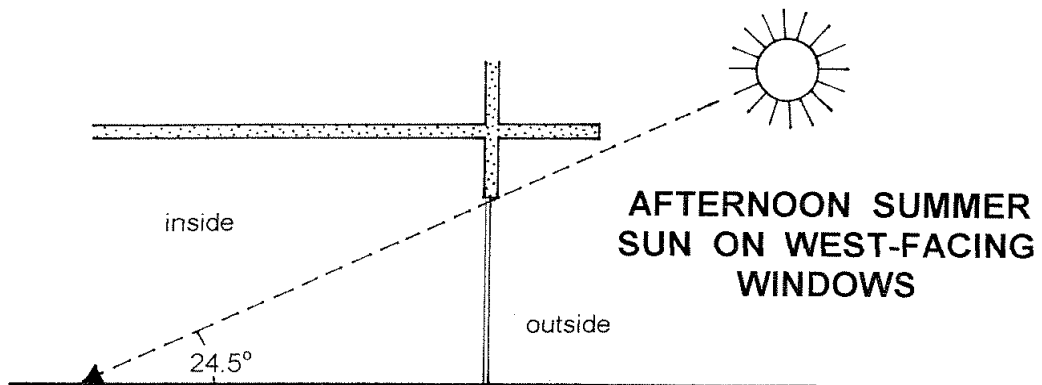


Figure 35 – Exclude Hot Afternoon Sun by Shading West-Facing Windows.

## 18. STORMWATER MANAGEMENT

### *Objectives:*

- a) To provide an effective stormwater management system which is sustainable and requires minimal maintenance.
- b) To prevent erosion, sedimentation and other pollution.
- c) To ensure that the rate of post-development stormwater discharge should be no greater than that of the pre-development stormwater discharge.
- d) To ensure that control flowpaths (eg: spillways, swales) are provided to cater for stormwater overflows.
- e) To cater for flows entering the site and to ensure that there are no adverse effects from flows leaving the site.
- f) To encourage the use of rainwater tanks as a means of reducing separate stormwater detention requirements and achieving more sustainable water re-use within the dwelling and for landscaping purposes.
- g) To ensure that drainage systems are designed for safety and that the systems avoid any potential for stormwater inundation of habitable floor areas.

### *Design Requirements:*

- h) Due to downstream flooding/capacity issues and for developments other than single dwellings, on-site detention of stormwater is required in accordance with Council's Manual of Engineering Standards, to restrict the discharge rate of stormwater runoff. The methods may include tanks (either underground or aboveground) or surface storage areas such as driveways or landscape depressions. The amount of storage volume required is subject to detailed calculation but may be estimated at 9 cubic metres per 1000sqm of site area.
- i) A detailed erosion and sediment control plan (ESCP) should be submitted with the development application. The ESCP should be prepared in accordance with the requirements of Council's Manual of Engineering Standards.
- j) Ultimate discharge for collected stormwater runoff should be to a street drainage system, to an interallotment drainage line, or by approval to a public area. The system should be gravity-drained. Pumping of stormwater is not permitted.

- k) The development site must be provided with an overland flowpath for the major storm event (1% AEP).
- l) Stormwater storage tanks with a capacity in excess of that required to meet BASIX criteria may be installed to provide for on-site stormwater detention. Council's Manual of Engineering Standards provides details for calculations and 'BASIX' relationships. These tanks, unless provided underground, must not be located within an area of principal open space. The area occupied by the tank must not be included for the purposes of calculating the required private open space at ground level for each unit.
- m) As a minimum requirement, a stormwater drainage "concept plan" shall be submitted with the development application. The plan should include:
  - I. the pipeline/pit layout
  - II. water storage means/area
  - III. indicative levels at critical design points
  - IV. overland flowpaths including details of the means of capturing runoff from all impervious surfaces

**Note:** Performance Criteria are included as Annexure B to this chapter.

## 19. SECURITY, SITE FACILITIES AND SERVICES

### *Objectives:*

- a) To provide adequate personal and property security for residents via "Crime Prevention Through Environmental Design" principles – legibility, casual/natural surveillance, risk assessment and reinforcing territoriality.
- b) To ensure that site facilities such as garbage bin enclosures, mail boxes, clothes drying areas, external storage facilities, exterior lighting and signage are designed to be functional, visually attractive and easy to maintain.
- c) To ensure that all developments are adequately serviced with essential services in a timely, cost effective and efficient manner.
- d) To ensure that essential amenities and communication facilities are integrated within the residential design.

### *Design Requirements:*

- e) For developments proposing ten (10) or more dwellings a detailed 'Crime Prevention Through Environmental Design' assessment shall be prepared by an accredited person and submitted with the development application.



- f) Buildings adjacent to a public or communal space shall be designed to maximise natural surveillance, having at least one (1) habitable room window per dwelling facing that area.
- g) Low intensity lighting (eg. bollard lighting) shall be provided to all shared pedestrian paths, parking areas and building entries.
- h) Garbage or recycling areas, mail boxes and external storage facilities shall be sited and designed for functionality, attractive visual appearance and efficient and convenient use.
- i) Where agreed to by public utility service providers, services shall be co-ordinated in common trenching in order to minimise construction costs for underground services.
- j) Each dwelling shall be provided with direct and convenient pedestrian access to a public road.
- k) Where there is no direct pedestrian access from a dwelling's private outdoor open space area to the public roadway then the development shall be provided with a common garbage storage area readily accessible from within the site and serviceable from the adjoining road.
- l) The garbage storage area shall be designed so as to conceal its contents from view of the adjacent public space and/or other properties. It shall be provided with a water tap for wash down purposes and drained to connect to the sewer.
- m) Individual mail boxes shall be located close to each ground floor dwelling entry, or a mail box structure located close to the major pedestrian entry to the site complying with the requirements of Australia Post.
- n) Open air clothes drying areas shall be provided for each dwelling with an aspect ranging between direct east to direct west (via north). The drying areas shall be located and/or screened such that they will not be visible from a street or public place. Each drying area shall comprise a minimum of 15.0 lineal metres of hanging line
- o) All services – reticulated water, sewerage, electricity and telecommunications (and natural gas where available) shall be installed to meet the requirements of the relevant service provider.

## Appendix A

# Photographic Review

This Annexure provides a series of photographs of various local residential developments. A brief commentary is provided for each as to how well the design element photographed responds to the provisions of the chapter. The Annexure is intended as a guide only to designers in preparing designs for residential projects.

**PHOTO 1**

Terrace housing remains a sound design option for higher density inner city locations. Fencing to the street, landscaping to the street frontage, blade walls separating verandahs of adjoining units and the use of various colours/textures in external finishes contributes to a development which provides a strong edge to the street yet a sense of individuality for each residence.

**PHOTO 2**

This detached dwelling within a multi-unit dwelling development utilizes the roof space to achieve a reduction in the bulk and scale of the building. Appropriate scale plantings and fencing successfully separates the private domain from the street yet retains a strong pedestrian entry and street address for the dwelling.

**PHOTO 3**

Good landscape design and execution is essential to the success of a project. The bulk and scale of this building is reduced by the use of differing entry/verandah treatments for each dwelling, use of various colours, materials and finishes and triple gable roof which enables the mass of the roof to be broken down.

**PHOTO 4**

The garages of this dual occupancy have been separated in an attempt to reduce their dominance to the street..



**PHOTO 5**

This 1.8m high cream coloured sheet metal fence adds little to the streetscape as it dominates the corner lot. The location of the fence on top of the retaining wall clearly shows how the amenity of the downhill dwelling may be affected in terms of overshadowing and obstruction of breezes and visually 'crowding' the dwelling from this side.

**PHOTO 6**

A good example of a single detached dwelling. The roof design and the well articulated external walls provide light and shade with a resulting building that adds interest to the street.

**PHOTO 7**

Triple fronted garages are not supported as they dominate the street elevation of the dwelling and require expansive impervious driveway areas.

**PHOTO 8**

This dual occupancy is a mirror reversed design. The centralised garages and large driveway surface dominate the street elevation.

**PHOTO 9**

This detached dual occupancy has a poor street address. Double garage and wide plain concrete driveway dominate. 'colorbond' fence direct on the street boundary is visually obtrusive and conceals the pedestrian entry to the building.

**PHOTO 10**

This multi-dwelling development contains 4 detached units. It successfully addresses the street while at the same time reducing direct views to the units at the rear. The incorporation of larger scale plantings would result in an improved outcome.

**PHOTOS 11 & 12**

Good landscape design and execution contribute significantly to the amenity and visual quality of a development. The use of contrasting colours and textures in driveway pavements also helps to give some visual interest to these often expansive surfaces.



**PHOTOS 13 & 14**

This multi-unit housing development at Warners Bay uses simple building design highlighted by variations in balcony/portico treatments at the street elevation. Attention to landscaping has paid off and provides a high quality presentation to the street.

**PHOTO 15**

The hard edge created at the junction of driveways and fences should be avoided by the establishment of landscaping. Hedge planting and widened landscape blisters along a fenceline can greatly improve the visual amenity of these communal areas within a development.

**PHOTO 16**

Larger scale plantings within private courtyard spaces are encouraged. These plantings will provide shade and privacy and should be sympathetic to the scale of buildings within the development.



**PHOTOS 17 & 18**

This project demonstrates how successful an appropriate scale and density of landscaping can be in screening private courtyards and balconies from the street and reducing the visual impact of taller buildings. The driveway treatment provides variation in colour and texture to create visual interest to the development.

**PHOTOS 19 & 20**

This design responds well to a sloping site. Located in an area comprising predominantly small single storey workers cottages the scale and form of the development at the street is sympathetic to surrounding development. The two storey dwellings are only fully appreciated at the driveway entrance and the internal driveway and open space areas at the rear.



**PHOTO 21**

This communal open space area is small but does have good solar access and landscaping making it suitable for outdoor relaxation.



**PHOTO 22**

First floor balconies designed for privacy. Contrasting materials/finishes provided to the driveway areas together with landscaping and timber balcony enclosures makes this an attractive space.



**PHOTO 23 & 24**

This multi-unit housing project also makes good use of a sloping site. Presenting as single storey from the street, the landscaping hides the courtyard areas located below the level of the pedestrian footpath within the building line setback.







**PHOTOS 25 and 26**

Fencing to the street boundary should be consistent with the architecture of the dwellings and make a positive contribution to the streetscape.

**PHOTOS 27 & 28**

These multi dwelling housing developments are located in 'heritage conservation areas'. They are simple in architecture and have a scale consistent with the predominantly small cottages surrounding them.



**PHOTO 29**

This first floor addition has been constructed within the roof space of the existing dwelling and successfully contains the bulk and scale of the building.

**PHOTO 30**

This street facing unit in a development of three units sits within an older streetscape comprising small weatherboard and brick cottages. This design works well in that the dwelling addressing the street has a scale and configuration which is sympathetic to the surrounding development with the garage to the rear unit appearing as a typical detached backyard garage common to the era of the existing older residential development.

**PHOTOS 31 and 32**

This corner unit in a development of three units has a poor relationship to the street in three regards:

1. The floor level of the unit sits well below the level of the footpath making the roof the dominant element of the building.
2. The dwelling has no clearly distinguishable pedestrian entrance visible to the street with the garage door dominating.
3. The use of sheet metal fencing to enclose private open space is inappropriate although the landscaping, as it has matured, has been fairly effective in screening the fencing.



**PHOTO 33**

This textured pavement combined with dense plantings along the fenceline/driveway edge and small pockets of landscaping adjacent to the units themselves is sufficient to create a pleasant visual approach to these attached dwellings.

**PHOTO 34**

These very deep lots present a challenge to the designer. Long 'gun barrel' driveways are undesirable and should be avoided by positioning of buildings, provision of larger landscape blisters on either side of the driveway, and variation to driveway pavement finishes.

**PHOTO 35**

Private open space can be located within the building line setback provided it is appropriately fenced. This corner dual occupancy development works particularly well because existing trees have been retained and incorporated into the final landscape design.

**PHOTO 36**

This development is poor on a number of fronts:

1. Garages are placed forward with pedestrian entry to the buildings too deeply recessed and not readily distinguishable from the street.
2. Garages occupy well in excess of 50% of the frontage of the building and dominate the street elevation.
3. Inadequate landscaping results in a 'hard'





**PHOTO 37**

Another example of poor presentation. This development is accessed over a wide section of road reserve. Bad unit orientation, courtyard positioning, fencing, bland driveway treatment and lack of appropriate landscaping have resulted in a development with extremely poor street presentation.



**PHOTO 38**

What could have been a reasonable design outcome for this multi-dwelling development in a heritage conservation area has been severely compromised by establishing the floor level of the new development too low in relation to the adjacent heritage duplex.



**PHOTO 39**

The best landscape plan is put to waste if there is no intentional effort to maintaining these areas. The result is poor amenity for residents and a development which detracts from the streetscape.



**PHOTO 40**

This multi-dwelling development adjacent to the flood plain has been deliberately elevated to achieve flood free floor levels. In this case it is critical that the scale of plantings be suitable to provide privacy to the private decks and to soften the development. Other short term screening to the decks would have been good until landscaping matures.



**PHOTO 41**

Poor planning has resulted in hot water services being located directly adjacent main pedestrian entry points in this multi-dwelling development. A better result would have seen the HWS units located elsewhere and suitably screened.

**PHOTO 42**

Low scale fencing that defines private space, clearly defined pedestrian entries addressing the street, appropriate scale tree planting and variations in colour, texture and materials combine to make this development a relatively successful addition to an older street.

**PHOTOS 43 & 44**

This inner suburban townhouse development addresses 2 streets.

The units to the minor street (43) show good articulation in walls which provide depth and shadow to external elevations. Building height is appropriate with well designed fencing giving good definition to private open space.



The buildings to the main street frontage appear bland and bulky largely due to a lack of variety in colours, materials and finishes.



### PHOTOS 45, 46 & 47

This medium density housing development comprises around 20 units and is located on a corner lot.

The buildings respond sensitively to the site by adopting bearers and joist construction – this method of construction results in less bulk earthworks.

The visitor car parking area is located central to the site where it is accessible to all dwellings however additional landscaping would reduce the visual impact of driveway surfaces.

Although a very uniform colour scheme has been adopted, there is good articulation in external walls and roof shapes to create shadow and depth and visual interest to the development.

Fencing design integrates well with the design of the buildings and is of a scale which does not dominate the buildings or street.

Corner units, on the whole address both streets well with 'wrap-around' verandahs and large windows to both streets at ground level. First floor elevations could have demonstrated improved relationship to ground floor elements.



## Appendix B

# Domestic Stormwater Management

### *Performance Criteria:*

The objectives of this chapter may be achieved by compliance with the following criteria:

- (a) **Retention capacity.** For each new dwelling development, the storm water retention capacity is to be in accordance with the BASIX requirements in regard to the designated roof area to be employed for catchment. This means the required roof area catchment shall be adequately served by sufficient downpipes directing flows to the tank and equally sufficient discharge via overflow lines.
- (b) **Location of feed lines.** All feed storm water lines shall be of 100mm sewer grade PVC laid wherever possible in the same trench as the sewer lines, (refer *fig. 4*). PVC pipes and components shall be handled and joined in accordance with AS/NZS 2032:2006

The location of the storm water line in the trench shall be above and offset from the sewer line, (refer *fig 4*). Where storm water lines are laid in specific trenches, the trenches shall be located away from the foundation/s of the building/s Storm water lines shall have a minimum of 300mm ground cover.

The trench shall be backfilled around the storm water line with the equivalent aggregate used to encase the sewer line. Storm water lines shall be covered with identification taping

The configuration of the charged stormwater line shall be such that the initial flow into the line is directed to the lowest flush point, (refer *figs.1&3*)

Charged storm water lines shall be laid so that a flush point is provided at finished ground level at the lowest point of the charged line. This flush point is required in addition to any first flush provided in the lines directed to the tank. The purpose of the flush point is to enable simple access to the charged line by the property owner to facilitate periodic draining of the charged line so as to avoid accumulative contamination of the charged line/s. Ideally the flush point should be located where discharge can disperse onto grassed area , gardens or rubble pit. The flush point is to be provided with permanent signage to indicate the purpose of the flush point. (refer *fig 1*)

- (c) **Rain water tanks.** On-site rain water tanks shall be constructed of an approved material. Preference should orientate toward lighter colours for the exterior of the tank where the tank is located above ground. All exposed PVC storm water lines shall be painted with a U.V resistant paint. The tank shall be located so as



not to compromise fire separation of buildings or access to the exterior of buildings.

**Sub surface detention systems are not acceptable as a method of rain water storage for the purpose of non potable domestic use. This means on site storm water *detention* systems are not to be used for the purpose of BASIX compliance unless the installation of the underground detention is specifically designed as on-site detention and subsequently approved by Council.**

Above ground tank installation should be the preferred method of rain water storage and shall be provided with an adequate reinforced concrete slab for support or a base in accordance with the tank manufacturer's recommendation.

Piering below the slab will depend upon site conditions, and may be required.

The tank manufacturer's recommendations are to be followed where a substrate material is required between the underside of the tank and the concrete slab.

Bases for supporting tanks shall provide adequate provision to disperse water away from the building and avoid accumulated moisture build up around the tank area.

**Underground tank installation is not acceptable where sufficient fall from the tank overflow to the street or inter-allotment drainage (IAD) infrastructure is not achievable.**

The minimum gradient (fall) from the tank overflow to the discharge point shall be 1:100 measured at the invert at the (underground) tank overflow and the invert of the discharge point. The overflow from (above ground) tanks shall achieve the same fall of 1:100.

Where overflow lines serve underground tanks, backflow prevention devices are to be provided within the overflow line to deny the re entry of flood water and vermin. (refer *fig 7*)

- (d) ***Configuration of storm water lines.*** Storm water lines shall be laid in a configuration that directs the initial flow to the lowest discharge point. All lines shall be laid with fall to the lowest (flush) point.

Storm water lines laid that are not level or with fall to the flush point will not be acceptable (refer *fig 5*).

The overflow line should be of sufficient capacity to permit discharge without overflow from the tank itself occurring.

Storm water management plans shall be prepared by the applicant to be lodged with the Development Application. The storm water management plan shall consist of the following:

- (i) RL's of the kerb, tank location and flush point.
  - (ii) A site plan depicting the proposed location of the storm water lines, the location of the flush point and the proposed location of the rain water tank. The rain water tank will be clearly marked as in-ground, above ground, or erected on a tank stand. The tank location should also indicate the proposed location of the weather-proof GPO (general power outlet) and pump.
- (e) **Storm water lines over Council's nature strip.** Storm water lines laid across the Council nature strip shall be 100mm sewer grade PVC and achieve 300mm cover where possible. Where the line approaches the kerb, a 15 deg fitting shall be provided to enable the line to maintain the required coverage and angle up towards the kerb outlet fitting. The kerb outlet fitting shall be a pre-cast alloy or aluminium fitting with the rear (footpath side) of the fitting adequately concreted around the connection. (refer *fig 6*). The kerb fitting should be either cut as low into the kerb as possible to provide maximum concrete cover, or neatly flush with the top of the kerb with no concrete cover.
- (f) **Storm water generated from hardstand areas.** Storm water that is generated from overland flow and hardstand areas such as driveways, shall be directed to the tank overflow line to discharge to the street, rubble drain or IAD pit as applicable. This storm water drainage is acceptable in 90mm PVC but must not inter-connect with any line directed to the rain water storage. This means that any overland flows intercepted by grates, spoon drains and the like must discharge directly through overflow lines and not be permitted to enter the tank storage. It is recommended that this line be independent of all storm water lines interconnected to the tank feed/discharge.
- (g) **Mosquitoes.** Adequate provision shall be made to ensure all stored rainwater in charged lines and the tank/s is protected from mosquito infestation and subsequent breeding.

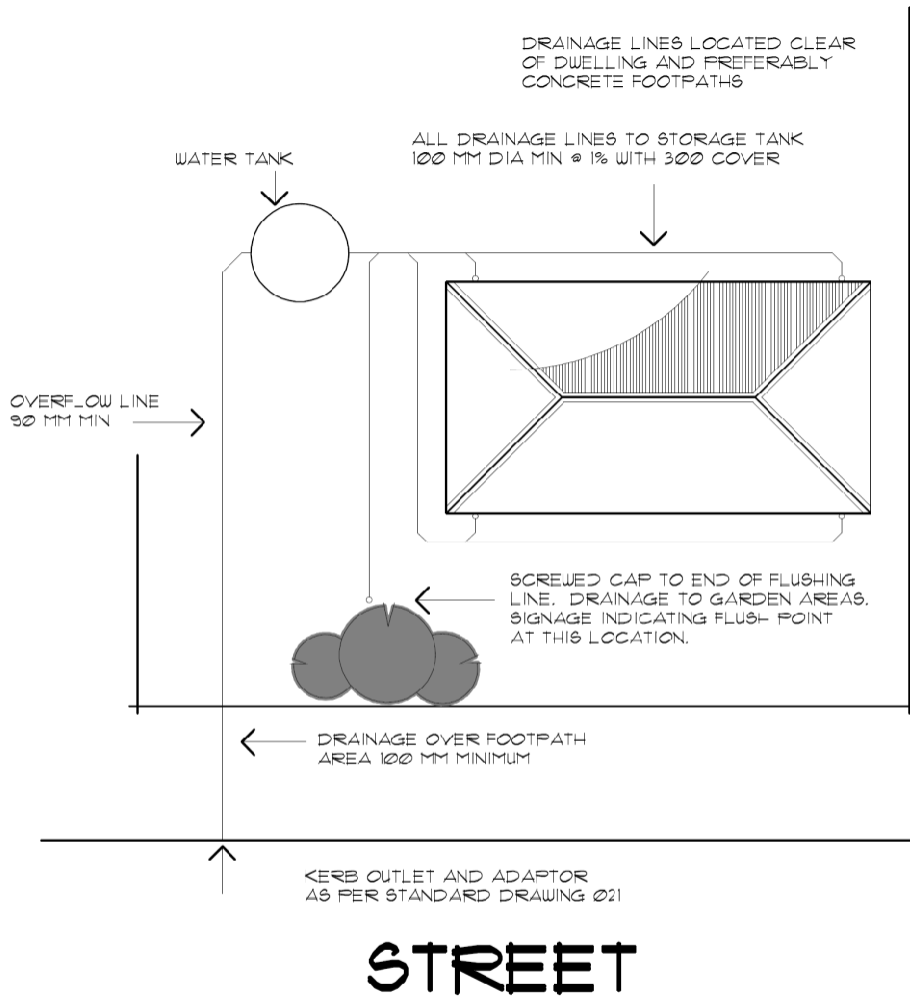
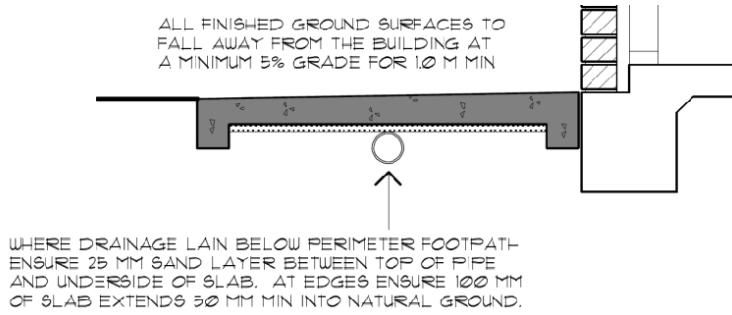
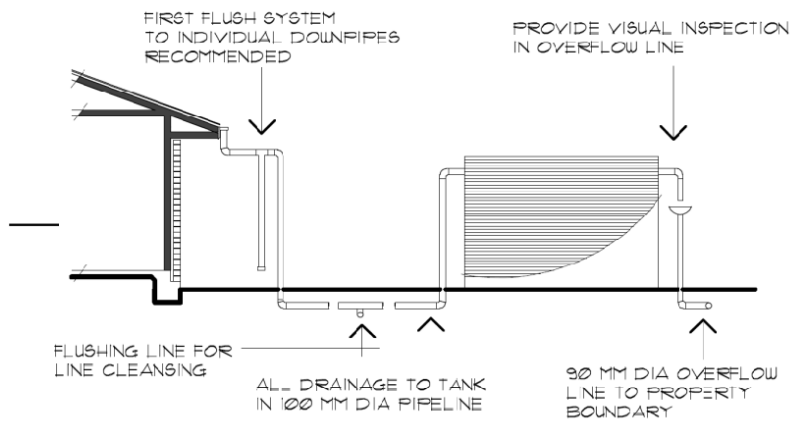


FIGURE 1. PREFERRED DRAINAGE LOCATION PIPELINE LOCATED CLEAR OF PATHWAYS

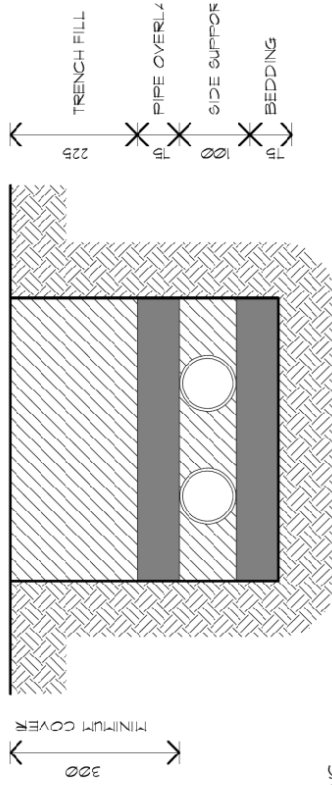




**FIGURE 2. SECTION SHOWING LOCATION OF DRAINAGE BELOW CONCRETE PATH**



**FIGURE 3. DRAINAGE SECTION DOWNPIPE TO WATER TANK OVERFLOW**



THESE DETAILS ARE FOR USE WITH UPVC DRAINAGE PIPE INSTALLED IN ACCORDANCE WITH AS 2037-2006. 14 MM CRUSHED ROCK GRAVEL OR SAND IS TO BE USED FOR BEDDING, SIDE SUPPORT AND OVERLAY MATERIAL. ALTERNATIVE MATERIAL: 1:4 CEMENT MORTAR REUSE EXCAVATED MATERIAL FOR TRENCH FILL.



FIGURE X: SINGLE STORMWATER TRENCH

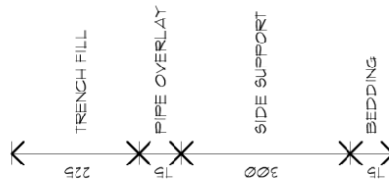
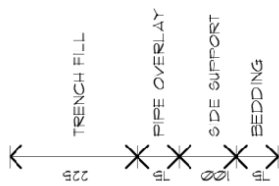


FIGURE X: SHARED TRENCH: STORMWATER PIPE SEPARATED FROM SEWER DRAINAGE.

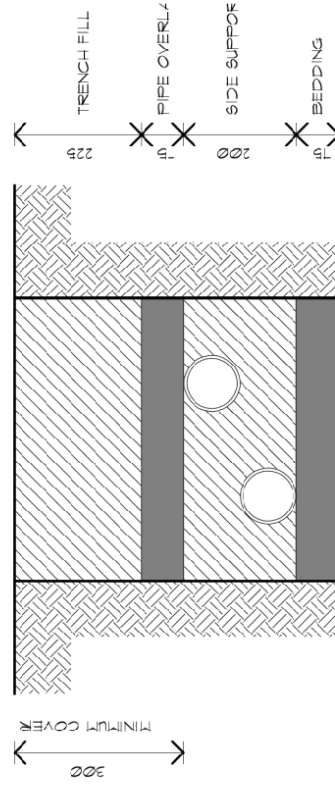


FIGURE X: SHARED TRENCH: STORMWATER PIPE OFFSET FROM SEWER DRAINAGE.

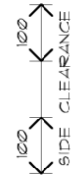
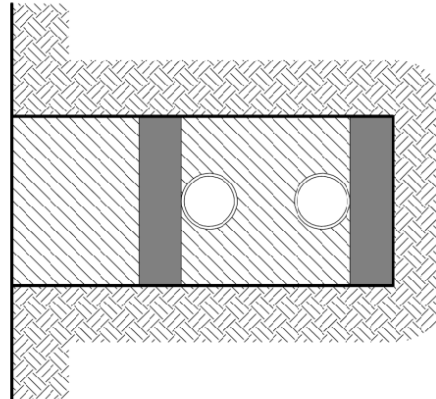
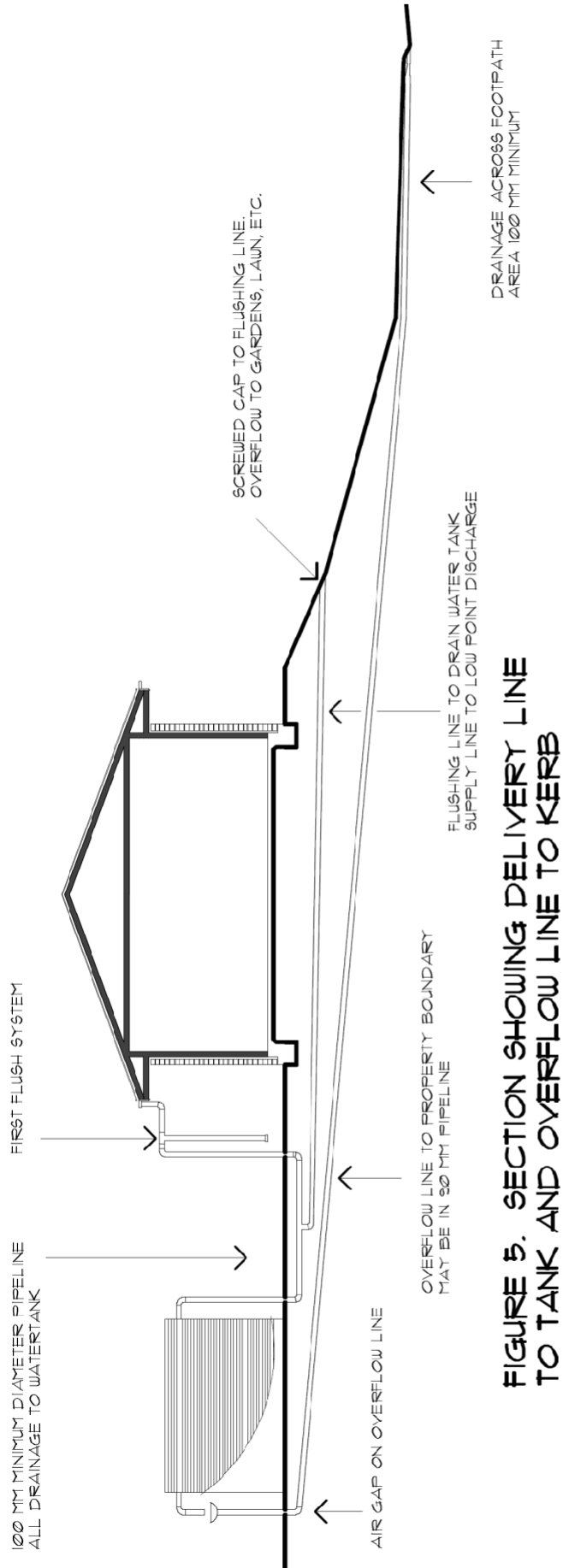


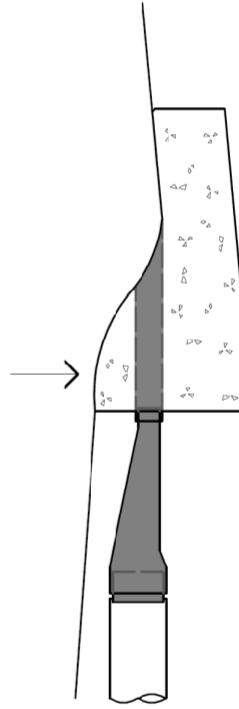
FIGURE X: SHARED TRENCH: STORMWATER PIPE DIRECTLY ABOVE SEWER DRAINAGE

**FIGURE 4. SECTION SHOWING TRENCH CONSTRUCTION**



**FIGURE 5. SECTION SHOWING DELIVERY LINE TO TANK AND OVERFLOW LINE TO KERB**

KERB CONNECTION IN ACCORDANCE WITH S0021. MINIMUM 100 MM UPVC PIPEWORK IN FOOTPATH AREA. KERB STORMWATER OUTLET 'TECPRO TYPE' OR APPROVED EQUIVALENT 150 X 50 X 4 X 350 MM GAL MILD STEEL, HOT DIPPED GALVANISED.



**FIGURE 6. SECTION SHOWING KERB CONNECTION**



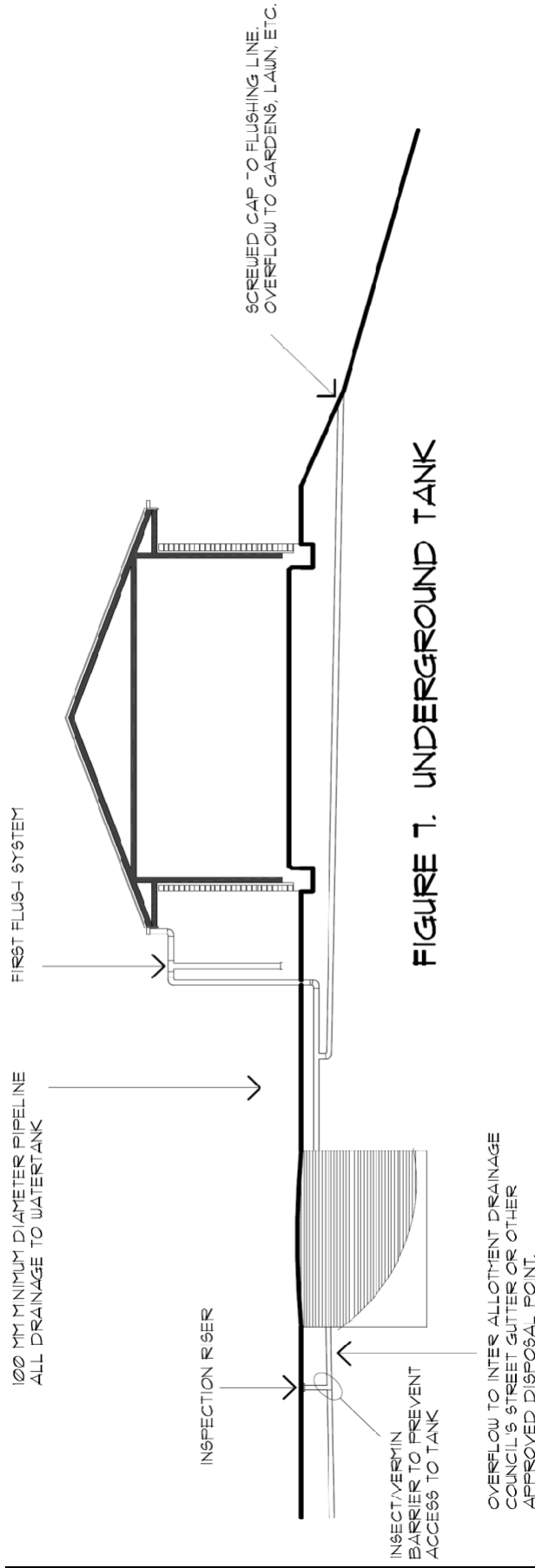


FIGURE 7. UNDERGROUND TANK

## C.9 – Sex Services Premises & Restricted Premises

### 1. INTRODUCTION

#### 1.1 Preamble

The legalisation of brothels under the *Disorderly Houses Amendment Act 1985* required Councils to develop strategies for the regulation of brothels (now defined as sex services premises) and other commercial operations associated with the sex industry.

#### 1.2 Application

Any land where sex services premises and restricted premises are permissible with consent in the Maitland LEP 2011.

This chapter does not apply to home occupations (sex services). This development type is prohibited on all land to which the Maitland LEP 2011 applies.

#### 1.3 Purpose

- To provide development guidelines for the development of restricted premises and sex services premises.
- Outlines appropriate health standards and occupational safety requirements for equipping and managing restricted premises and brothels.
- Details Council's powers to close unauthorised sex services premises under the provisions of the *Environmental Planning and Assessment Act, 1979* and to close sex services premises which cause disturbance in the neighbourhood under the provision of the *Disorderly Houses Amendment Act, 1995*.

#### 1.4 Objectives

- a) To nominate location requirements and development standards for sex services premises and restricted premises which reflect broad community attitudes and expectations.
- b) To provide appropriate guidelines for sex services premises and restricted premises which will ensure that such are at a reasonable distance from residential occupancies and other nominated sensitive land uses, and will not cause disturbance or otherwise have a detrimental impact on the amenity of the surrounding neighbourhood.

- c) To provide appropriate guidelines which will restrict the scale of sex services premises and restricted premises, as well as prevent their concentration in close proximity to one another.
- d) To identify appropriate health and occupational safety requirements relating to the equipping and management of sex services premises and other sex industry establishments.
- e) To safeguard public health and safety for sex industry workers, and their clients by providing appropriate health and hygiene standards and safety guidelines for premises.

## 2. REGULATORY REQUIREMENTS AND PROCEDURES

### 2.1 Council Consent

A Development Application is required to be submitted and approved by Council before any premises can be lawfully used for the purpose of restricted premises or a sex services premises. Any consent granted under the *Environmental Planning and Assessment Act, 1979* would be subject to compliance with appropriate conditions relating to those operational aspects over which Council has control.

Council's responsibilities are primarily concerned with land use planning under the *Environmental Planning and Assessment Act 1979*. Public health complaints in relation to the operation of sex services premises are the responsibility of the NSW Department of Health. Occupational health and safety issues are matters for the WorkCover Authority. The NSW Department of Health is responsible for safe health practices in the workplaces and ensuring safe sex practices, dealing with public health complaints and advising sex workers working with sexually transmissible conditions.

However, as a consent authority, Council may undertake inspections of sex industry premises so as to determine compliance with NSW Public Health Act and Regulations, Protection of the Environment Operations Act and conditions of development consent made in accordance with this Policy.

The Australian Federal Police and the Department of Immigration deal with issues of illegal immigrant sex workers.

Intending applicants should discuss their proposals with Council's Service Planning and Regulation Group prior to lodging a Development Application.

### 2.2 Development Application Requirements

All applications for premises to be used as a restricted premises or sex services premises, including the change of use of an existing premises to a restricted premises or sex services premises, are to include the following documentation and details:



- a) A site plan and a location plan drawn to a scale of 1:500 showing the proximity of the subject site to nearby residential occupancies, as well as to churches, hospitals, schools, community facilities and any other place where children or young people are likely to regularly congregate, including railway stations and major bus stops.

***(Note: Clause 7.5 in the Maitland LEP 2011 restricts the location of sex services premises).***

- b) A floor plan drawn to scale of 1:100 showing room layout and dimensions, partitioning, location of windows and doors including all entrances to and exits from the building. The floor plan should also show the location of showers, basins and waste disposal facilities. Any proposed internal or external alterations to the premises are to be clearly indicated on the plan. The proposed use of each room is to be nominated, with application for sex services premises to specifically identify all rooms proposed to be used for the conduct of acts of prostitution.
- c) Location, number and layout of car parking (*see chapter C.1: Vehicular Access and Parking for requirements*).
- d) Details of compliance with the Disability Discrimination Act 1992 and the Health and Safety Guidelines for Brothels in NSW, distributed by NSW Health Department and WorkCover NSW.
- e) A Statement of Environmental Effects which provides the following details:
- i) Comprehensive description of the proposed development;
  - ii) Details of the present or previous use of the subject premises;
  - iii) Details of existing uses on adjoining properties and any other uses established on the subject property; and
  - iv) Operational details including name of occupier of the premises or contact person, number of employees, hours and days of operation, number of rooms in the premises.
- f) Details of proposed signage indicating the size, form number, illumination position of any proposed business identification sign, advertisement or other promotional device to be erected or displayed on the subject premises, and including details of any existing and proposed external lighting.

### 2.3 Notification

Applications will be advertised/notified in accordance with Part A of this DCP prior to any decision being made. Written representations or objections will be taken into account in Council's determination of an application.

## 2.4 Referral

Development Applications to establish a restricted premises or sex services premises will also be referred to other relevant Government agencies for comment where considered appropriate.

## 3. DEVELOPMENT GUIDELINES

### 3.1 Location

***Note: Clause 7.5 in the Maitland LEP 2011 restricts the location of sex services premises in certain locations.***

- a) A sex services premises or restricted premises is not to be located in a position which may detract from the amenity of residential occupancies and, in this regard, the entrance or exit doorway\* to or from any such premises is not to be closer than 150 metres from the entrance to premises used as a dwelling within a Residential zone;
- b) The entrance or exit doorway\* to or from a sex services premises or restricted premises is not to be closer than 150 metres from a place of worship, child care centre, community centre, community facility, educational establishment, entertainment facility, hospital, recreation area or recreation facility or any place where children or young people are likely to regularly congregate, including railway stations or major bus stops;
- c) In order to avoid a concentration of sex industry related land uses in the one location an entrance or exit doorway\* to or from a sex services premises or restricted premises is not to be closer than 150 metres from the entrance doorway to any other sex services premises, or restricted premises;
- d) A sex services premises is not to be located within a remote area or an area in which public transport or support services (eg Police, Ambulance etc) are not conveniently to hand;

*Note: \*For the purposes of these Guidelines, exit doorways from premises exclude fire exits provided only for use in an emergency and any distances referred to are to be measured along the most direct established pedestrian route between the respective premises.*

### 3.2 Scale and Character

- a) A sex services premises is to be restricted in total floor space such that it is to provide not more than 5 rooms in which acts of prostitution are to take place;

- b) The use of a premises as a sexual entertainment establishment is to be restricted in nett floor area to an area no greater than 200 square metres;
- c) No portion of any premises not approved for use as a sex services premises is to be used for the conduct of acts of prostitution. Prostitution within an approved sex services premises is to be confined to rooms and areas so nominated on the submitted plans which are the subject of Council's consent;
- d) Any new building or refurbishment of an existing building to function as a restricted premises or a sex services premises is to be designed so as to be compatible with the built form of adjoining premises and integrated into the streetscape;
- e) The entrance to a restricted premises or a sex services premises is to be discreet, safe and unobtrusive with any signage limited to a single business and/or property identification sign only, of modest dimensions, devoid of any sexually explicit or suggestive material, and any distinctive external lighting provided in respect of a brothel is to be limited to a single, low wattage globe;
- f) A sex services premises or sexual entertainment establishment is to be provided with adequate reception area/waiting room facilities sufficient to discourage clients or prospective clients from loitering outside the premises;
- g) Alcoholic liquor is under no circumstances to be provided or offered for sale on premises used as a sex services premises or other sex industry establishment unless such premises are appropriately licensed under the Liquor Act.
- h) Sex industry establishments shall not display sex workers or sex related products from windows, the front door or outside of their premises. However, premises are to minimise nuisance to neighbours by clearly numbering the building, with the number being clearly visible from the street. The building is not to be of a colour that draws undue attention to the premises.
- i) Sex services premises or restricted premises shall not be located in a building that contains a dwelling.
- j) Sex services premises and restricted premises shall be generally small scale and not clustered so that they integrate with adjoining land uses.

### 3.3 Security



The operator of a sexual entertainment establishment is to provide a security patrol in the vicinity of the premises to ensure the proper conduct of patrons and the safety of staff leaving the premises.

All sex services premises are to have an alarm or intercom in each room that is used for acts of prostitution. These alarms are to be connected back to a central base (such as reception) that is to be monitored at all times. This is to ensure the safety of both clients and sex workers.

Casual surveillance of exits and entries is essential to ensure the safety of all workers and visitors to such premises. Accordingly, entrances and exits of sex services premises should be designed to facilitate the privacy of workers and clients, without compromising personal safety (such as isolated back lanes and poorly lit areas). Adequate lighting of entrances and exits is essential to ensure the safety of sex workers and clients who are leaving and arriving at the premises. Any landscaping that is proposed should not obstruct the visibility of entrances and exits from public areas.

#### **4. LIMITS ON DEVELOPMENT CONSENT**

Council may issue a development consent that is not burdened with a time limit or “sunset clause” for the operation of the business activity. This will be granted if all the issues relating to the location, establishment and management of the sex services premises or restricted premises are satisfactorily addressed in the development application and conditions of development consent.

Council retains the option to issue a development consent that has a limited operational period. If ample community concern is raised in regard to the establishment of a sex services premises or other sex industry business, Council may stipulate a time-limited development consent. A time-limited development consent may also be imposed if there are insufficient operation or management details included with the development application.

#### **5. APPLICATION TO CLOSE BROTHELS**

Section 17 of the *Disorderly Houses Amendment Act 1995* allows Council to apply to the Land and Environment Court to close a brothel which is having a significant detrimental effect on the local community. Residents or occupiers may make complaints to the Council, which in turn may take action in the Land and Environment Court to have the brothel closed.

This section of the Act specifies the grounds on which such an application may be made and operates in addition to existing powers of Council to serve notice upon premises operating without consent, or outside existing conditions of development consent.

## 6. HEALTH AND BUILDING REQUIREMENTS

### 6.1 Building Standards

- a) Sex services premises, sexual aid establishments and sexual entertainment establishments are to be designed and constructed in accordance with the relevant requirements of the Building Code of Australia;
- b) Where practicable or where specifically required under the provisions of the Building Code of Australia, convenient access to premises is to be provided for disabled persons;
- c) Sexual entertainment establishments involving live shows or the exhibition of films are to satisfy the constructional and fire safety standards for a place of public entertainment under the provisions of the Building Code of Australia.
- d) Access for people with a disability should be provided in accordance with all relevant legislation, including AS 1428 – Design for Access and Mobility and the Disability Discrimination Act 1992. Major entrances to premises to which the public is entitled to enter need to be designed and constructed to provide equitable treatment of users and meet minimum standards of grade, doorway width and connectivity.

### 6.2 Health Standards

*Full details of Council's health requirements are specified in Annexure A. These requirements will be applied as conditions of consent where applicable or included as advice with all development consents issued and the operators of brothel premises will need to demonstrate satisfactory compliance with these requirements.*

## 7.1 Definitions

The terms used in these guidelines are as defined in the Maitland LEP 2011 or legislation. In addition the following definitions apply:

**Contaminated Wastes** include any substance or item that has become or may become contaminated by body fluids.

**Escort Agency** means premises where activities are undertaken to introduce a person to a client with a view to making a contract to provide escort services, which may include sexual services, for a fee or reward. No act of prostitution or sexual contact takes place on the premises.

**Nett Floor Area (N.F.A)** means the whole of the lettable floor area of a building, where the area of each floor is taken to be the floor area within the internal faces of the outside walls, excluding stairs, amenities, lifts, corridors and other public areas, but including any stock storage area.

**Sex Aid Establishment** means any premises used solely or **principally** for the purpose of offering or exposing for sale by wholesale, mail order or retail all or any of the following items:

- a) publications that are classified as restricted publications pursuant to any Commonwealth or State Government Act, Regulation or classification;
- b) materials, compounds, preparations, or devices which are used or intended to be used in or in connection with sexual activity;

and includes sex shops, sex aid shops, adult sex bookshops, adult bookshops, and the like.

**Sexual Entertainment Establishment** means any premises used solely or principally for the purpose of presenting entertainment of an overly erotic nature for fee or reward, including peep shows, strip tease shows, live sex shows, pornographic movies and the like.

**Spa Bath** means a domestic type bath fitted with a water recirculation system and/or an air injection system. A water heater may be incorporated in the system, but a water filter is not required.



# Appendix A

## Health Standards for Brothels

### 1 Cleanliness

The premises must be kept in a clean condition and good state of repair at all times. The regular use of a contract cleaning service is recommended, with spot cleaning carried out by staff. Particular attention must be paid to the following areas as set out below:

#### 1.1 Showers, baths and toilets

These fixtures are subject to mould growth and have the potential to harbor and spread fungi, particularly tinea. This problem is exacerbated when ventilation is inadequate. Regular physical cleaning and the use of hospital grade disinfectants are required to control mould problems. The proprietor must ensure that baths and showers are cleaned and disinfected after each use, preferably with a hypochlorite based disinfectant. Liquid soap and single use towels shall be provided at all wash hand basins required in the premises. A documented cleaning program is to be provided for these areas.

#### 1.2 Linen

The proprietor must provide:

- clean linen or a clean cover; and
- clean towels for the use of each client. All linen, including towelling which comes into contact with clients shall be changed immediately after each use.

#### 1.3 Warm Water Systems

Any thermostatic mixing valve installed on the premises, to provide water at a pre-set temperature is to be registered with Council's Microbial Control Program.

#### 1.4 Cleaning of Linen and Laundry Facilities

It is recommended that proprietors use private contractors to launder towels, sheets, etc. When proprietors do carry out laundering on the premises, commercial/industrial equipment must be used. The following steps will assist in minimizing health risks associated with linen.

- Two receptacles must be provided for the separate storage of clean linen and used linen.
- Linen should be washed by category using laundry detergent in a hot water wash that has a water temperature of 70 degrees Celsius.

- All linen needs to be thoroughly dried.

## **2 Ventilation and Lighting**

The premises are to be ventilated in accordance with the requirements of the Building Code of Australia and Council's Ventilation Code.

The premises are to be provided with adequate lighting in accordance with Australian Standard AS 1680.

## **3 Fire Safety**

All brothels must be fitted with the necessary fire safety equipment and services which are required for Class 5 buildings (an office used for professional or commercial purposes) under the Building Code of Australia including, but not limited to emergency lighting, exit signs, fire extinguishers, door furniture, etc.

## **4 Noise**

The use of the premises shall not to give rise to:

- A sound level at any point on the boundary of the site greater than the background levels specified in Australian Standard 1055, "Acoustic Description and Measurement of Environmental Noise"; or
- An "offensive noise" as defined in the POEO Act 1997; or
- The transmission of vibration to any place of different occupancy.

## **5 Bars and Food Preparation Areas**

All bars and food preparation areas must be constructed, fitted out and finished in compliance with Food Regulation 2001 and the National Food Premises Code. All work is to be carried out in accordance with Council requirements and further information is available from the Service Planning and Regulation Group. These areas will be subject to inspection in accordance with Council's adopted Food Surveillance Policy.

## **6 Adequate Sanitary Facilities**

Sanitary facilities are to be provided in accordance with the requirements of the Building Code of Australia, Part F. Separate toilet facilities are to be provided for staff.

Each room used or available for use for the conduct of acts of prostitution is to contain or have direct access to its own shower, sanitary facilities and wash hand basin facilities for the use of both sex workers and their clients. These facilities must be suitable for persons with disabilities

All required wash hand basins are to be provided with an adequate supply of potable water, at a temperature of at least 40 degrees Celsius, delivered through an approved

mixing device which can be adjusted to enable hands to be washed under hot running water. A supply of anti-bacterial liquid soap and single use towel are to be provided at the hand basin.

## **7 Contaminated Waste**

Contaminated wastes must be removed from the premises and disposed of by licensed waste contractors. Used condoms and any other contaminated wastes are to be double bagged in plastic and placed in a waste receptacle provided on the premises.

## **8 Spa Baths and Spa Pools**

Spa baths should be drained each day so they can be cleaned and refilled with fresh water. The temperature of the water in the bathing area of a spa pool should not be allowed to exceed 38 degrees Celsius..

Spa pools are to be provided with a system of automatic analysis and dosage control equipment that will maintain the level of disinfectant.

The guidelines for disinfecting public swimming and spa pools can be obtained from the Department of Health. Tests shall be done on every swimming or spa pool before use each day, and every four(4) hours when the pool or spa is in use. A log book of the pool or spa water quality must be kept by the proprietor and may be checked upon inspection by Council officers of Council or the NSW Department of Health.

For the purpose of this DCP, a “spa pool” is a pool fitted with a water recirculatory system and/or an air injection system and a water filter. A “spa bath” is a domestic type bath fitted with a water recirculation system and/or an air injection system. A water heater may be incorporated in the system, but a water filter is not required. Spa baths must be drained after each use so they can be cleaned and refilled with fresh water.

All swimming or spa pools must be disinfected by a method approved by the NSW Health department. Approved methods include:

- Chlorine;
- Bromine;
- Chlorination Ozone.

The proprietor must keep on the premises an accurate kit used for testing of pool water. The kit must be able to determine the concentration of:

- Free chlorine, total chlorine, and combined chlorine; or
- Total bromine; or
- Bacquacil; and
- pH; and



- Reserve alkalinity.

Swimming or spa pools must comply with the NSW Department of Health Public Swimming Pools and Spa Pools Guidelines.

A Health Code of Practice for Brothels has been recommended by the NSW Department of Health. An extract of the Department's Code of Practice is provided as an attachment to this policy for the information of those interested (Attachment 3).

**Note:** The Department's Health Code of Practice is a guideline only which is not itself part of Council's policy and is not the responsibility of Council to administer.

## 9 Inspections

Council may inspect the premises in particular the following areas:

- Swimming pool and spa and records of maintenance chlorination, etc;
- Thermostatic mixing valves and records of maintenance;
- Food preparation and bar areas;
- Cleaning program for food preparation areas, bar, showers, hand basins and sanitary facilities.

## Appendix B

# Extract From Health & Safety Guidelines For Brothels in NSW

*(-as prepared by NSW Department of Health.)*

### **1 Education of Workers and their Clients**

The proprietor must provide such information to sex workers in the brothel including information about safe sex and sexually transmissible diseases (STDs) as is necessary to enable the sex workers to perform their work in a manner that is safe and with minimum risk to health. This should include reasonable access by health educators from SWOP or the NSW Health Department.

The proprietor must provide written information about the transmission of STDs in a variety of languages at the brothel for clients.

If a sex worker has difficulty communicating in the English language, the proprietor must provide, or arrange for the provision of the information in a language with which the sex worker is familiar.

The proprietor must take reasonable steps to ensure that any information about STDs provided at the brothel for the benefit of clients or sex workers is medically accurate.

The proprietor must ensure that all new workers are well informed of the need to use condoms and water based lubricant and that ongoing education regarding safe sex practices is provided.

### **2 Provision, Storage and Handling of Condoms and Dams**

The practice of safe sex should be on the basis on which the brothel operates.

The proprietor must provide an adequate supply of condoms and water based lubricants free of charge. These must be easily accessible to the worker at the time of meeting the client or be freely available in every room. Condom vending machines are not permitted as a means of supply. A variety of condoms of different size and thickness should also be provided for use on the premises. Only condoms approved under Australian standards should be supplied. Sex workers should be permitted to use latex dams if they choose to do so.

Condoms and dams should be stored away from light and heat which may contribute to premature deterioration. All sex workers must wash hands thoroughly after disposal of condoms and dams.

Any equipment, sex toys, etc which have contact with another person's body fluids should be covered by a new condom for each partner. After each use the condom must be removed and the equipment disinfected with a solution of one part bleach to two parts water.

### **3 Working Conditions**

There must be no evidence of coercion to work to work as a prostitute, or inducement to practice unsafe sex.

Working conditions must be reasonable, and take into consideration the hours and days worked, the provision of adequate breaks between shift and sick leave.

The brothel must allow entry to authorised persons from Council (planning, health, building), the NSW Department of Health and SWOP.

### **4 Examination of Clients**

The examination of clients must not be seen as an alternative to, or lessening the need for observing safe sex practices. Before any sexual encounter each client should be examined by the worker to detect any visible evidence of STDs. Good lighting must be provided for such examinations. Any client with evidence of an STD should be referred for medical consultation.

### **5 Health of Sex Workers**

It is recommended that sex workers should be immunised against Hepatitis B. If a sex worker is not immune, a course of immunisation should be commenced as soon as possible.

It is also desirable that sex workers should attend a Sexual Health Service Family Planning Clinic or private doctor for sexual health tests as recommended by NSW Health Department guidelines.

Evidence of attendance for sexual health tests must not be used as an alternative to safe sex practices. Sexual health attendance certificates should not imply freedom from STD's nor should sexual health attendance certificates be shown to clients.

There should be no impediment to sex workers taking time off for health reasons.



## C.10 – Subdivision

### 1. INTRODUCTION

#### 1.1 Preamble

Suitable land available for subdivision is becoming increasingly limited within the Maitland Local Government Area. Land is a valuable and finite resource and, for the benefit of current and future residents, Council seeks to ensure that it is not wasted or damaged by ill-considered developments.

The potential for badly designed and constructed subdivisions to cause significant environmental damage is increasingly better understood by Council and by the community, and there is a greater community expectation that environmental issues will be properly addressed and managed. It is also becoming expected that subdivision proposals will have a net positive impact through repair of environmentally degraded areas, re-vegetation and responsible environmental management proposals.

Additionally, the amenity of future development on new lots can be significantly improved through proper consideration of physical and environmental conditions, including an increased emphasis on the principles of Ecologically Sustainable Development (ESD). In particular, Council is concerned that subdivisions do not cause adverse environmental impacts and, where possible, improve or repair existing environmental damage. Particular attention will therefore be paid to environmental issues such as retention of vegetation, re-vegetation, and water quality control, as well as design and sustainability issues such as solar access and energy efficiency.

#### 1.2 Application

This chapter applies principally to the design and construction of new subdivisions on all land to which the Maitland Local Environmental Plan 2011 applies.

Detailed Construction Certificate and Engineering Plan requirements, construction standards and Subdivision Certificate requirements are contained in Council's Manual of Engineering Standards.

There are other chapters within this DCP that also contain controls over subdivision design and development, such as Urban Release Areas and Heritage Conservation. These chapters should be reviewed in conjunction with these general guidelines.

Where no site-specific chapter or Locality Plan exists, Council may require that one is prepared prior to approving subdivisions, especially where the land is

subject to environmental constraints and/or more than one land parcel or ownership is involved.

### 1.3 Purpose

To promote a consistent and appropriate design standard for subdivisions by providing Council's requirements for designing subdivisions and the necessary information required to accompany development applications.

### 1.4 Objectives

- a) To promote the efficient use of an increasingly limited land resource in the City Maitland.
- b) To encourage innovation in subdivision design to create a strong sense of community, a pleasant living environment and reduce environmental impacts.
- c) To encourage an integrated approach to street pattern, lot layout and facility provision to create desirable urban environments and character.
- d) To ensure that the principles of Ecologically Sustainable Development (ESD) are applied to the design of subdivisions and subsequent housing.
- e) To ensure that subdivisions protect and enhance rural character and prevailing views in the City.
- f) To facilitate different subdivision forms and the use of different land title systems which may assist in minimising and managing environmental problems (eg the use of community title to manage areas requiring environmental repair or common drainage or effluent systems).
- g) To ensure that subdivisions and subsequent housing take account of physical constraints such as bushfire, flooding, landslip, and the like.
- h) To protect key cultural resources (places of environmental heritage value) from land use or management practices that may lead to their degradation or destruction.
- i) To protect and enhance the limited amounts of remnant/contiguous vegetation in the City.

## 2. **TITLE SYSTEMS FOR SUBDIVISION**

There are three main forms of subdivision and related land title in NSW, and the most appropriate form should be utilised depending upon the nature of the subdivision and any components or features which may require joint ownership and/or management.

### 2.1 Conventional or Torrens Title Subdivision

This is the traditional or "single lot" form of subdivision, common in many residential estates. It applies to both "Old System" and "Torrens Title" on freehold land. Any buildings and structures erected on the land effectively become part of the land by definition.

## 2.2 Strata Subdivision

Strata subdivision is defined as “subdivision” in the Act, and requires Council consent. Strata subdivision can subdivide buildings and land into separate lots capable of individual ownership. Courtyards, other open space areas and garages may be included as part of a strata title lot. Anything not forming part of a lot in the strata scheme becomes common property owned and managed by the “Owners Corporation”. The Corporation consists of representatives of the owners of the lots, and is responsible for the control and management of the common property (which can include the building itself in some cases) and for the keeping of financial records and other specified documents.

Council will have regard to relevant provisions of the Strata Schemes Act 1973 and the Strata Scheme Legislation Amendment Act 1999 when considering applications for strata subdivision.

## 2.3 Community Title Subdivision

Community Title is a relatively new form of title created under the Community Land Development Act 1989 and the Community Land Management Act 1989. Community title provides individual ownership of lots (with buildings and structures erected on the lots as in conventional subdivision) and a share in the association property. Association property is a lot in the scheme on which community facilities may be erected. Association property can include land for roads and driveways, swimming pools and other common facilities, common open space areas and common infrastructure facilities, such as water treatment plants and the like.

A multi-tiered structure is possible through Community, Precinct and Neighbourhood Associations, with developments able to be undertaken in stages.

Community Title subdivision can be particularly useful where individually owned lots are required, but where common property and/or facilities are desired or required by Council. An example of the latter may be where Council requires a watercourse in a rural residential scheme to be maintained and enhanced as part of the development proposal.

All Community Title development applications must include a Management Statement which sets out the rules and responsibilities for running of the scheme.

## 3. SUBDIVISION DESIGN PROCESS

All applications for subdivision must be accompanied by evidence of a thorough **Site Assessment**, addressing the physical characteristics of the subject land and



that land surrounding it which is likely to affect, or be affected by, its development. The site assessment should form the basis of the Statement of Environmental Effects (SEE) which must be submitted with every application, as required by the *Environmental Planning and Assessment Regulation 2000*. The information collected through site assessment is often best presented on a plan, accompanied where necessary by written information. However, written information alone, as part of the SEE, may be sufficient in some circumstances. The level of investigation required for a site assessment will vary depending upon the nature and size of the subdivision proposal and its location in the local government area. Pre-consultation with Development Assessment staff is essential.

Following the Site Assessment, the design of the subdivision can be undertaken to suit particular site needs. For detailed Construction Certificate and Engineering Plan requirements, construction standards and Subdivision Certificate requirements applicants must refer to Council's Manual of Engineering Standards

### 3.1 The Design Steps

To ensure that subdivision proposals address all relevant matters, the process for design should follow the basic steps of:

- a) Site analysis to identify all constraints and opportunities, both on-site and external to the site;
- b) Mapping, measuring or quantifying of constraints and opportunities; and
- c) Development of a subdivision design that properly considers and takes account of those constraints and opportunities.

Proper site analysis prior to subdivision design is essential. Council's approach to subdivision design is reflected in the objectives of this plan. The emphasis of these objectives is on achieving designs that are responsive to existing site conditions, which will have a positive environmental result, and which will create aesthetically pleasing and healthy living environments.

There is increasing emphasis on the need for subdivisions to be designed to allow maximum solar access and having regard to the principles of Ecologically Sustainable Development (ESD). A subdivision that is designed to allow good solar access to lots can result in considerable energy savings for the buildings subsequently erected upon them.

Similarly, a subdivision that is designed having regard to ESD principles will not only have less long-term adverse impact upon the environment, but is also less likely to require expensive end-of-line solutions to issues such as water quality, effluent disposal, flora and fauna management and the like.

## 4. DESIGN ELEMENTS

This section of the chapter contains Council's requirements for each of the Design Elements to be considered in planning a subdivision. These requirements will be applicable to almost all subdivision applications.

The Design Elements are broken down into three components:

- a) **Environmental Considerations (EC)** – pre-planning the subdivision design
- b) **Design Considerations (DC)** – subdivision design
- c) **Identity Components (IC)** – relating to gateway elements and the identification of the locality and its road systems through design and landscaping.

### EC.1 Flora and Fauna

*Objective:*

To protect remnant bushland, significant flora and fauna habitats and wildlife corridors from the impacts of subdivision and subsequent development, and to provide for the repair and enhancement of environmentally significant and/or degraded land.

*Design Principles:*

- a) Subdivision design will minimise the impact on vegetation of likely future development on the lots created, including clearing for dwelling and building sites, roads, access, fire prevention, provision of services and the like.
- b) Subdivision design will include linkages to other areas of vegetation, such as existing or proposed buffer zones and corridors on the same land, or on adjacent or adjoining land.
- c) Subdivision design will consider the potential to enhance vegetation in natural drainage lines, creek and river banks and the like.
- d) Subdivision design will consider the potential to repair and/or enhance natural systems such as watercourses and drainage lines, and any part of the land that is already degraded through vegetation loss, soil erosion and the like.

*Performance Criteria:*

#### General

- e) Areas of significant habitat must be protected.
- f) Design subdivision layout to avoid significant stands of vegetation. Where the subdivision proposal affects significant stands of vegetation, lot layout and lot size must take into account the need to retain the vegetation and

the impact of likely future development on the lots, including building envelopes, parking, access and other development requirements such as Asset Protection Zones.

- g) Retain existing natural drainage lines and watercourses where practicable, revegetate where necessary and incorporate into open space areas (including pedestrian and/or cycleway corridors) or include in common property.
- h) Link existing vegetation corridors through open space provision and appropriate planting.
- i) Lot boundaries should be located to incorporate the whole of any significant stand of vegetation that is not included in common areas.
- j) Land title choices should reflect the need to protect and enhance vegetation. For example, Community Title may be appropriate where degraded areas need to be rehabilitated and maintained as part of the consent.

#### Rural and environmental zones (including land zoned R5 Large Lot Residential)

- k) New development is not to result in the removal of remnant vegetation. Subdivision design should incorporate native vegetation into the character of the development.
- l) Significant areas of vegetation, existing or proposed vegetation/wildlife corridors, riparian areas, habitat, major drainage lines and land use buffers should desirably be contained in separate environmental buffer allotments with satisfactory provision made for their ongoing maintenance and management.
- m) Environmental enhancement may be required in areas that have previously become degraded, or are near areas of special conservation value or significant areas of native vegetation.

#### *Specific Controls:*

- n) The location of all natural drainage lines, wetland areas and significant stands of vegetation are to be mapped. Any vegetation to be removed must be identified and quantified. The subdivision application is required to address appropriate mechanisms for retention and protection of native vegetation.
- o) Where a subdivision proposal is likely to result in the loss of vegetation, or is likely to impact upon any environmentally sensitive area (such as a watercourse, wetland etc), it is to be accompanied by a flora and fauna assessment report prepared by a suitably qualified person. This report is to primarily address the 7 Part Test referred to in Section 5A of the Environmental Planning and Assessment Act, 1979, and the requirements of SEPP 44 – Koala Habitat Protection. As a result of this report a subsequent Species Impact Statement may be required.



- p) Where environmental enhancement is required, a planting and vegetation management scheme is to be prepared and implemented, indicating the reinstatement or enhancement of vegetation in riparian areas adjoining water courses, major drainage lines, significant areas of native vegetation, habitat, or proposed vegetation corridors and land use buffer areas.
- q) Planting should consist of species indigenous to the locality, and those which will enhance bio-diversity and provide wildlife habitat. Suitable species can be sourced from local nurseries, or seed collected from plants already growing in the area. Species and planting guidelines are available from Council and/or Greening Australia.

## EC.2 Heritage and Archaeology

### *Objectives:*

- To protect heritage items, buildings with heritage significance and Conservation Areas.
- To ensure that heritage items, buildings with heritage significance and Conservation Areas are properly considered in the design of new subdivisions.
- To protect known and potential archaeological relics from damage or destruction as a result of subdivision works.

### *General Requirements:*

Clause 5.10 in the Maitland LEP 2011 and Parts C.4: *Heritage Conservation* and E.3: *Heritage Conservation Areas* in this DCP contain provisions which require investigation and protection of heritage items in certain circumstances. These provisions apply in some cases to subdivision and must be complied with.

Where a subdivision proposal affects any listed heritage item, the impact on the curtilage or immediate context of a heritage item must be evaluated in the Statement of Environmental Effects. Part C.4: *Heritage Conservation* should be considered to determine whether the preparation of a Character Statement or Statement of Heritage Impact is required.

Preparation of an Archaeological Assessment may be required where there is no previous investigative study, or where such study was so broad that Council is unable to reasonably predict the likelihood of European or Aboriginal sites of significance (such as a site that is the location of an Aboriginal place or relic, within the meaning of the *National Parks and Wildlife Act 1974*). If in doubt, applicants should consult with the NSW National Parks and Wildlife Service or Council.

Part C.4: *Heritage Conservation* provides information and requirements for Initial Assessments (to determine the need for an Archaeological Assessment) and

Archaeological Assessments. Applicants should refer to this information, and must consult with Council staff prior to undertaking such work should an assessment be required.

It is an offence to destroy an Aboriginal Archaeological site without the consent of the Director of National Parks and Wildlife. Even where studies have been undertaken, if a place or relic is discovered during construction of a subdivision, all work in that area must cease until such consent is obtained. Similarly, the consent of the Heritage Office is required for destruction of significant non-aboriginal sites.

### **EC.3 Hazards**

#### *Objective:*

To minimise risk to life and property from hazards such as bush fires, flooding, landslip, land contamination, salinity and acid sulfate soils.

#### *General Requirements:*

All new subdivisions are to be designed to provide adequate, safe access for future users.

Each new lot created must have adequate site area/building envelope which is free from hazard and can accommodate future development on the site without costly site works on individual lots and without the necessity for loss of significant areas of vegetation.

#### *Performance Criteria:*

#### Flooding

- a) All lots within new residential subdivisions shall have safe access made available in a 1 in 100 year flood event.
- b) All new residential lots are to be wholly above Council's adopted flood standard (the 1% AEP or 1 in 100 flood event). In exceptional circumstances, and where lot sizes have been increased to provide sufficient flood free area for erection of a dwelling and associated structures, parts of the lot may be permitted below the adopted flood standard.
- c) Rural subdivision in floodways is not permitted. Where part of the land may be affected by flood waters (such as back-water), all lots must have a suitable building envelope, above the 1% AEP flood standard, of sufficient size to allow development of improvements, with any required effluent disposal area, and must have safe flood-access to a public road. Specific provisions in the Maitland LEP 2011 and the requirements of Chapter B.1: Hunter River Floodplain Management must be considered.

- d) New industrial/commercial lots will generally be required to be flood free and free from other hazards.

#### Bushfire prone land

- e) Proposals in areas subject to bushfire risk must indicate that measures to reduce risk to an acceptable level have been considered and can be achieved (for both the subdivision works and the resultant development) without significant loss of vegetation. The NSW Rural Fire Service publication "*Planning for Bushfire Protection*" 2006 and related guidelines should be consulted.
- f) Bushfire protection measures (including setbacks) necessary for the safety of development and firefighters must be contained wholly within the site of the subdivision unless the most extraordinary circumstances apply.

#### Other hazards

- g) Subdivisions must take account of any hazards identified in the Maitland LEP 2011 (such as acid sulfate soils), this DCP, or otherwise identified by Council or by Government gazette (e.g. unhealthy building land).

#### *Specific Controls:*

#### Bushfire prone land

- h) A bushfire threat assessment must form part of all development applications for subdivision where the land is identified as 'bush fire prone land' on Council's map. The threat assessment is an integral part of the subdivision design, and affects lot shape, size, orientation and road layout. Bushfire protection measures have the potential to affect vegetation, fauna, views, watercourses, soil erosion, amenity and access.
- i) Assessment of threat from bushfire must examine impacts of the proposal both within and external to the site, including the capacity of the existing road network serving the site to accommodate traffic in emergency situations.
- j) Preparation of an assessment of threat from bushfire should include reference to:
- k) NSW Rural Fire Service (RFS) – Planning for Bushfire Protection – a guide for land use planners, fire authorities, developers and home owners.
- l) Consultation with Council and RFS staff.
- m) Fire protection measure must be capable of being maintained by owners and users.



- n) Asset Protection Zones must be contained wholly within the subject site, and may incorporate fire trails, perimeter roads, cleared road verges and fixed building lines.
- o) The subdivision design must provide adequate emergency vehicle access to those parts of the site fronting a potential bushfires source.
- p) In instances where the balance between bushfire protection and environmental and social impact cannot be achieved, the proposal may not be supported.

*Restriction on Titles:*

- q) To ensure effectiveness of the fire protections measures, restrictions may be placed upon the titles of the affected lots. These restrictions may relate to:-
- r) Habitable storage structures being excluded from within the Fire Protection Zone.
- s) Level at which the fuel loading is to be maintained within the Fire Protection Zone.
- t) Responsibility for and nature of maintenance of fire trail, hazard reduction and Fire Protection Zone.

Landslip

- u) Where a subdivision proposal is on land identified as being subject to landslip, the applicant shall engage a geo-technical consultant to prepare a report on the viability of subdividing the land and, if viable, provide recommendations as to the siting and the type of buildings which could be permitted on the land.

Land contamination

- v) All development applications for subdivision shall provide documentation to satisfy the requirements of *State Environmental Planning Policy No. 55 – Remediation of Land*. The provisions in *SEPP55* will be used by Council to determine if and how land must be remediated. Comments will be sought from the Environment Protection Authority.

Other hazards

- w) Development applications for subdivision must include relevant assessment and geotechnical investigation regarding the potential for the presence of salinity and acid sulfate soils to determine if any specific measures are required. (*Note: The Maitland LEP 2011 includes specific requirements with regard to acid sulfate soils*).

- x) Buffer zones, exclusion zones and/or remediation works may be required by Council to ameliorate any or all of the above mentioned hazards.

### **DC.1 Lot Size and Dimensions**

#### *Objective:*

To ensure all new lots have a size and shape appropriate to their proposed use, and to allow for the provision of necessary services and other requirements.

#### *General Requirements:*

Part 4 in the Maitland LEP 2011 includes development standards for the subdivision of certain land. The standards are presented as minimum lot sizes and are depicted on the associated Lot Size Map. The minimum lot sizes vary between locations and land use zones.

Council requires that all new lots are of a size and shape suitable for their future use. Matters for consideration, in addition to any minimum lot sizes that may apply, are the need to allow for solar access, on-site effluent disposal (if permitted), access and parking, location of ancillary buildings such as garages and sheds, vegetation retention and soil conditions.

Where Part 4 in the Maitland LEP 2011 also regulates the development outcome on certain land by fixing maximum Floor Space Ratios and overall Building Heights, these provisions should also be considered in the design of the subdivision.

#### *Performance Criteria:*

#### General

- a) Lot boundaries should follow natural features such as water courses and ridges (rather than cut across them) to minimise the potential for soil erosion.
- b) Lot boundaries should take account of any requirement for screening or buffering from adjoining land uses.
- c) Lot size and dimensions are to be suitable for the existing or proposed use, including any requirement for building envelopes, ancillary buildings, farm dams, access, parking, landscaping, solar access, provision of services and/or other requirement of any existing Council development consent.
- d) In assessing the re-subdivision of an existing lot, Council will have regard to the circumstances and planning rationale that formed the basis for the creation of the parent lot the subject of the application.
- e) Subdivision proposals must not conflict with the requirements of any existing approvals.

- f) When calculating lot size area where battle-axe or hatchet shaped allotments are permitted, the area of the access handle is to be excluded from the area calculation.

Rural and environmental protection zones (including land zoned R5 Large Lot Residential)

- g) Subdivisions are to be designed to maintain and enhance the rural character and scenic attraction of the Maitland local government area, particularly in low lying areas and valleys which may be viewed from above.
- h) Lots are to be designed to conserve prime agricultural land and/or agriculturally productive lands.

*Specific Controls:*

Residential

- i) Access handles must have a minimum width of 3.5 metres for single lots, and be constructed in accordance with Council's Manual of Engineering Standards. No more than 2 lots may be serviced by a reciprocal right-of-carriageway which shall be centrally located within both access handles.
- j) A suitable building envelope with minimum dimensions of approximately 15 metres by 10 metres shall be provided behind the building line.

Rural and environmental protection zones (including land zoned R5 Large Lot Residential)

- k) Each new lot shall contain a building envelope with a minimum area of 2000 square metres and a minimum dimension of 20 metres, to be flood free in a 1% AEP event, and free of significant vegetation, significant topographical /natural features, and more than 40 metres from a watercourse. The building envelope is to contain any dwelling, outbuildings, landscaping and on-site effluent treatment and disposal areas.

Industrial and Commercial

- l) Subdivisions of existing commercial developments must maintain compliance with any minimum floor space ratio contained in Maitland LEP 2011.

**DC.2 Solar Access and Energy Efficiency**

*Objective:*



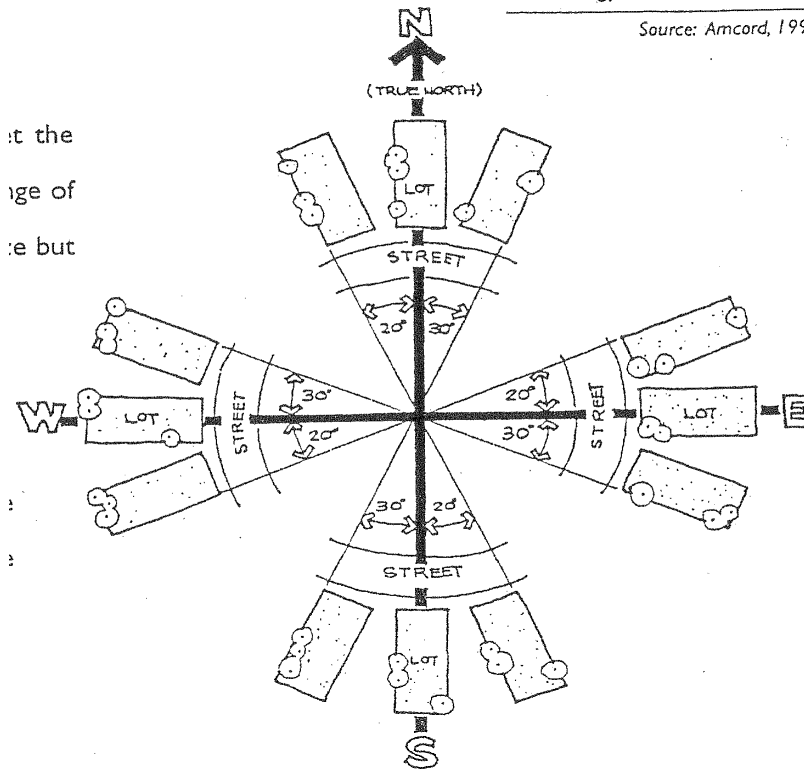
To encourage the design of residential subdivisions which maximise solar access, allow flexibility in the siting of future buildings to take advantage of a northern orientation, and minimise reliance on private car use.

*General Requirements:*

The intent is to maximise the number of dwelling allotments which have good solar access and which therefore optimise the design performance of energy smart homes, and to reduce reliance on private car use through adequate links to and provisions of, public transport, pedestrian and cycleway routes.

All new residential subdivisions are required to comply with the Performance Criteria.

**Figure 1**  
Preferred orientation of lots in an energy efficient subdivision  
*Source: Amcord, 1995*

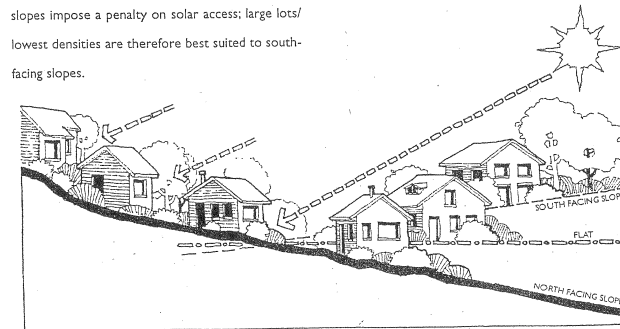


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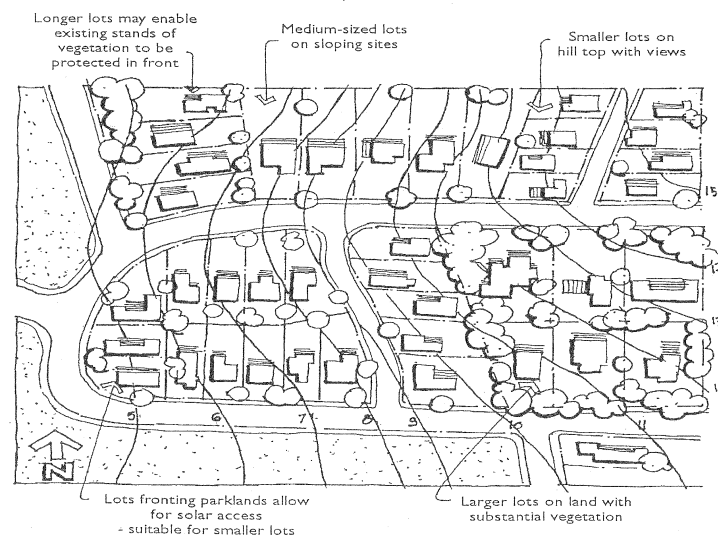
- a) 80% of new lots are to have 5 star solar access, as defined by an analysis determined from the “Possible Design Solutions – Solar Access” booklet, and the remainder a 3 or 4 star rating.
- b) Lot sizes are to reflect reasonable consideration of the impact of topography, aspect and other constraints so as to maximize solar access.



**Figure 2: Slope and aspect affect shadows and possible dwelling density**

- a) Where possible lots should be oriented to provide one axis within 30 degrees east and 20 degrees east of true solar north.
- b) Where a northern orientation of the long axis is not possible, lots should be wider to allow private open space on the northern side of the dwelling.

**Figure 3**  
Lot size, slope and aspect



**Figure 3: Lots size, shape and orientation to achieve maximum solar access**

- c) Proposals for street planting or open space planting are to take account of the potential for shading, provision of adequate solar access to dwellings, and if necessary, protection from winter winds.

### DC.3 Drainage, Water Quality & Soil Erosion

#### *Objectives:*

- To preserve natural drainage systems, where practicable, and to provide for the repair and enhancement of environmentally significant and/or degraded land.
- To retard the flow of water, above natural volumes, into the natural drainage system and mitigate impacts from stormwater runoff.
- To maintain and enhance the quality of water and catchment health.
- To minimise soil erosion and sedimentation by minimising land disturbance and requiring control measures at the source.

#### *General Requirements:*

There are no general requirements for this element.

#### *Performance Criteria:*

- a) Existing topography and natural drainage lines should be incorporated into drainage designs for larger proposals, and enhanced through provision of additional landscaping, detention areas, artificial wetlands and the like.
- b) Drainage from proposed lots should be consistent with the pre-development stormwater patterns. An analysis of the downstream drainage system, to the receiving area or waters, may be required.
- c) Best management practices should be implemented to control runoff and soil erosion and to trap sediment on the subject land to ensure there is no net impact on down stream water quality. The quality of runoff water from the subject land should be the same or better than the quality of water prior to the subdivision taking place.
- d) Where possible, design multiple use drainage and treatment systems incorporating gross pollutant traps, constructed wetlands and detention basins.
- e) The subdivision should be designed so as to minimise disturbance of the subject land especially in circumstances where there are topographical constraints.
- f) Adequate provision should be made for implementation of measures during subdivision construction to ensure that the landform is stabilised and erosion controlled.



*Specific Controls:*

- g) All trunk drainage is to be located in publicly owned land, (reserves), in open space land or in an appropriate easement.
- h) Where the drainage impacts of the subdivision proposal cannot be limited to pre-development stormwater levels by retention or other approved methods, drainage easements will be required over all necessary properties and watercourses. In such circumstances, the easement must be the subject of a signed agreement prior to issue of development consent. Such easements shall be created with, or prior to issue of the Subdivision Certificate.
- i) Where site topography in new residential subdivisions prevents discharge of storm water directly to the street gutter or a Council controlled pipe system, inter allotment drainage should be provided to accept run off from all existing or future parcels of land. The design and construction of the inter allotment drainage system should be in accordance with the requirements of Council's Manual of Engineering Standards.
- j) Where inter-allotment drainage is required, easements having a general minimum width of 1.5 metres are to be identified on plans submitted.
- k) A soil and water management plan (SWMP) should be prepared by a properly qualified practitioner with the aim of minimising erosion and maximising the quality of any water leaving the site. Applicants should refer to Council's Manual of Engineering Standards.

**DC.4 Landscape, Streetscape & Visual Impact***Objectives:*

- To maintain and enhance the existing rural character and landscape of the Maitland LGA.
- To create, maintain and enhance streetscape and minimise visual impact of subdivision proposals.

*General Requirements:*

Existing landscape and streetscape character should be maintained and enhanced through retention of existing vegetation, provision of additional landscaping and selection of other streetscape items including surface treatments and street furniture.

The visual impact of rural residential subdivisions must be considered especially in areas where they can be viewed from a distance or from above. Landscaped buffers may be required.

Submission of a Landscape Plan will be required for residential and rural residential subdivisions, indicating the location of street trees and any other required landscaping.

The developer will also be required to submit a detailed landscape plan for all reserve areas incorporating fencing detail and will be required to construct all fencing for residential and rural residential lots where the lots share a common boundary with a proposed public reserve. Fencing shall be carried out as an integral part of the subdivision works and will be required to be completed prior to Council releasing the relevant Subdivision Certificate. Council may require that the fencing be of open style/pool type depending on the topography and landscape character of the adjoining reserve. Where open style fencing is provided, the landscape design will need to demonstrate that the location of plantings is adequate to ensure a suitable level of privacy for the adjoining residential lots, reduce the visual impact of the fencing and improve the landscape quality of the reserve. Fencing shall comprise materials of darker colour/tones which blend more effectively with the landscape.

#### **DC.5 Effluent Disposal**

*Objective:*

- Subdivisions are to be designed and located so that any effluent can be disposed of in an environmentally sustainable manner, with no adverse impact upon natural systems or adjoining/adjacent land.
- The sewage management system chosen will be the most appropriate to ensure the protection of the local environment and the health of existing and future populations.

*General Requirements:*

The preferred method of effluent disposal for all new lots is by connection to a reticulated sewerage system. Lot size and layout must be adequate to allow appropriate effluent disposal systems to be provided for likely subsequent development.

Effluent and waste water should be disposed of in a manner which is consistent with the land capability of the property and in a manner that will not cause unhealthy or unsanitary conditions. There are to be no net cumulative effects on the environment.

Where sewer is not available in rural areas (including Large Lot Residential areas or environmental zones) lots must be of sufficient size and containing suitable

land to ensure that all effluent can be retained and disposed of on-site. Comprehensive site investigation will be required prior to any approval being granted for on-site disposal.

*Performance Criteria:*

There are no performance criteria for this element.

*Specific Controls:*

- a) All new residential, industrial and commercial lots are to be connected to a reticulated sewerage system supplied by the Hunter Water Corporation or other approved supplier.

Rural and environmental zones (including land zoned R5 Large Lot Residential)

- b) The preferred method of effluent disposal for all new lots is by way of reticulated sewerage system. This can include the use of a community package treatment plant if Hunter Water Corporation reticulation is not available.
- c) Where a reticulated sewerage system is not envisaged in the long term, on-site disposal may be considered by Council. Detailed modelling will be required to assess the ability of land to accept the waste water and consequently determine minimum lot sizes.
- d) All subdivision applications in unsewered areas must include an analysis of the feasibility of utilising innovative or centralised sewerage schemes that reuse waste water wherever possible as an alternative to single on-site sewage management facilities.
- e) Where areas of the site are unsuitable for on-site disposal, clustering of lots and provision of a common effluent system on a suitable area under a group title must be considered. On-site disposal where site characteristics are unsuitable will not be approved.
- f) No pump out systems will be permitted.
- g) All studies must be undertaken by persons with demonstrable expertise in on-site effluent management and the capacity to incorporate catchment modelling techniques which are acceptable to Council.

## **DC.6 Roads & Access, Pedestrian & Cycleways**

*Objectives:*



- To provide a distinctive and hierarchical network of roads with clear physical distinctions between each type of road, based on public safety, function, capacity, traffic volumes and vehicle speeds;
- To provide a safe and appropriate level of access to all new lots created;
- To provide acceptable levels of access, safety and convenience for all road users, including pedestrians and cyclists;
- To provide access for emergency and service vehicles to all lots and enable the establishment of efficient and accessible bus/public transport routes;
- To accommodate public utility services and drainage systems;
- To minimise road construction costs, energy demand, risk exposure and maintenance costs without compromising other objectives.

*General Requirements:*

Subdivisions must be designed having regard to network/hierarchy requirements and be designed and constructed to an appropriate standard for their intended use. Road standards will vary between residential, rural residential and industrial /commercial locations.

Detailed guidelines for design and construction of roads are contained in Council's Manual of Engineering Standards. However, a guide to minimum road widths for various forms of subdivision is contained in the following table:

**ROAD TYPES AND DIMENSIONS**

Road Type	Max. No. Lots	ReserveWidth (m)	Carriageway or kerb -kerb (m)
Access Place	10	17	8
Local - Minor	20	17	8
Local - Secondary	50	17	8
Local - Primary	100	17	8
Collector	200	17	8
Distributor - Secondary	400	20	11
Distributor - Primary	800	22	11
Arterial or Sub-Arterial	> 800	24	13
Rural Residential (1c)	per above	20	7.5
Rural Residential (1d)	per above	20	per categories above
Rural – Minor	50	20	8
Industrial	10	20	11
Industrial	> 10	22	13

Road widths and design can be proposed outside of the criteria contained in the Manual, only if there is a demonstrated integrated approach to the subdivision layout having regard to traffic speed, traffic volumes, desired future urban character and safety and amenity of all road users. Any variation will require the consent of the Council. Proposals to vary minimum requirements must be discussed with relevant staff prior to preparing and lodging applications.

*Performance Criteria:*

- a) Road design should take account of the location of existing vegetation and other natural features and minimise loss of vegetation and soil disturbance through excessive cut and fill.
- b) All of the components of residential streets (including kerbing, pavement type, and width, street tree planting, footpath paving, lighting, seating and the like) should be considered in an integrated approach to ensure that attractive, safe living environments are created.
- c) Traffic control devices such as speed humps, thresholds, pavement colour and surface texture are encouraged to reduce traffic speeds in residential streets, but require separate approval from Council's Traffic Committee.
- d) Road widths and geometry in all urban subdivisions must accommodate necessary service and emergency vehicles.
- e) Roads and access to public roads shall be designed and constructed in accordance with Council's Manual of Engineering Standards.
- f) Direct vehicular access to classified roads such as the State highway, or main roads may be prohibited in favour of a separate "service road", subject to RTA concurrence. Consultation with the RTA is recommended.
- g) Roads and intersections serving new rural and large lot residential subdivisions may require upgrading in accordance with the provisions of Council's Manual of Engineering Standards;

*Specific Controls:*

- h) Public road access is required to all new lots in Torrens Title subdivision.
- i) All roads in large lot residential subdivisions (including land zoned E4 Environmental Living) must be provided and sealed, in accordance with Council's Manual of Engineering Standards.

Residential Subdivisions

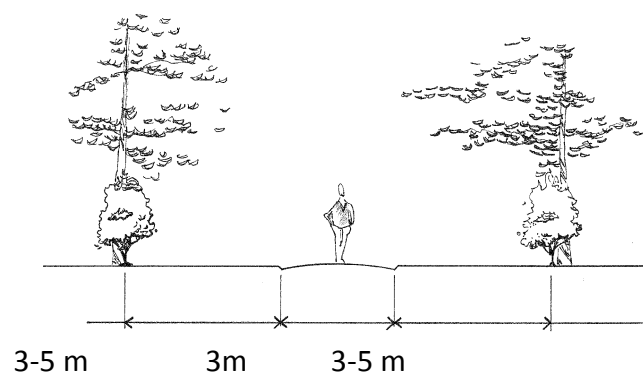
- j) A network of constructed (i.e. not grass) footpaths and cycleways will be required in all residential subdivisions, located, designed and constructed in

accordance with Council's Manual of Engineering Standards, and in view of streets wherever possible to allow surveillance.

- k) Pedestrian links between residential cul-de-sacs or other road layouts should comply with the following criteria to provide:
  - I. A minimum width of 3.5m, except where the pathway acts as an overland flow path for stormwater drainage
  - II. Reasonably short overall lengths
  - III. A straight corridor alignment to allow unobstructed sight lines along its length
  - IV. Paving preferably on a curved alignment
  - V. Landscaping with low-level and groundcover species
  - VI. Lighting in accordance with AS1158
- l) Particular attention should be paid to pedestrian links to schools, with regard to their width, lighting (to Australian Standard) and the appropriateness of landscaping and related safety issues.
- m) The road, footpath and cycleway network should facilitate walking and cycling throughout neighbourhoods and provide links to schools, community facilities and other activity centres.
- n) Access ways to hatchet shaped or battle axe lots will serve a maximum of 2 lots, have a maximum grade of 25% (4H:1V) at any point.

#### DC.7 **Crime Prevention – Safer By Design**

Effective design of subdivisions can reduce community fear as well as opportunities for crime. Council will consider the following design principles in the assessment of subdivision applications. How they apply to individual development applications will depend on the nature of the proposal and prevailing crime risk in the area.



*Figure 1: Pathways and bicycle ways should have a 3-5 metre clear area on either side.*



*Objective:*

To ensure that Council does not approve subdivisions that create or exacerbate crime risk or community fear.

*Design Principles:*

Design of subdivisions should consider the following principles:

- a) Clear sightlines between public and private places.
- b) Landscaping that makes places attractive, but does not provide offenders with places to hide or entrap victims.
- c) Dense vegetation or structures should not be located beside bicycle routes or pedestrian walking paths. A safety convention is to have 3-5 metres of cleared space on either side of pathways and bicycle routes. Pedestrians feel more comfortable sharing wide paths than narrow paths.
- d) Natural surveillance should focus on orientation of buildings and strategic use of windows, balconies, entrances, permeable fencing and street design. Tactical location of living areas, workstations, offices and recreation areas help surveillance opportunities.
- e) Lots created should be designed so buildings face outwards towards public and semi-public areas to provide natural surveillance opportunities.
- f) Lighting of public places such as public streets, car parks and pedestrian areas should meet the relevant Australian Standards. Effective lighting reduces fear and can increase community activity. The types of lighting should also be considered (different lights are used in different situations).
- g) Council may require a report from a suitably qualified lighting engineer for lighting of public areas within subdivisions.
- h) Design subdivision layouts with clear transitions and boundaries between public and private space. This can be achieved through landscaping, natural barriers such as waterways or topographic features and by the use of gates, bollards and fencing.
- i) In some cases public areas may need to have restricted access, particularly at night, to prevent vandalism and anti-social behaviour.

**DC.8 Site Filling***Objectives:*

To ensure the environmental impact of site fill is properly assessed.

*General Requirements:*

Earthworks require development consent of Council under the provisions of the Maitland LEP 2011, unless either exempt or complying development. Earthworks including site filling.

Where site filling is necessary or proposed, the materials used and extent and depth of fill must be detailed in the development application for the approval of Council prior to issue of a Construction Certificate. Council will take into account the provisions of AS 3798-1990, which provides guidelines on the specifying, execution and control testing of earthworks and associated preparation works within commercial and residential developments.

An absolute maximum fill depth of 2 metres will be considered by Council.

**DC.9 Reticulated Services (Water/Sewer/Electricity/ Telecommunications)**

*Objective:*

To provide appropriate utility services to all new lots in an efficient, co-ordinated and cost-effective manner, and to restrict subdivisions that create unreasonable or untimely demand for the provision or extension of services, having regard to ecologically sustainable development (ESD) and to ensure minimal environmental impact.

*General Requirements:*

Council requires provision of services to all new lots to a standard appropriate to the future use of the lots and to minimize environmental impacts.

**Note:** Drainage, vehicular access, and effluent disposal (where reticulated systems are not available) requirements are dealt with elsewhere in this chapter.

*Performance Criteria:*

Water and Sewer

- a) Reticulated water and sewer supply is required for all new urban lots (residential, commercial, industrial) in accordance with the requirements of the Hunter Water Corporation.
- b) Council's preference is for all new large residential lots (including land zoned E4 Environmental Living) to be connected to reticulated sewer. This can include the use of a community package treatment plant if Hunter

Water Corporation reticulation is not available. If no reticulated sewer, effluent disposal to be undertaken in accordance with requirements contained in “Effluent Disposal” Design Element below.

### Electricity

- c) Underground low voltage electricity supply to all new residential lots (including land zoned E4 Environmental Living) to the requirements of Energy Australia or other approved electricity provider, unless Council and provider determine that overhead supply is permitted due to flood liability of land or the land fronts a road supplied by existing overhead electricity reticulation.
- d) For industrial and commercial lots, underground electricity supply shall be provided to all new lots, to the requirements of Energy Australia or other approved electricity provider, unless Council and the provider determine otherwise.
- e) Low voltage electricity supply must be available to the boundary of all new rural lots in accordance with requirements of Energy Australia or other approved provider.
- f) Pad mounted substations, if and where required, should be placed within pedestrian walkways, behind landscaped screens or otherwise sympathetically treated to reduce visual impact.

### Street Lighting

- g) Street lighting shall not be provided for low-density residential subdivisions, unless special circumstances (consistent with AS1158) warrants installation.
- h) Street or road lighting shall not be provided for rural subdivisions.

### Telecommunications

- i) Telephone connection to be available to all new lots in accordance with the requirements of Telstra or other approved provider.

### *Specific Controls:*

### Water and Sewer

- j) Submission to Council of a Section 50 Certificate from the Corporation prior to issue of Subdivision Certificate (Endorsed “linen” plan);

### Electricity

- k) Written evidence from the provider that installation of all services is complete and meets requirements must be submitted to Council prior to issue of the Subdivision Certificate;

#### Low density residential lots

- l) All new low-density residential lots (including land zoned E4 Environmental Living) to be capable of draining to the street frontage or to an inter-allotment drainage easement (see also “Drainage and Water Quality” Design Element below).

### **IC.1 Entry Features**

This section applies to any structures such as masonry walls, earth embankments and any other landscaping feature intended to identify subdivisions. Such features are typically established in pairs at the entry to residential precincts may also be incorporated into industrial and commercial subdivisions. The features typically display the name and/or the logo of the estate.

#### *Objectives:*

To ameliorate the potential cumulative visual impact of entry features and to regulate issues such as their location, size and life span.

#### *General Requirements:*

- a) Entry features will only be considered and approved with the development application for subdivision and all details should be included with the detailed landscaping plans.
- b) Entry features will only be permitted in conjunction with residential subdivisions of 50 lots or more. Entry features for industrial and commercial subdivisions will be considered on merit.
- c) Entry features shall be limited to one pair at the primary entrance to a new subdivision.
- d) Entry features can only display the name of the estate NOT street names.
- e) Entry features shall only be located on privately owned land.
- f) Entry features for residential subdivisions shall be limited to a size of 20m sq with a maximum height of 2 metres. The size of entry features for



industrial and commercial estates will be considered on merit.

- g) In certain circumstances the erection of entry features may be considered at a later stage but must comply with the guidelines.

## **IC.2 Street Names**

Proposed street names must be submitted to Council for approval in accordance with Council's policy at the time of lodgement of the development application. Street name signs will be required at the junction of any roads in the subdivision in accordance with Council's Manual of Engineering Standards.

## **IC.3 House/Lot Numbering**

Council supplies a number for all new urban and rural lots created, and has an adopted policy in this regard. A fee applies for this service.

# C.11 – Vehicular Access & Car Parking

## 1. INTRODUCTION

### 1.1 Preamble

This chapter outlines Council's policy for the provision of parking and service delivery facilities in association with development proposals in the City of Maitland.

The parking requirements outlined in this document are based largely on the research and findings of the Roads and Traffic Authority of NSW and the Standards Australia Committee on Parking Facilities.

### 1.2 Application

This chapter applies to development on all land within the City of Maitland.

### 1.3 Purpose

To provide guidance on all aspects of parking generation relating to development.

### 1.4 Objectives

- To ensure adequate provision of off-street parking to maintain the existing levels of service and safety on the road network;
- To detail requirements for the provision of parking and loading/unloading facilities in association with development in the City of Maitland;
- To provide a consistent and equitable basis for the assessment of parking provisions;
- To facilitate design of parking areas, loading bays and access driveways which function efficiently;
- To ensure that parking areas are visually attractive and constructed, designed and situated so as to encourage their safe use; and
- To acknowledge the traditional lack of parking spaces within areas of historical or architectural significance (Central Maitland, Morpeth) and balance this with the need to facilitate development in order to maintain vitality and vibrancy in such centres.

## 2. GENERAL REQUIREMENTS

### 2.1 General Principles

In determining the parking and traffic requirements for a development proposal, the following principles shall be followed:

- the minimum standards as set out in this plan;
- the likely demand for of-street parking generated by the development;
- the availability of public transport in the vicinity to service the proposed development;
- the probable mode of transport to be used by employees and/or customers;
- the likely peak times of usage of the proposed development;
- the existing traffic volumes on the surrounding street network including, where relevant, the potential future traffic volumes; and
- the equity of requiring of-street parking for individual developments within areas such as Maitland City Centre and Morpeth, where historical parking deficiencies have occurred.

## 2.2 Calculation of Parking Requirements

### a) *Development Generally*

The minimum number of parking spaces to be provided for a particular development is to be calculated in accordance with **Appendix A** of this policy.

### b) *Mixed Uses*

Ancillary components of a land use (for example an office within an industrial building that occupies less than 20% of the total floor space) will be assessed according to the rate required for the principal land use.

For developments incorporating different categories of uses, a separate calculation will be made for each component and then added together to provide the total parking requirement. Any departure from this method will only be considered where it is demonstrated that the peak demand for each land use component of the development is staggered. In this regard the applicant should submit a parking profile showing the cumulative parking demand by time-of-day.

### c) *Calculation of Numbers*

Where the calculation results in a fraction of a space, the total number of parking spaces required will be the **next highest** whole number.

### d) *Change of Use*

Where the use of an existing building is to be changed, or where an existing building is to be replaced with a new building, the following method of calculation shall apply:

- I. The parking requirements of the previous or existing premises is to be determined in accordance with **Appendix A** of this policy;
- II. The parking requirement of the proposed development is to be determined in accordance with **Appendix A** of this policy;
- III. Subtract the number of spaces determined in (a) above from the number of spaces calculated in (b) above;
- IV. The difference calculated in (c) above represents the total number of parking spaces to be provided in addition to the existing of-street carparking.

Where an existing building is to be replaced by a new building which has a floor area not exceeding the floor area of the existing building, and no change of use is proposed, no additional parking is required to be provided.

Notwithstanding the above, **nothing in this plan requires the provision of additional parking in conjunction with the conversion of an existing approved office or business premises or a shop, to either a shop or a restaurant or cafe, within business zones of the Maitland City Centre (refer to Map )**

e) *Renovation of Existing Buildings*

Nothing in this Plan requires the provision of additional parking where an existing building is being renovated for its existing use.

f) *Extensions/Additions to Existing Development*

Where existing premises are being extended to create additional floor space, the additional parking requirement shall be calculated in accordance with **Appendix A** on the basis of the increased floor space.

g) *Small Scale Additions*

Council may, at its discretion, waive the carparking requirement for small-scale additions where the extension is not directly related to the parking generation potential of the development.

h) *Complementary Parking Facilities*

Council may, at its discretion, consider reducing car parking requirements where it can be demonstrated that a particular development generates its peak parking demand outside the hours of 9.00am to 6.00pm and is generally situated in business zoned areas where public car parking



facilities are in close proximity. The extent of any reduction shall be determined having regard to the parking generation characteristics of the development and shall generally not exceed 70%.

### **3. GUIDELINES FOR THE DESIGN, LAYOUT AND CONSTRUCTION OF ACCESS AND PARKING AREAS**

The dimensional requirements for on-site car parking spaces and driveways giving access to parking spaces shall generally be as set out in accordance with the *Australian Standard AS2890.1-1993 Parking Facilities – Off-Street Car Parking*, and summarised below. This part of the DCP also provides general design principles that apply to off street parking to ensure that car parks contribute to the quality of the physical environment, as well as being safe and efficient vehicle standing areas.

#### **3.1 Access To The Site**

A development should be designed to provide adequate on-site manoeuvring and circulating areas to ensure that all vehicles can enter and leave the site in a forward direction.

Access to or from a site shall be located where it causes the least interference to vehicular and pedestrian traffic on the road frontage. Access will generally not be permitted in the following locations:

- a) close to traffic signals, intersections or roundabouts where sight distance is considered inadequate by Council;
- b) opposite other developments generating a large amount of traffic (unless separated by a median island);
- c) where there is heavy and constant pedestrian movement along the footpath;
- d) where right turning traffic entering the facility may obstruct through traffic; and
- e) where traffic using the driveways interferes with, or blocks the operations of bus stops, taxi ranks, loading zones or pedestrian crossings.
- f) Direct access onto a major road is to be avoided wherever possible. Auxiliary lanes, (deceleration and acceleration lanes), may need to be provided to minimise conflicts between entering/leaving traffic with through traffic. In many cases, right turn movements into a site are unlikely to be supported, unless an exclusive right turn bay is provided.

Council may designate areas over the street frontage of the development where no stopping or no parking sign posting is to be installed to facilitate the entry/exit of vehicles and the safe movement of cyclists and pedestrians. Any on-street signage would be required in accordance with Australian Road Rules requirements as identified by Council's Local Traffic Committee.

### 3.2 Sight Distances

Consideration must be given to maintaining adequate sight distances for all access driveways. Any vehicle entering or leaving the driveway must be visible to approaching vehicles and pedestrians. *AS 2890.1 Off Street Car Parking* gives minimal and desirable sight distances for a range of road frontage speeds.

### 3.3 Entrance / Exit to the Site

The entry and exit requirements for parking areas may vary in relation to:

- the size of vehicles likely to enter the proposed development;
- the volume of traffic on the streets serving the proposed development; and
- the volume of traffic generated by the development.

The driveway standards recommended by the Roads and Traffic Authority of NSW for Traffic Generating Developments are adopted for the purpose of this Plan.

Requirements specified by the Roads and Traffic Authority are summarised in Tables 1 and 2 in Appendix B, and in general the following shall apply:

- separate entrance and exit driveways should be provided for developments requiring more than 50 car parking spaces or where the development generates a high turnover of traffic such as a service station or other drive-in retail facilities;
- entry and exit driveways shall be clearly signposted;
- the number of access points from a development site to any one street frontage should be limited to one ingress and one egress; and
- the potential for on-street queuing should be minimised by ensuring that adequate standing areas are available for vehicles entering the car park and loading areas.

### 3.4 Location of Parking Areas

Parking facilities for visitors and customers shall be provided where clearly visible from the street so their use is encouraged.

Parking spaces for employees and for longer duration parking may be located more remotely from the street.

Within the development site, the location of the parking area should be determined having regard to:

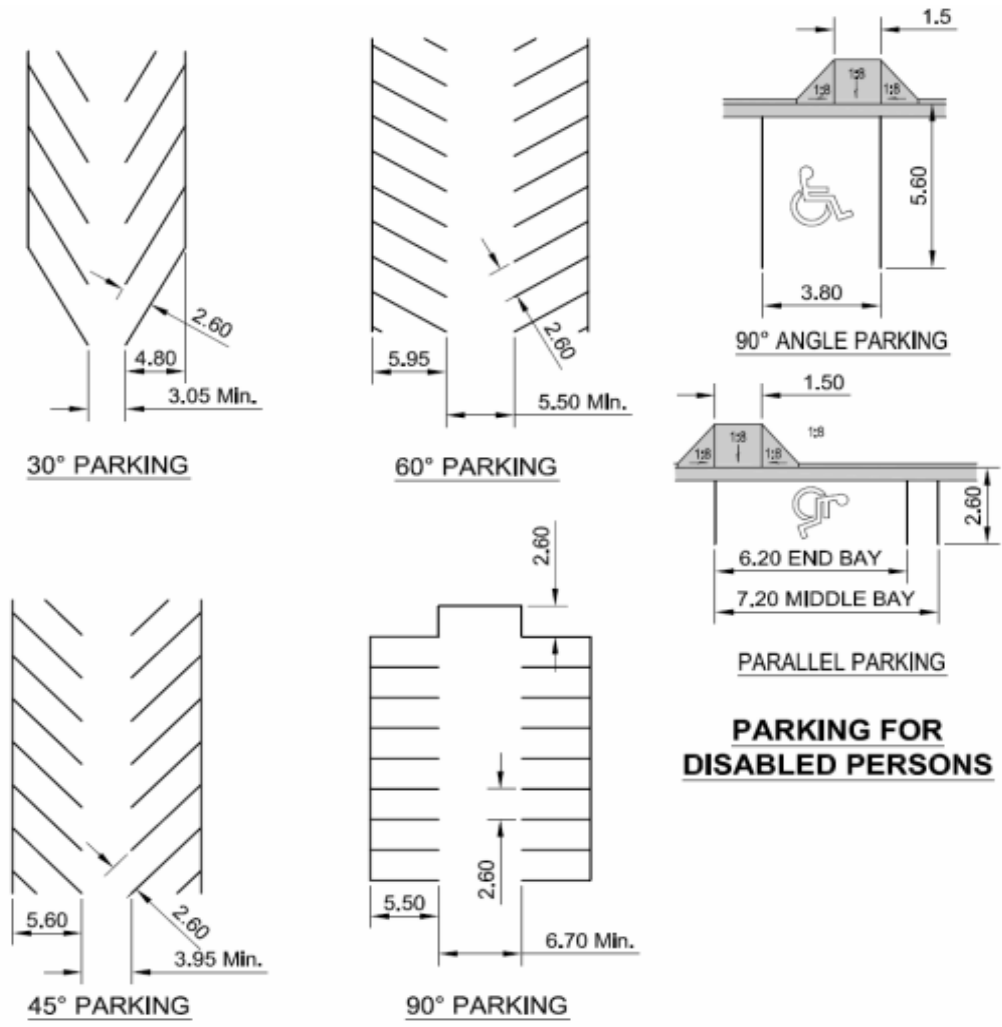
- a) site conditions such as slope and drainage;
- b) visual amenity of the proposed and adjacent development;
- c) the relationship of the building to the parking area; and

- d) the proximity of the parking area to any neighbouring residential areas.

### 3.5 Parking Space and Aisle Dimensions

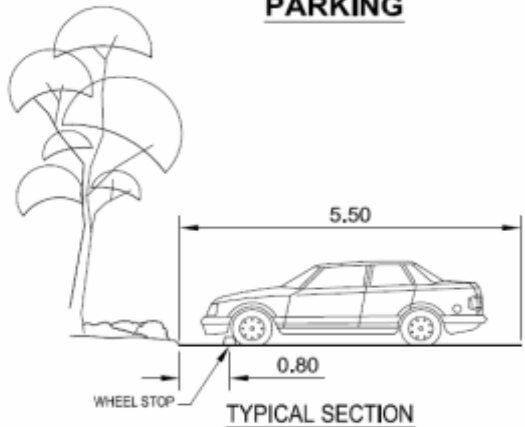
The following figures illustrate typical parking layouts and aisle dimensions. It should be noted that these parking space dimensions represent minimum unobstructed requirements and that greater dimensions should be provided in the following instances:

- a parking space which has a wall or obstruction on one side – an additional 300mm width to that shown is required; and,
- for the end space in a blind aisle, the width is to be increased to 3.6 metres.



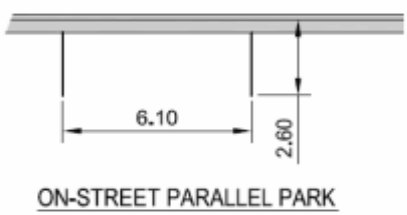
**PARKING FOR DISABLED PERSONS**

**OFF-STREET PARKING**



**Note**

1. One Way traffic is assumed
2. Min width for two way traffic to be 6.70m
3. All dimensions in metres



**Figure 1 – Parking Spaces & Aisles – Recommended Dimensions**



### 3.6 Construction Requirements

In general, all car parking areas, manoeuvring areas and unloading areas shall be constructed with a base course of adequate depth to suit design traffic, and shall be sealed with either bitumen, asphaltic concrete, concrete or interlocking pavers. In choosing the most suitable pavement type, consideration should be given to:

- anticipated vehicle loads;
- run-off gradients and drainage requirements; and,
- construction constraints.

The works are to be maintained to a satisfactory standard throughout the term of development and/or use of the land for which the facilities are provided. Particular consideration needs to be given to the appearance of car parking areas within Heritage Conservation Areas, or associated with or adjacent to, listed Heritage Items, where large areas of bitumen surfaced car parking are not recommended. In these circumstances alternative treatments should be discussed with Council's Planning staff. A combination of landscaping and choice of sympathetic materials (eg pavers, faux brick or in certain circumstances stabilised gravel finish) is generally recommended as the most practical solution.

### 3.7 Landscaping

Parking areas shall be appropriately landscaped to achieve a satisfactory appearance, particularly for those car parks with large areas of bitumen, to provide shade and to provide a buffer between neighbouring land uses. Landscaping should be used throughout the car park and on the perimeters. In general, there should be no more than 10 parking bays before a break with planting.

Species should be selected and located to avoid maintenance problems, so that they do not hinder visibility at entry or exit points and so that they do not cause damage to paved areas by root systems or create excessive leaf or branch litter. Trees with large surface roots, excessive girth, brittle limbs, fruits which drop and trees which attract large numbers of birds should be avoided in parking areas. In most cases landscaping can be integrated into parking layouts without the need for additional area or loss of car parking spaces.

Wheel stops are to be provided along the front of parking bays to prevent vehicles from damaging landscaped areas, buildings and/or fencing and other vehicles.

### 3.8 Directional Signs and Marking

Parking areas are to be clearly signposted and line-marked. Entry and exit points are to be clearly delineated and parking spaces for specific uses (disabled,

visitors, employees etc) clearly signposted. "One way" markings must be clearly set out on the pavement in such a manner as to be easily readable and understandable to users of the car park.

Council may designate areas within the car park where no stopping or no parking signposting is to be installed to facilitate the free movement of vehicles and pedestrians.

### 3.9 Principles for Crime Prevention

Effective design can be used to assist in the reduction of crime opportunities. The following design principles will be considered by Council in the assessment of applications. How they apply to each development application will depend on the nature of the development proposal and prevailing crime risk in the area. The aim of these principles is to ensure that Council does not approve developments that create or exacerbate crime risk.

Design of car parking areas should consider the principles of effective lighting.

Lighting is to be provided in off-street car parks in accordance with the requirements of *AS 2890.1, 1993 – Parking Facilities Off Street Parking*. Lighting may also be required over the street frontage of the development, particularly at entry or exit points in accordance with *AS/NZS 1158, 1997 – Road Lighting*.

- a) Provision of clear sightlines between public and private places;
- b) Landscaping that makes the car park attractive but does not provide offenders with a place to hide or entrap victims;
- c) In some cases restricted access to the car park, particularly after business hours through the use of physical barriers should be considered;
- d) Design with clear transitions and boundaries between public and private space through the provision of clear access points;
- e) Clear design cues on who is to use the space and what it is to be used for – care should be taken to ensure that gates and enclosures do not make public areas into private areas and consideration should be given to suitable signage (eg need to lock vehicles);
- f) Strategies to prevent vandalism through appropriate design, eg durable lighting materials and minimisation of exposed walls;
- g) Management strategies for site cleanliness, rapid repair of vandalism and graffiti, the replacement of burned out lighting, the removal or refurbishment of decayed physical elements and the continued maintenance of landscaped areas.

## 4. LOADING/UNLOADING REQUIREMENTS

### 4.1 General

On-site loading and unloading facilities must be provided for **all** businesses, commercial, industrial, retail and storage uses and any other where regular deliveries of goods are made to or from the site.

### 4.2 Number and Size of Loading Bays

The number and dimensions of the on-site loading bays must be designed having regard to the nature and scale of the proposed development, the estimated frequency of deliveries, the type of delivery vehicle likely to be involved and the types of goods being loaded/unloaded. Accordingly, these details are required to be submitted with the Development Application for Council's consideration.

As a guide, for small and medium-sized shops or commercial premises, restaurants or small-scale industrial development likely to involve the use of vans, utilities or small trucks only, one loading bay will usually be sufficient.

### 4.3 Design and Layout of Loading Bays

The loading areas must be designed to ensure that standard design vehicles can manoeuvre into and out of all loading areas without causing conflict to the movement of traffic on-site or in the adjacent streets.

It is not possible to specify dimensions for service areas which would be appropriate for all situations. The dimensions of the service bay will depend, in part, on the type of vehicle to be accommodated.

The loading bay(s) should be a physically defined area ( by signposting and/or pavement marking) which is not used for other purposes such as customer parking or the storage of goods and equipment.

The loading areas must be designed to ensure that vehicles stand entirely within the site during all loading and unloading operations.

Where existing buildings are being redeveloped, all of the above design criteria may not be achievable. However, every effort must be made to ensure that public safety is not compromised.

In addition to the above requirements, the Roads and Traffic Authority's "*Guide to Traffic Generating Developments*" details recommended dimensions for loading areas based on the various types of service vehicles and other requirements for ramps, internal roadway etc (refer to Table 1 in Appendix B).

Council's Planning and Environmental Group should be contacted if further information is required.

## 5. CAR PARKING FOR PERSONS WITH A DISABILITY

Special parking spaces for persons with a disability are to be made available in the provision of car parking facilities, in accordance with *Australian Standard AS2890.1 – 1993*. In general, where 10 or more vehicle spaces are required, one designated parking space for people with disabilities is required per 100 (or part thereof) car spaces provided. Council has adopted the 'enhanced' requirements for landuses where there is a higher demand for disabled facilities. For example, for retail shopping complexes, community facilities and medical centres, parking provisions for people with disabilities should be increased to 2 to 3 % of the overall parking requirements. Council's enhanced car parking standards are as follows:

- medical services, including community health centres – 1 space per two to five surgeries (or equivalent), 2 spaces for six or more surgeries (or equivalent)
- entertainment facilities clubs and public halls, large retail complexes (ie>100 spaces) and railway stations – 3 spaces per 100 car parking spaces

The location of spaces designated for persons with a disability should be close to an entrance to a building or facility with access from the car space by ramps and/or lifts. These spaces should be clearly signposted for the convenience of their users and to discourage other drivers from using such spaces. The spaces should be a minimum of 3.2 metres wide to assist movement into and out of parked vehicles – refer to Figure on Page 287.

## 6. BICYCLE PARKING

Provision is to be made for cyclists via the installation of bicycle parking facilities in accordance with *Australian Standard AS 2890.3-1993 – Bicycle Parking Facilities* and *Austrroads Guide to Traffic Engineering, Part 14*.

## 7. MAJOR TRAFFIC GENERATING DEVELOPMENT

Parking requirements for major new retail, commercial or tourist developments will be assessed on their merits, with particular reference to:

- likely peak usage times;
- the mix of uses and their parking requirements; and,
- likely use of public transport.

Where it is considered that a traffic generating development may have a major impact on the traffic movement within a given locality, Council may require the applicant to arrange for the preparation and submission of a Traffic and Parking Study, by a qualified



professional. In this regard, the Roads and Traffic Authority's publication "*Guide to Traffic Generating Developments*" provides relevant information.

## **8. STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007**

Council is required to consult the New South Wales Roads and Traffic Authority to obtain advice on traffic and safety aspects for certain traffic-generating developments. This consultation is a statutory requirement prescribed by *State Environmental Planning Policy (Infrastructure) 2007*.

The Authority provides this advice through the Regional Development Advisory Committee (Traffic). Membership of the Regional Committee comprises representatives from the Roads and Traffic Authority, the Police Department, and a Local Government Associate nominee. Smaller scale developments are referred to the Local Development Advisory Committee. Membership of this committee comprises representatives from Council, the Roads and Traffic Authority, the Police Department and State Member or his/her representative.

Major Traffic Generating developments being considered by the Regional Committee need to be accompanied by a Traffic and Parking Study, which is to be lodged with the development application following consultation with Council.

## **9. WHAT TERMS ARE USED IN THESE GUIDELINES?**

The terms used in these guidelines are as defined in the Maitland LEP 2011.

In addition the following definitions apply:

**"employees"** is the number of staff on site at any one time during the peak operating period;

**"gross leasable floor area"** (GLFA) means the sum of the areas at each floor of a building where the area of each floor is taken to be the area within the internal faces of the walls, excluding stairs, amenities, lifts, corridors and other public areas but including stock storage.

**"licensed floor area"** (LFA) means all public areas licensed or proposed for licensing under the Liquor Act, 1982 (i.e. bars, lounges, dining, entertainment, games and reception areas).

**"public area"** means all seating, foyer and amenities space

## Appendix A

### Car Parking Requirements for Specific Land Uses

LAND USE	PARKING	COMMENTS
Bed and Breakfast Accommodation	To be assessed for each particular case One off street parking space per guest room or per two guest rooms is generally appropriate.	Council will assess each case on its merits having regard to the location, surrounding traffic generation and streetscape. Parking should be accessible for guests without inconveniencing neighbours or causing safety problems
Business Premises and Office premises	1 space per 40m <sup>2</sup> GFA or 1 space per 45m <sup>2</sup> GFA in Maitland City Centre (Appendix C - Map 1)	Provision should be made for the movement and on-site loading/unloading of service vehicles as appropriate.
Bulky Goods Premises	1 space per 45m <sup>2</sup> GFA	This figure should be used as a guide only - adequate parking should be provided to satisfy the peak cumulative parking requirements of the development as a whole. A comparison survey of a similar development should be provided with the development application. Calculations will be refined according to the specific characteristics of the proposed development. Customer parking spaces should be readily accessible and should not be used for the display of vehicles or other merchandise, waste bins or for loading / unloading of trucks.
Camping ground or caravan park	1 space per site + 1 space per 5 sites (visitors)	The visitor parking area should be appropriately located – adjacent to the entry or office facilities -

		and signposted.
Childcare Centre	1 space per 4 children in attendance or there part of.	Parking must be provided in a convenient location allowing safe movement of children to and from the centre.
Neighbourhood Shop	1 space per 25m <sup>2</sup> GFA	
Drive In Take Away Food Outlets (premises which cater for customers being able to park on-site, get take away service, seating provided for on-site consumption and the addition of a drive through facility)	1 space per 8m <sup>2</sup> GFA <i>plus</i> 1 space per 3 seats	An exclusive area for queuing of cars for a drive through facility is required (queue length of 5 to 12 cars measured from pick up point). There should also be a minimum of four car parking spaces for cars queued from the ordering point. Provision should also be made for car/trailer combinations at strategic locations
Dwelling Houses	Minimum of 1 space	This space is to be located behind the building line as set by Council
Educational establishments	1 space for every employee or staff member <i>plus</i> 1 space for every 30 students over 17yrs for High Schools and 1 space for every 5 students for Higher Education Establishments <i>plus</i> provision for a drop off / pick up area	The parking requirements for each school site may vary. In general a detailed traffic and parking study should be submitted with the application. It is recommended that a school traffic management plan be prepared annually and issued to parents at the start of each school year. Where required by Council, provision shall be made for the access and parking of buses and pick up – drop off areas, which may only need to operate during certain hours.
Group Home	1 space per employee	
Home business	1 space in addition to the dwelling requirements	
Home industry	1 space in addition to the dwelling requirements	

<p>Hospitals, Residential Care Facilities, Hostels</p>	<p>1 space per 10 beds (visitors) <i>plus</i> 1 space per 2 employees <i>plus</i> 1 space per ambulance</p>	
<p>Seniors Housing (a) Self Contained Units (subsidized or State) (b) Self Contained Units (resident funded or Private) (c) Hostel, Residential Care Facilities</p>	<p>1 space for 5 dwellings + visitor parking if there is more than 8 dwellings or the site is situated on a clearway 0.5 spaces for each bedroom + visitor parking if there is more than 8 dwellings or the site is situated on a clearway 1 space per 10 beds (visitors) +1 space per 2 employees + 1 space suitable for an ambulance</p>	<p>This parking provision is only to be used where it can be demonstrated that low car ownership levels will prevail Resident funded developments tend to have higher per unit cost and attract residents with higher financial resources. In these circumstances levels of car ownership are likely to be higher than in subsidised developments.</p>
<p>Industry</p>	<p>1 space per 75m<sup>2</sup> GFA or 1 space per 2 employees <i>WHICHEVER IS THE GREATER</i></p>	<p>This requirement may increase if retailing is permitted on the site, or the office space component is in excess of 20% of the floor area.</p>
<p>Registered Clubs/ Pubs (including sexual entertainment establishments)</p>	<p>Outside the Maitland CBD. 1 space per 10m<sup>2</sup> of public or licensed floor area (bar, lounge, dining room, games room) shall be provided.  Within the Maitland CBD - See Appendix C - Map 2.  1 space per 15m<sup>2</sup> of public or licensed floor area (bar, lounge, dining room, games room) shall be provided. + 1 space per bedroom or</p>	<p>Parking must be provided to satisfy the peak cumulative parking requirements of the development as a whole. Council may consider relaxing this requirement depending on the characteristics of the proposed development. For this purpose a comparison survey of similar developments, in similar locations should be provided with the development application.</p>



	motel unit.	
Multi dwelling Housing / Dual Occupancy	1 space for each one or two bedroom dwelling <i>or</i> 2 spaces for each dwelling containing more than two bedrooms <i>plus</i> 1 visitor space for the first three dwellings and 1 space for every five thereafter or part thereof	Performance criteria outlined in Maitland City Wide Development Control Plan, Chapter Residential Design is required to be achieved.
Hotel or Motel Accommodation	1 space per motel unit <i>plus</i> 1 space per 2 employees	If a restaurant and/or convention space is included, additional parking will be required at the rate for such facilities. Council may review this requirement if it can be demonstrated that the peak demand for parking at each facility does not coincide or if the facilities will primarily serve the motel customers.
Vehicle sales or hire premises	1 space per 130m <sup>2</sup>	Where vehicle servicing facilities are provided, additional off-street parking should be provided at the rate of 6 spaces per work bay. Customer/visitor parking must be readily accessible from the principal road frontage and appropriately signposted and marked. These spaces must not be used for the display of vehicles or other merchandise or for the loading/unloading of vehicles.  Provision should be made for truck manoeuvring to allow for loading/unloading on-site.

Places of public worship/ Places of public entertainment	1 space per 10 seats or 1 space per 10m <sup>2</sup> of public area <i>WHICHEVER IS THE GREATER</i>	
Recreation Facility (indoor/outdoor)	Tennis/squash court – 3 spaces per court Bowling alley – 3 spaces per alley Bowling greens – 30 spaces for the first green and 15 spaces for each additional green. Gymnasium – 7.5 spaces per 100m <sup>2</sup> GFA.	The Bowling Green figure applies only to registered clubs.
Restaurants, take-away food and drink premises	Where located in a 3(a) General Business zone the rate applicable to shops. FOR ALL OTHER AREAS 1 space per 6.5m <sup>2</sup> service area or 1 space per 3 seats <i>WHICHEVER IS GREATER</i>	A food outlet which provides no seating will also be assessed as a “shop”. Additional concessions apply in Central Maitland.
Markets	Minimum of two spaces per stall	Separate provision should be made for stall holder’s vehicles. Where a market is located within an existing shopping centre, consideration will be given to multiple usage requirements and a lower parking provision may be acceptable.
Landscape and garden supplies	0.5 spaces per 100m <sup>2</sup> of site area, OR a minimum of 15 spaces <i>WHICHEVER IS GREATER</i>	Provision should be made for car / trailer combinations at strategic locations
Restricted premises (including used as a sexual aid establishment)	1 space per 25m <sup>2</sup> GFA	
Roadside stall	Minimum of 4 off street parking spaces	
Truck depots/Transport depots	Space for each vehicle present at the time of peak vehicle accumulation on	Off street employee and visitor parking should be provided to satisfy the peak

	the site	demand, as identified through surveys. Under no circumstances is the parking of trucks on a public street acceptable.
Service Stations/ Highway service centres	6 spaces per work bay plus 1 space per 20m <sup>2</sup> GFA of convenience store plus 1 space per 6.5m <sup>2</sup> GFA or 1 space per 3 seats if a restaurant is provided (whichever is the greater)	These additional requirements should be cumulative but may be reduced where it can be demonstrated that the times of peak demand for the various facilities do not coincide. All parking should be clearly designated and located so as not to obstruct the normal sale of petrol and should minimise the potential for vehicular/pedestrian conflict. Consideration should be given to providing adequate manoeuvring space for caravans and B-Doubles.
Sex services premises (e.g. brothels and escort agencies)	1 space per 40m <sup>2</sup> GFA	
Shops (Shops greater than 1000m <sup>2</sup> include supermarkets, department stores, regional shopping complexes etc)	Shops less than 1000m <sup>2</sup> – 1 space per 25m <sup>2</sup> GFA.  In Maitland City Centre – See Appendix C - Map 1 – 1 space per 35 m <sup>2</sup> GFA for new floor space  Shops greater than 1000m <sup>2</sup> – 1 space per 16m <sup>2</sup> GFA	Additional concessions apply to shops in Central Maitland – refer to Section 2.2.4 of DCP Where it can be demonstrated that the time of peak demand for parking associated with the proposed shopping centre and the existing adjacent land uses do not coincide, or where common usage reduces total demand, a lower level of parking provision may apply. If the proposed development is an extension of an existing retail development which results in a total floor area above 1000m <sup>2</sup> , additional

		parking demand could be less than proportional to the increase in floor area.
Shop Top Housing	Generally car parking will not be required for the residential component of the development	Applications to Council must demonstrate due consideration of car parking arrangements, including availability of adjacent parking, access to public transport and/or historical lack of physical access to parking.
Vehicle Body Repair Workshop / Vehicle Repair Station	1 space per 40m <sup>2</sup> GFA or 3 spaces per workshop bay WHICHEVER IS GREATER	
Veterinary Hospital	3 spaces per practitioner plus 1 space per employee	If it can be shown that not all surgeries will be in concurrent operation, consideration may be given to reducing the parking provision for customers. Parking areas for customers are to be located at the front of the development or in a location which will encourage use of the parking area, rather than the adjoining street.
Warehouses or Distribution Centres	1 space per 300m <sup>2</sup> GFA	
Other Uses – not defined	Not Specified	Parking must be provided to satisfy the peak cumulative parking requirements of the development as a whole. For this purpose a comparison survey of similar developments, in similar locations should be provided with the development application.

**Note:** Provision for loading bays for commercial and industrial premises is required. Please see Section 4.0 Loading/Unloading Requirements.



## Appendix B

### Access and Parking Area Design Guidelines

**TABLE 1**

**Service Vehicle Dimensions (Metres)**

Vehicle Type	Length	Width	Max Height	Turning Circle (kerb to kerb)
Station Wagon	4.7	1.9	1.4	11.0
Utility	4.7	1.9	1.4	11.0
Van	5.4	2.1	2.5	13.5
Small rigid truck	6.6	2.1	4.3	14.4
Large rigid truck	11.0	2.5	4.3	21.7
Large articulated truck	17.5	2.5	4.3	16.2

**Note:** For courier vehicles, standard car parking space dimensions are usually satisfactory.

*Source: RTA of New South Wales: Guide to Traffic Generating Development*

#### **Design of Access Driveways**

The Roads and Traffic Authority have adopted seven types of access driveways – type 1 to 5 for cars (or light vehicles) and types 6 and 7 for heavy vehicles. Table 2 shows entry and exit driveway widths and separation between the two where applicable.

Table 3 shows type of driveways to serve numbers of parking spaces.

**TABLE 2****Recommended Driveway Types**

Type	Entry Width (Metres) W	Exit Width (Metres) W	Minimum Separation of Driveways (Metres)	Splay at Kerbline (Metres)	Kerb Return Turnout Radius (Metres) R
1	3-6	Combined*	NA	0.5	-
2	6-9	Combined*	NA	1	-
3	6	4-6	1-3	1	2-9
4	6-8	6-8	1-3	1	2-9
5	Direct feed from a controlled intersection via a dedicated public roadway via an intersection controlled by STOP and GIVE WAY signs, traffic signals or a round-about				
6	8-10	8-10	3	1	2-9
7	10-12	10-12	3	1	2-9

\* Driveways are normally combined, but if separate, both entry and exit widths should be 2.9m minimum

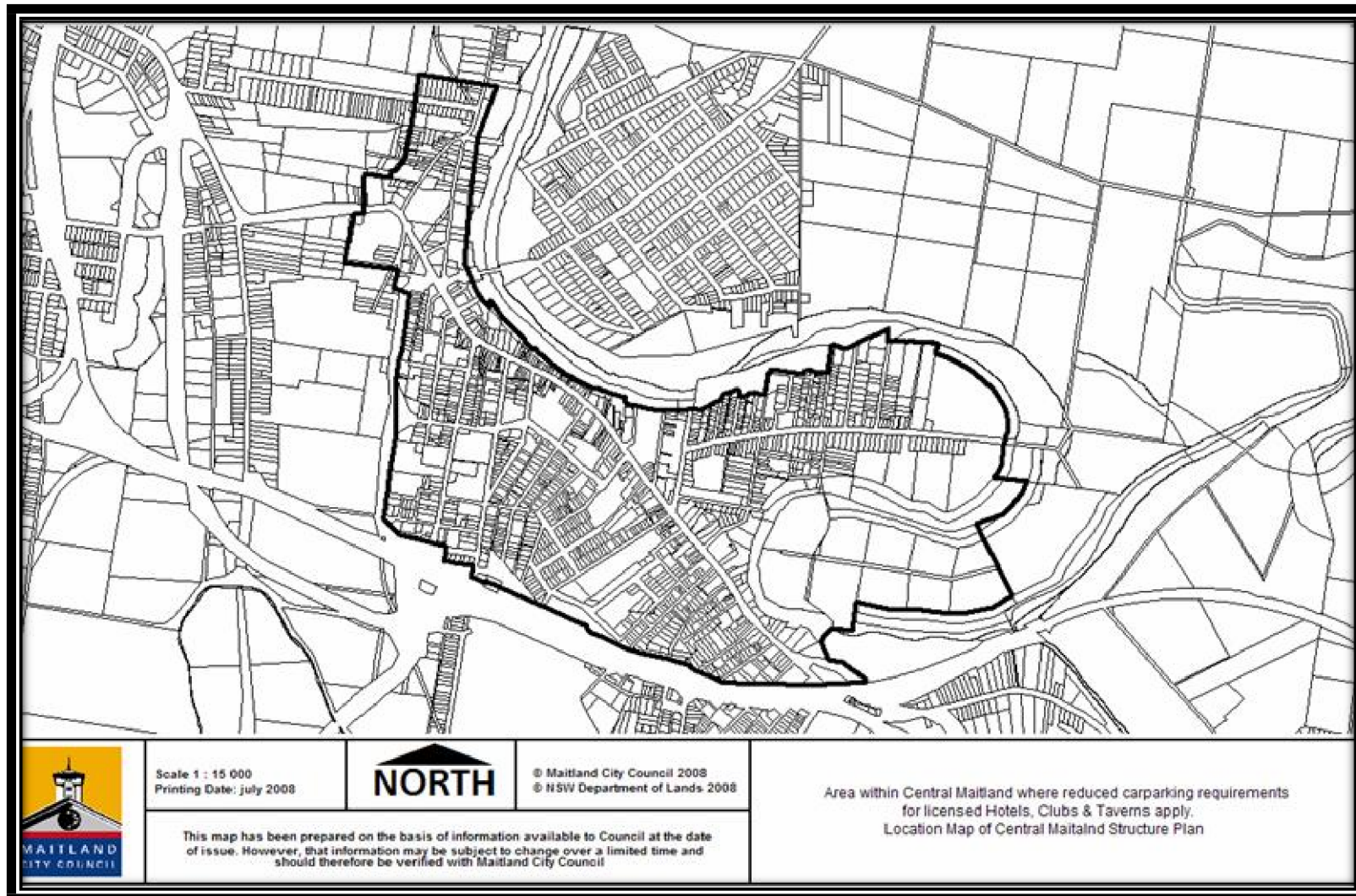
Source: RTA of NSW - Guide to Traffic Generating Developments  
Australian Standard 2890.1-1993 – Parking Facilities

**TABLE 3****Selection of Driveway Type Based on Parking Spaces**

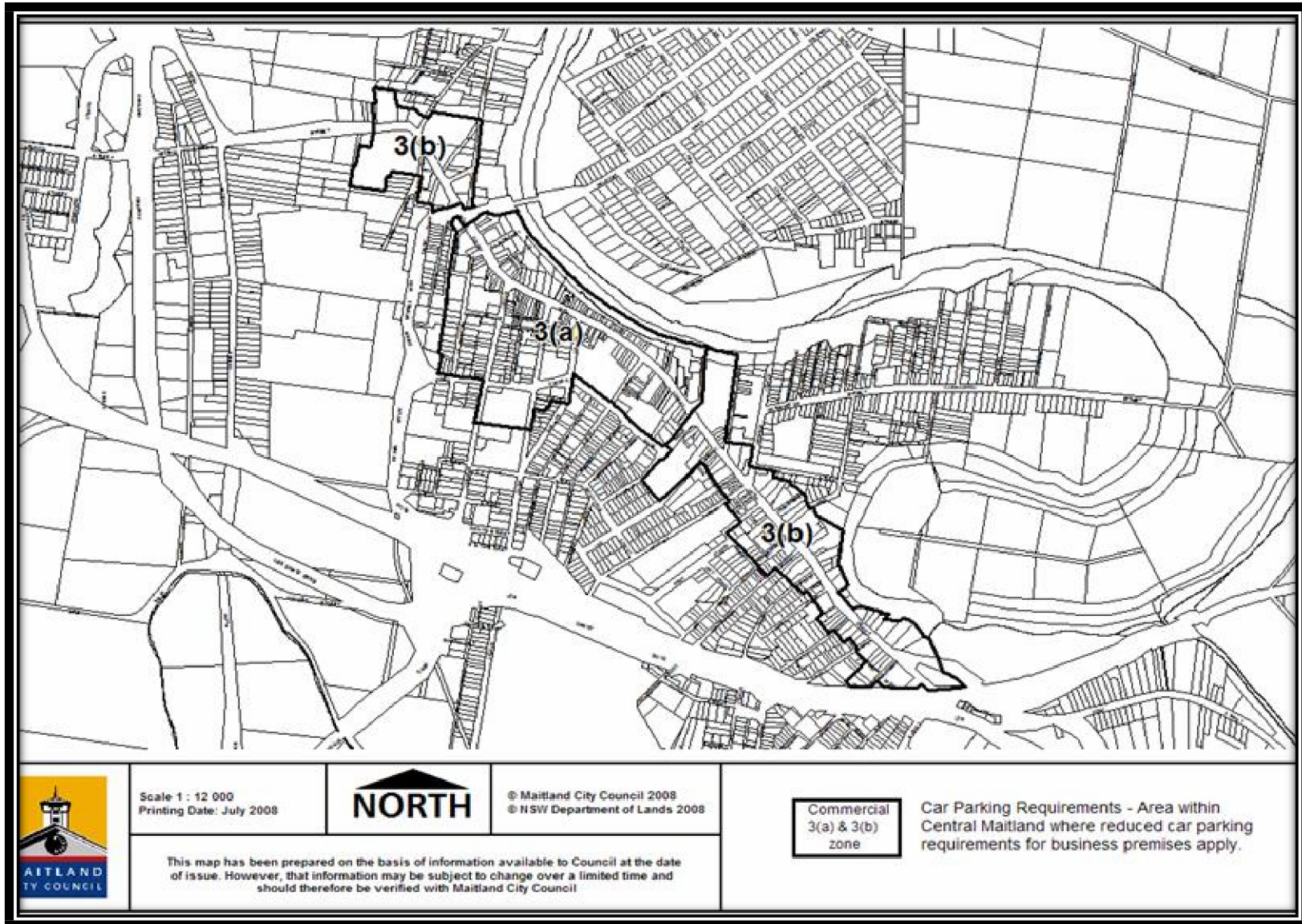
Road Frontage	Number of Car Parking Spaces Served by the Driveway					
	Less than 25	25-100	101-300	301-600	More than 600	Heavy Vehicles
Major	1-2	2-3	3-4	4	5	7
Minor	1	1-2	2-3	3-4	4	6

Source: RTA of NSW - Guide to Traffic Generating Developments  
Australian Standard 2890.1-1993 – Parking Facilities

## Appendix C - Maps



Map 1



Map 2



## C.12 - Crime Prevention through Environmental Design

### 1. Preamble

Crime Prevention through Environmental Design (CPTED) seeks to influence the design of buildings and places in ways that lessen or prevent the incidence of crime. CPTED employs four key strategies:

1. territorial re-enforcement
2. surveillance
3. access control
4. space/activity management.

#### 1.1 Development requirements

##### Objectives

1. The security of buildings and public spaces is achieved through the application of Crime Prevention through Environmental Design principles.
2. Territorial reinforcement is achieved through good quality, well maintained buildings and spaces and the delineation of public and private areas.
3. Good natural surveillance is achieved by the position of buildings and the orientation of uses toward public areas.
4. Landscaping and lighting contribute to the safety of an area.
5. Mechanical surveillance (e.g. CCTV) is only used where passive surveillance cannot be achieved or in isolated, high risk areas.
6. Way-finding, desire lines and formal/informal routes are reinforced by physical and symbolic barriers that channel and group pedestrians into areas.
7. Activity in public spaces is promoted by providing and maintaining high-quality public areas and promoting a diversity of uses that encourage activity throughout the day and night.
8. Perception of crime is minimised by maintenance of public areas and the rapid response to vandalism and graffiti.

##### Development controls

1. The following developments shall include a detailed Crime Prevention through Environmental Design assessment that is prepared by an accredited person.

- New centres
- Mixed use residential/commercial development
- Medium and high density residential development
- Subdivisions involving newly developing areas
- Parks and open space or publicly accessible areas
- Community uses
- Sport, recreation and entertainment areas
- Other high use areas or developments where crime may be an issue.

2011

# Maitland Development Control Plan



Part D  
Locality  
Plans

# Part D – Locality Plans

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## D.1 Introduction

This Part of the DCP contains specific design requirements for the development of certain Localities within the Maitland Local Government Area. Essentially, this Part collates previously adopted DCPs prepared for residential and rural-residential estates across the LGA. These DCPs were necessary to ensure that development outcomes responded to the natural and man-made constraints of the site. In some areas, constraints analysis has identified specific environmental qualities that warrant sympathetic development outcomes including conservation.

The Locality Plans provide a framework that enables development potential to be realised for a specific Locality while recognising the need to integrate the development of these sites within existing urban areas, or within rural landscapes.

**Council may request the preparation of a Locality Plan before it will assess a development application for subdivision of land, in circumstances where the land is subject to environmental constraints and/or more than one land parcel or ownership is involved.**

The strategic planning undertaken in the preparation of these previous DCPs has informed the preparation of the Maitland LEP 2011, particularly in the allocation of land use zones, minimum lot sizes for subdivision and dwelling entitlements, where relevant.

Each Locality Plan contains a Locality Statement that provides the local context for assessment of development within these areas.

The following Statement of Intent describes the desired residential densities for the various land use zones.

*NOTE: Development within these localities must still have regard to the general guidelines contained in the preceding parts of this DCP. Where there is an inconsistency, Part D will prevail.*

## Statement of Intent

A number of the Locality Plans include a mixture of residential densities. Residential density contributes to the establishment of a recognisable urban character within a particular locality and reflects the development capabilities of the land. Varying residential densities by the use of minimum lot sizes for subdivision also provides the general public with an increased housing choice and diverse property market.

### Large Lot Residential Subdivision and Environmental Living

Large lot residential subdivisions will typically be developed as low density residential areas with large residential lots generally accommodating substantial one or two storey residences. Any dual occupancy development will appear as a single residential building or cluster/complex of buildings. Re-subdivision of existing large residential lots will not occur unless the resultant lots are consistent with the lot sizes predominant to the estate.

All lots will be provided with a full range of services – reticulated sewer (or equivalent to the requirements of the Hunter Water Corporation and Maitland Council), water, electricity and telecommunications. . A variety of both energy efficient design and building materials will occur and will result in a built environment that integrates effectively with the natural/physical characteristics of the land. Major drainage lines will be retained in their natural form where possible and the layout of the subdivision will respect the topography of the land.

Non-residential use of land will not be widespread and will be of small scale with negligible impact on the environment and amenity of the area. A high value will be placed on retaining existing vegetation and the development of individual lots, over time, will see the establishment of additional landscaping and an improvement in vegetation diversity over the subdivision estate.

The street system and the location of individual access drives will optimise both convenience and safety for the community and stormwater from roads, driveways and building structures will be managed to ensure a high standard of water quality as well as minimising the potential for erosion and sedimentation.

### Residential Subdivision

These subdivisions will be developed as typical residential areas with a range of lot sizes that reflect the constraints across the site. Individual lots will generally accommodate one or two storey residences. Re-subdivision of existing residential lots will not be encouraged and medium density housing or dual occupancy proposals should ensure that potential impacts related to privacy, solar access, visual amenity, traffic management and its suitability in relation to the form of adjoining development have been taken into account.

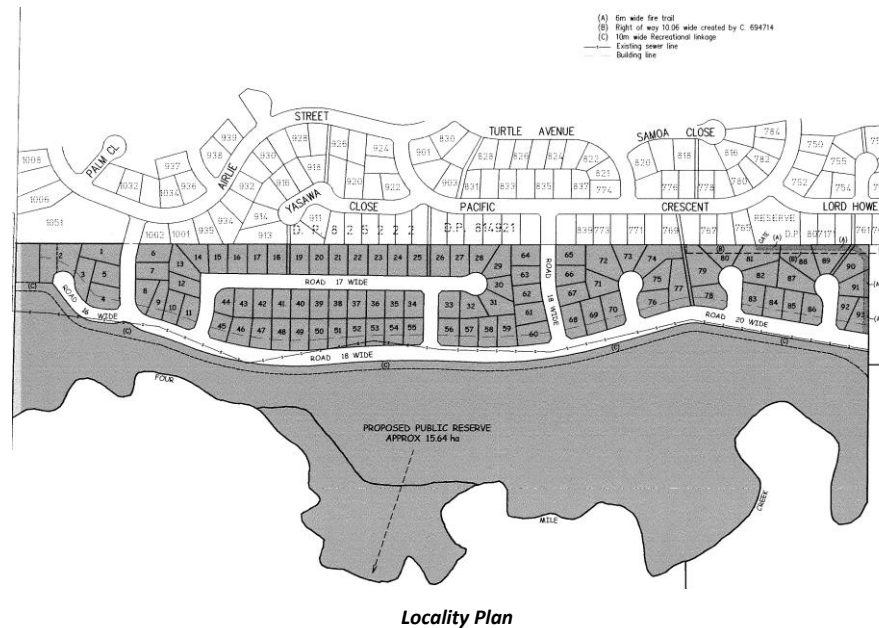
Re-subdivision of existing residential lots where proposed, shall ensure that the resultant lots are consistent with the lot sizes predominant to the immediate precinct in which the parent lot is located. Smaller lots (approaching minimum lot size) will occur in specific clusters or precincts which are nominated at initial subdivision stage. Such intensive development should be located within walking distance (approximately 400m) of activity nodes such as schools, shops, recreational facilities, and regular public transport routes, based on Neighbourhood Planning Principles.

All lots within the subdivision will be provided with a full range of services – reticulated sewer (or equivalent to the requirements of the Hunter Water Corporation and Maitland Council), water, electricity and telecommunications. A variety of both energy efficient design and building materials will occur and will result in a built environment that integrates effectively with the natural/physical characteristics of the land. Major drainage lines will be retained in their natural form where possible and the layout of the subdivision will respect the topography of the land.

Non-residential use of land will not be widespread and will be of small scale with negligible impact on the environment and amenity of the area. A high value will be placed on retaining existing vegetation due to its flora and fauna conservation value and the development of individual lots, over time, will see the establishment of additional landscaping and an improvement in vegetation diversity over the subdivision estate.

Reserves and road layout will provide linkages for pedestrian/cycleway purposes throughout the estate and will provide connection to key facilities within and/or at the perimeter of the subdivision. The street system and the location of individual access drives will optimise both convenience and safety for the community (both vehicular and pedestrian) and stormwater from roads, driveways and building structures will be managed to ensure a high standard of water quality as well as minimising the potential for erosion and sedimentation.

## D.2 Ashtonfield South



### 1. Locality Statement

The Ashtonfield South Locality comprises a parcel of cleared and semi cleared land lying south of an existing residential area. Located south of the subject land is an area of bushland stretching either side of Four Mile Creek. The vegetation is identified as Lower Hunter Spotted Gum Ironbark Forest and Alluvial Tall Moist Forest. A Flora and Fauna Survey and Threatened Species Assessment were prepared on the Locality and bushland to the south. The vegetation within the Locality and the adjoining bushland provides habitat for the Squirrel Glider and requires special considerations. The majority of the recommendations from this report have been incorporated into the Locality Plan. However, individual assessments will still be required for development of the site.

The Locality Plan also recognises the proximity of the Four Mile Workshop to a number of proposed lots, and incorporates recommendations from the Environmental Noise Assessment (Advitech, 2004) to mitigate any potential noise impacts. The report notes that the potential noise impacts are most likely to occur after 7pm, when background noise levels from the highway traffic noise and the surrounding residential community decrease.

The Locality Plan provides for the development of up to 95 dwellings. Future development of the subject land will involve the creation of approximately 15 hectares of bushland reserve to provide for the long-term management and conservation of an area of native vegetation. This reserve also forms an important element in the linkage pathway along Four Mile Creek.

The development provides an opportunity for Council to improve the quality of existing urban stormwater emanating from the existing residential development adjoining the



subject site. It will be incumbent on the developer of the land to manage existing stormwater flows across the site so as to ensure discharge into Four Mile Creek complies with Council's standards.

Council anticipates the creation of a high quality residential estate that is environmentally sustainable and forms a harmonious extension to the existing urban fabric.

## 2. Design Principles

- P1 The development will be designed to maximise tree retention in the wooded portions of the Locality, through subdivision design (including varying lot sizes) and siting of built forms.
- P2 The development will provide adequate measures to ensure the protection of downstream water bodies and waterways from increases in water borne pollution and rate of runoff.
- P3 The development will respect the proximity of the Four Mile Workshop by incorporating noise mitigation strategies for the potentially affected lots.

### 2.1 Design Requirements - Subdivision

#### Access and Traffic

1. Access to the Locality is to be constructed off the two existing access points and the road pattern is to provide a link between these two points as indicated on the Locality Plan.
2. Pedestrian and cycle paths should be constructed in locations generally shown on the Locality Plan and should provide direct routes for movement between the existing residential development and the open space/bushland areas.
3. A defined pedestrian pathway (1.5m wide gravel - walking trail) should be constructed extending generally along the northern boundary of the Environmental Management zoned land to form a circular route for pedestrians. The precise location of this pathway is to be undertaken in consultation with Council's Recreation Services Section prior to the finalisation of engineering plans.
4. Special pavement and landscape materials may be used to distinguish different street functions.
5. Pedestrian pathways and road design/treatment shall be sympathetic to the need to retain native vegetation. All pathways connecting to the existing street network shall be identified as pedestrian/cycle links and constructed to Council's requirements.
6. All costs associated with the construction of roads within the site are to be borne by the developer. This may include, subject to further investigation,

- the upgrading of the acceleration lane at the SH9 New England Highway – South Seas Drive intersection.
7. The engineering/landscape plans should incorporate the design of a vehicular barrier along the edge of the roadway so as to restrict motorised vehicles from entering the Environmental Management zoned land.

#### Stormwater Drainage

8. All surface and stormwater from the development on the residential zoned land is to be collected and treated in the stormwater management system prior to release into watercourses in the Environmental Management (E3) zoned land. Council may consider water quality and detention facilities located within the E3 zone, provided that it can be demonstrated that there will be no significant adverse medium or long term impacts on the natural drainage lines and riparian habitat values of Four Mile Creek.
9. Where stormwater is to travel to natural watercourses over adjoining land, suitable easements for drainage may be required.

#### Flora and Fauna Protection

10. Further development of the land for subdivision and residential development will need to demonstrate consideration of the recommendations of the Ecological Assessment (HWR Ecological, May 2005) and undertake further environmental assessment in accordance with the requirements of the EP&A Act 1979.
11. Where possible, understorey vegetation and those trees identified as potential habitat trees should be retained. Where such trees are required to be removed, an ecologist is to be engaged to be present to supervise tree removal. Any hollows removed are to be retained and attached where possible to large trees located in the E3 zone. Where hollows cannot be recovered, artificial nest boxes are to be provided.

*Nest boxes are best erected before the annual dispersal of newly independent young. In this area, boxes should be erected in winter or early spring (Menkhorst 1984). Box usage appears highest at sites with few natural hollows provided that hollow-using species occur nearby. Boxes should be placed on the trunk or major branch of a tree and not in fork. The preferred method of attaching nest boxes to trees is outlined in Menkhorst (1984). Suckling & Macfarlane (1983) and Menkhorst (1984) recommended that nest boxes for Sugar Gliders be clumped at densities of three to five per hectare (often as close as 20 metres) with about 150 to 200 metres between clumps. Nest box durability can be increased through the use of rot-resistant timber, liberal use of caulking compound, primer, undercoat and flat outdoor acrylic paint and regular maintenance (Menkhorst 1984). Nest boxes should be erected prior to habitat removal within the Four Mile Creek Corridor, in order to provide immediate nest site compensation for any displaced*

*animals. Squirrel Glider nest boxes should have an entrance diameter of 5 - 7 cm; and a depth of 18 - 48 cm.*

12. Wherever lopping provides an appropriate option to tree removal to preserve community safety and retain habitat features, this should be undertaken. Through appropriate lopping, the ecological features of retained habitat tree can be conserved, while minimising safety risks associated with these trees.
13. An information brochure for new landowners is to be prepared by the proponent setting out the sensitivity of the adjoining bushland, the flora and fauna species which are likely to inhabit the area, appropriate management of domestic cats and dogs, and a list of native species which are suitable food trees for native fauna. Information on access to the bushland and responsible use by residents should be included. Details on bushfire risks would also be appropriate. A copy of the brochure is to be submitted to Council prior to the release of the linen plan of subdivision. The brochure is to be provided to all prospective purchasers of land.
14. The information brochure to landowners should highlight the risks posed to wildlife by cats. Controls on the keeping of cats may involve encouraging cat curfews and responsible ownership, or complete prohibition of cats from the development. Cats are known to be a significant predator of Sugar Gliders, and other fauna, including threatened species.
15. There is potential for Koalas to be present on the site. If Koalas are detected during the construction phase of the development, all clearing work is to cease and the NPWS and Council be notified. Clearing work should not resume until the local population has been investigated, and measures devised and adopted to protect habitat.
16. Site clearing works should be restricted to areas required for roads and infrastructure, removal of unsafe trees, and those trees and vegetation likely to be removed during home building.

### Landscaping

17. Landscape/tree planting plans, after consultation with Council's Planning Staff, are to be lodged for approval as part of the application for the development of the land.
18. The retention of existing established trees, particularly habitat trees, shall form part of any plan.
19. The denuded areas of E3 zoned lands, or areas disturbed through road and drainage construction, shall be rehabilitated with suitable locally indigenous species (see Appendix 1 of Ecotone's Flora/Fauna Assessment). The use of Grey Gum, Swamp Mahogany and Green Wattle together with other species are recommended.
20. Denuded portions of the subject site which are not required for infrastructure and which occur outside private lots are to be landscaped and revegetated using suitable locally indigenous species. The use of Koala food trees such as Grey Gum and Swamp Mahogany are recommended. Swamp Mahogany is also a suitable winter feed tree for the Squirrel Glider. The

shrub (Green Wattle) is a known Squirrel/ Sugar Glider feed tree (the Wattle is incised for Gum). These species should be a component of the landscape plantings.

21. Landowners are encouraged to plant trees well before any development takes place to give the landscaping an immediate impact.

### Bushfire Management

22. 22 Any required Asset Protection Zones provided for development shall not encroach into the E3 zoned land, with the exception of the 10m wide Recreational Linkage.

### Noise Impacts

23. 23 Proposed Lots 77 to 93 may be subject to noise impacts from the nearby Four Mile Workshop. In order to minimise potential noise impacts, dwellings should be designed to be in accordance with the noise minimisation guidelines as set out in Appendix A.
24. 24 A vegetation barrier should be established between the proposed residential area and the workshop. In addition, any future subdivision of the land should include an investigation on the potential for an acoustic barrier adjacent to the Four Mile Workshop.

## **2.2 Design Requirements - Subdivision**

### Setbacks

25. Setbacks from rear boundaries of existing dwellings and proposed roadways, may be required to be greater than the minimum to ensure that the residential amenity and privacy of the area is maintained and also provide for Bushfire Asset Protection Zones in those areas adjacent to Bushland.

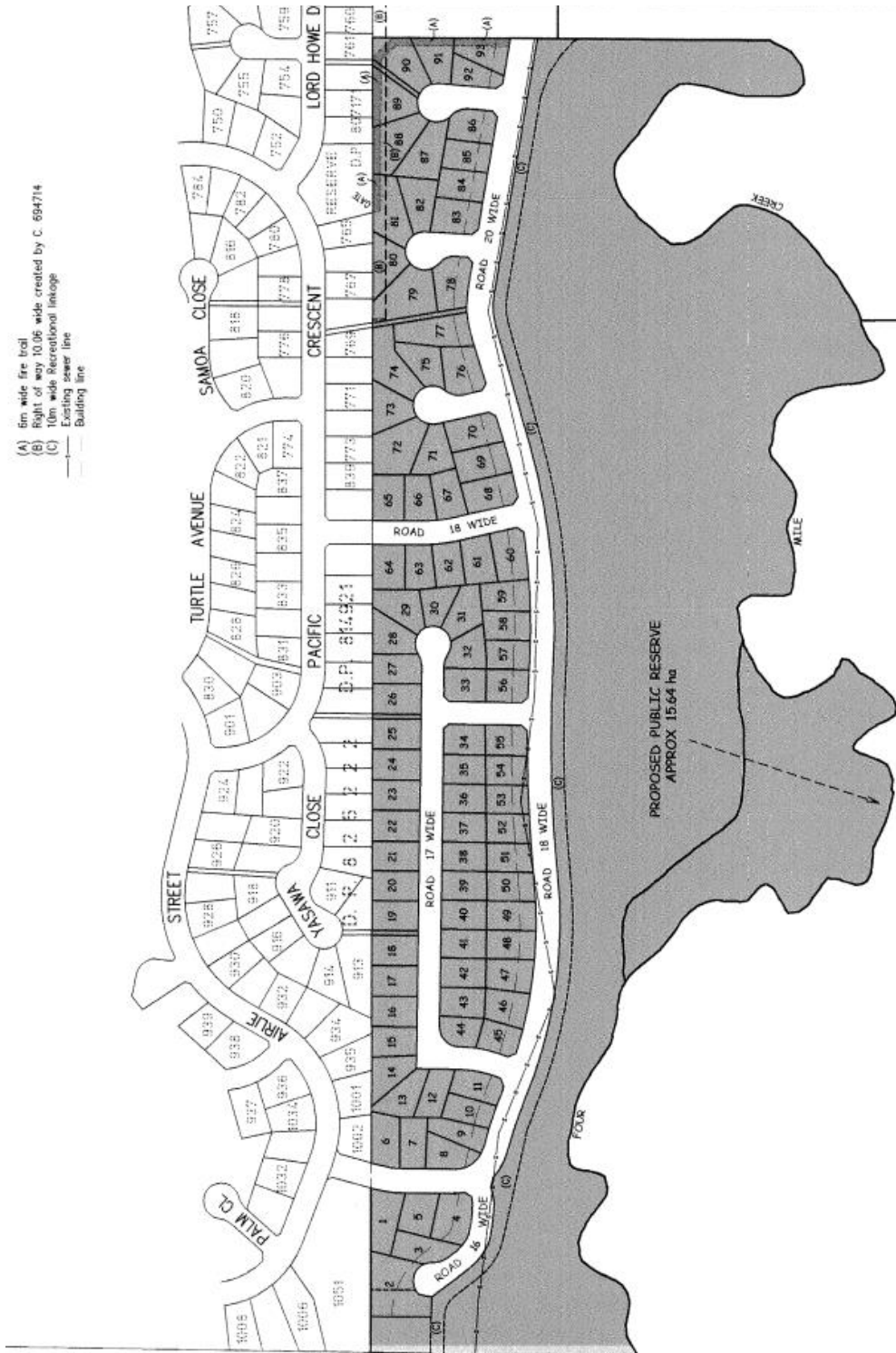
### Height and Appearance

26. Single storey dwellings are preferable having regard to the site constraints. Two storey townhouses, semi-attached and detached dwellings will only be considered if the applicant demonstrates to Council's satisfaction that adequate consideration has been given to the following:
  - a) The existing density of the surrounding land,
  - b) The external appearance of the proposed building,
  - c) Distance to adjoining dwellings and their private open space areas, and
  - d) The provision of landscape screening.

### Landscaping



27. Existing dwellings should be appropriately screened from the new development particularly with buffer landscaping.
28. Landscape plans are to be lodged for the approval of Council as part of an application for the development of the land.



## APPENDIX A

# NOISE MINIMISATION GUIDELINES

### Noise Control Measures

Options to be considered include:

- The construction of a noise barrier between the workshop and the residential area; and
- The design and construction of residential dwellings with good sound attenuation properties.

### Barriers

Barriers can be installed between houses and the workshop to reduce noise levels received at the residence. These could include barriers such as outdoor living areas, garages, gardens, fences or mounds. Where fences or mounds are used, it is recommended that they be placed close to the noise source or receiver. If built halfway, the noise tends to pass over the barrier.

### Vegetation

Although vegetation is not as effective in reducing noise levels as a solid barrier, it has the advantage of softening the amenity of the site and can also act as a wind break and reduce dust levels in the area. Ideally, vegetation should be 15 to 30 metres deep and 4 to 5 metres high, with dense foliage. Evergreen and drought resistant vegetation is preferred, because it is effective all year round. Although a vegetative area is currently present, this could be supplemented with additional planting within the natural drainage area between the workshop and proposed residential area.

### Building Design and Orientation

The workshop is to the north east of the proposed residential subdivision. To assist in achieving a reduction in noise levels within dwellings in the proposed residential subdivision less noise sensitive rooms such as the garage, bathroom, laundry and kitchen could be situated closer to the noise source, to act as a shield to more sensitive rooms such as bedrooms, living rooms and studies. Minimising the number of doors and windows on the noisy side of the house also assists in reducing noise levels.

### Building Materials

The use of building materials which insulate or absorb sound is an effective method of minimising noise in the home. Most ceiling and roof insulation provide reasonable insulation against noise, although ventilated eaves can decrease these insulation properties. The addition of thermal insulation in the ceiling can reduce noise levels by

around 7 to 8 dB. Thermal insulation can be added to the eaves in houses with brick veneer construction to reduce noise entering at the weakest point where the outer wall meets the eaves.

Dwellings of double brick or concrete construction have better noise insulation properties than other methods of construction. The installation of 100mm thick thermal insulation bats placed between the wall studs can further decrease noise levels by approximately 5 dB.

It should be noted that the insulation capacity of any wall is severely reduced by the installation of doors, windows or ventilators with a lesser insulation capacity, or if the doors or windows are open.

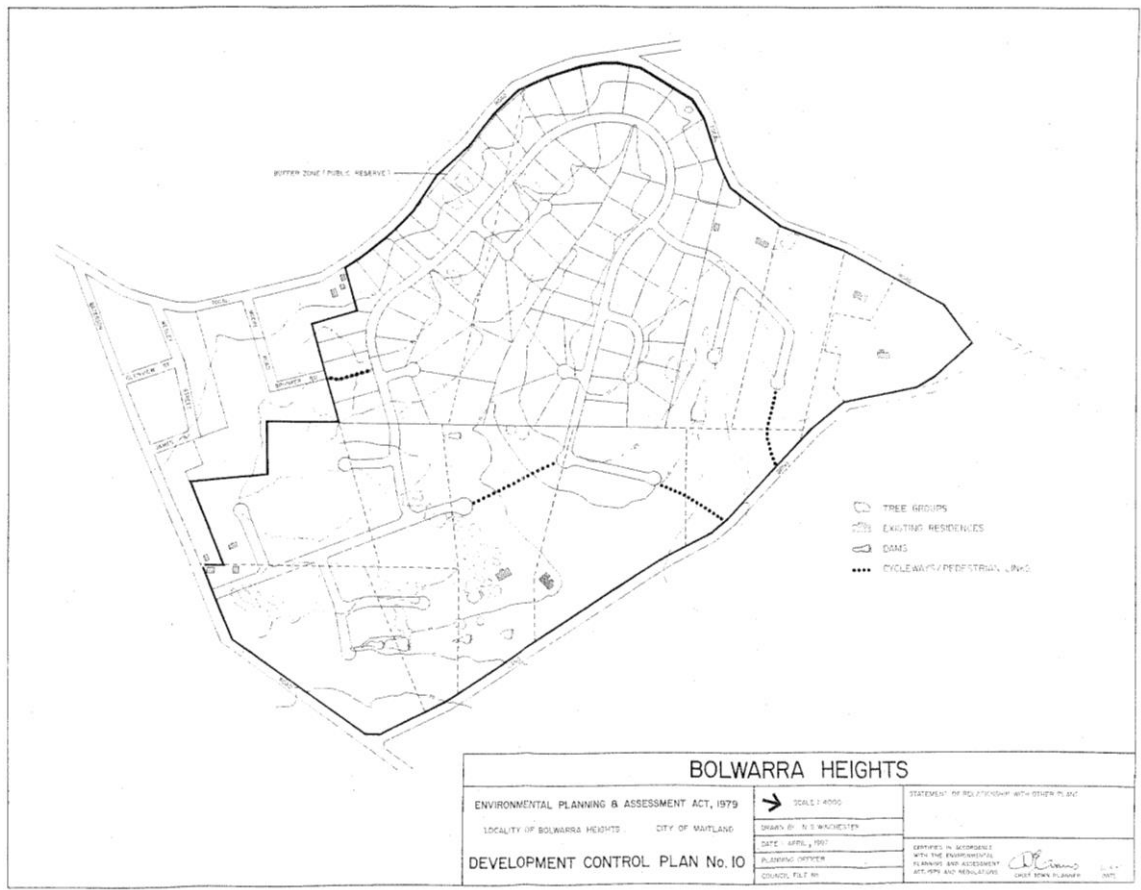
To reduce the effect of windows on noise levels in a room, the window may be sited on another external wall, which is not directly in line with the noise source. Double glazing can also reduce noise penetration. External doors should be 'solid core' and well sealed around the frame and closing surfaces.

Floors in most types of construction do not usually need to be modified, however in conventional weatherboard houses, enclosing the underfloor area can assist in reducing noise levels inside the house.

### **Room Furnishings and Fittings**

Using sound absorbing furnishings and fittings, such as heavy curtains, carpets and soft furniture can also reduce the effect of workshop noise.

# D.3 Bolwarra Heights



## 1. Locality Statement

The land is located in Bolwarra Heights and is bounded by Tocal Road, Lang Drive and Paterson Road. The area sits north of the established residential area of Bolwarra and is characterised by large residential lots generally accommodating substantial single or two storey residences. Any dual occupancy development will appear as a single residential building or cluster/complex of buildings.

Large pockets of vegetation are located in the undeveloped areas of the site, predominately identified as Lower Hunter Spotted Gum Ironbark Forest, which is identified as an Endangered Ecological Community (EEC). A number of drainage paths also run through the site connecting to the flood plain in the east. Future development shall have regard to the retention of natural vegetation and with respect to the natural topography of the land. Additional landscaping and revegetation is promoted to maintain the rural character of the area.

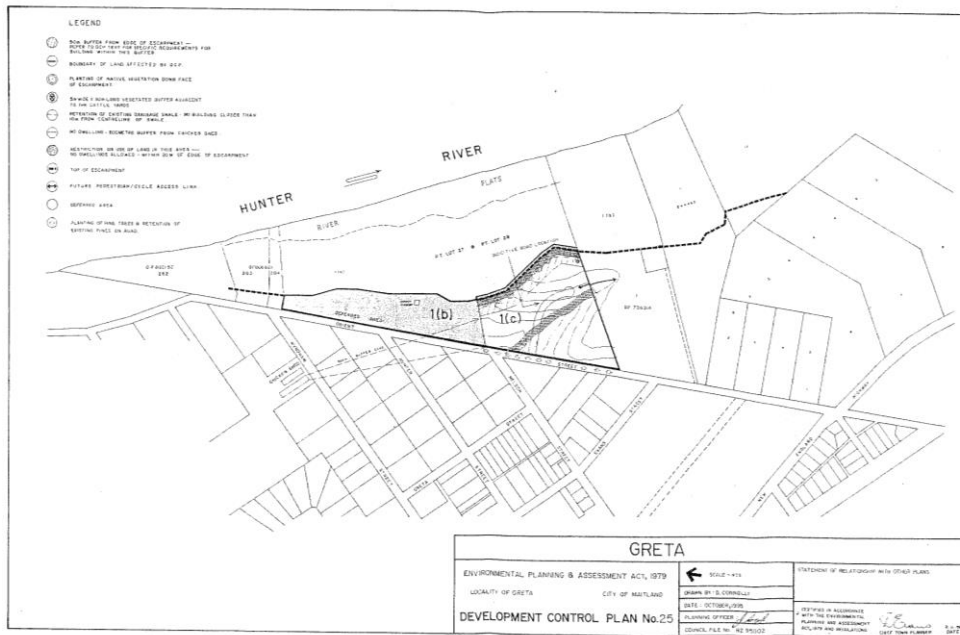


## 2. Design Requirements

1. Major Collector Roads shall be located generally in the position shown on the Locality Plan. Minor roads as shown on the Locality Plan are indicative only. New lot boundaries are to be located at the time of development application and should be based on the analysis shown in the supporting document.
2. Utility Services to all lots shall include reticulated water, electricity, telephone and waste water infrastructure to the satisfaction of the relevant authorities.
3. A comprehensive landscape plan shall be prepared for the subject land. This plan must meet with the approval of Council prior to engineering plans being approved by Council. This plan may be developed in stages consistent with the land ownership pattern of the subject land.
4. The minimum front building setback for the subject land shall be 20 metres. A lesser setback may be permitted only if it can be shown that no other suitable building site is available on the allotment, and that a lesser setback would not detrimentally affect the streetscape. Setbacks may also be required from drainage channels and area subject to flooding.
5. All structures erected on the subject land shall be designed so as to be compatible with the rural character and landscape of the locality. In this regard, particular attention shall be given to the shape, colour and materials of the external surfaces of the structure.
6. Consideration shall be given at the design stage of both subdivision and individual dwellings to the requirements of *Planning for Bush Fire Protection 2006*.



## D.4 Greta (Orient Street)



### 1. Locality Statement

The land is located on the western boundary of the Maitland LGA with access off the New England Highway through Orient Street, Greta within the Cessnock LGA. The land sits on the edge of the escarpment overlooking the Hunter River and across Lochinvar and Luskintyre.

The area is characterised by small rural allotments and small scale rural and agricultural activities. The site is intended to be primarily developed for large lot residential living with lots generally accommodating single detached housing.

### 2. Design Principles

- P1 The siting of buildings and building form, materials and colours will be combined to ensure the visual impact of the development is kept to a minimum in this visually sensitive escarpment area. The rural character of the Locality will be maintained as well as views to and from the Hunter River and surrounding Luskintyre and Greta areas.
- P2 Development outcomes for the Locality will have regard to the natural and man-made constraints of the land, in particular:

*Natural constraints include:*

- a) Potentially unstable land near the edge of the steep escarpment;

- b) The natural drainage swale through the site. Disturbance of this drain may present problems and inappropriately located buildings may suffer local flooding and/or drainage problems; and
- c) Potential for high visual impact of development along the escarpment and on rural vistas and scenic quality generally.

*Man - made constraints include:*

- a) The need to maintain the rural and heritage characteristics of the locality;
- b) The proximity of a poultry farm to the north-west of the site;
- c) The proximity to an old disused piggery to the west of the site;
- d) The proximity of the cattle yards to the south of the site; and
- e) The standard and layout of the existing local road network.

## **2.1 Design Guidelines – Subdivision**

### Water and Sewerage

1. A reticulated water and sewerage service shall be provided to all lots on the site to the requirements and satisfaction of the Hunter Water Corporation. The Developer shall liaise with the Hunter Water Corporation to ensure that the requirements of the Corporation are met.

### Development Envelope

2. A development envelope is an area or areas designated for the erection of a dwelling-house and outbuildings. Details of Development Envelopes are to be provided with any development application for subdivision, based on a geo-technical assessment of the land, site characteristics and expected user requirements.

As a guide, a development envelope will:

- a) be no closer than 10 metres from the centreline of natural drainage swales;
- b) have a minimum setback of 10 metres from all lot boundaries;
- c) be no closer than 20 metres from the edge of the escarpment;
- d) be accessible to a public road;
- e) have a minimum area of 500 square metres and be positioned to encourage energy efficient housing design; and
- f) respect the privacy of existing and future residences.

### Flora and Fauna Preservation

3. The planting of additional trees will be required where practical.



4. Any fencing which will prohibit the movement of native fauna will not be supported except around swimming pools and small house yards.

#### Landscaping

5. Landscaping shall be in accordance with the general principles illustrated on the Locality Plan and the principles outlined in this plan.
6. Landscape plans are to be lodged for the approval of Council as part of any development application for the subdivision the land. Plantings should be of locally indigenous species unless otherwise specified by Council.
7. Where subdivision of the land is requested, developers will be required as a condition of subdivision approval, to provide the necessary landscaping prior to Council's release of the linen plan.
8. Conditions of consent may specify requirements for the provision of 88B instruments to ensure maintenance of such landscaping. Particular attention will need to be paid to the maintenance of the landscaping within the first 12 months of establishment.
9. The planting of pine trees of similar genus to those already present, shall occur along Orient Street fronting the subdivision in keeping with the theme already established.
10. Shrubs, ground covers and scattered trees shall be planted 10 metres either side of the edge of the escarpment to reduce erosion and maintenance problems and to re-establish a vegetated skyline along the escarpment.

#### Drainage Lines

11. Existing drainage lines on the site should be revegetated wherever possible to minimise any future erosion and salinity problems.

#### Traffic Requirements

12. All costs associated with the construction of roads within the site and the new intersection with Orient Street are to be borne by the developer.
13. The developer shall construct a bitumen sealed road the full frontage of the land to which this Locality Plan applies in accordance with Council's construction standards.
14. Council may consider the need for the construction of a concrete kerb and gutter as part of the subdivision approval process.

15. Pedestrian access - provision is to be made for a walkway/cycleway connecting the lots within the subdivision to land to the south to allow safe passage to future subdivisions and destinations within Greta and surrounding areas. Details are to be submitted for approval with the development application for the subdivision.

#### Development on Deferred land

16. Development or subdivision of land identified as the Deferred Area is subject to further consideration and environmental assessment. The following existing constraints over the land are required to be addressed:
  - a) The operations of the piggery have ceased and rights to reopen have been lost; and
  - b) An assessment of soil on and in the vicinity of the piggery and its associated operations for contamination as a result of these activities has been conducted by a suitably qualified person and any remediation works required have been undertaken.

## **2.2 Design Guidelines – Residential Development**

### Height and Appearance

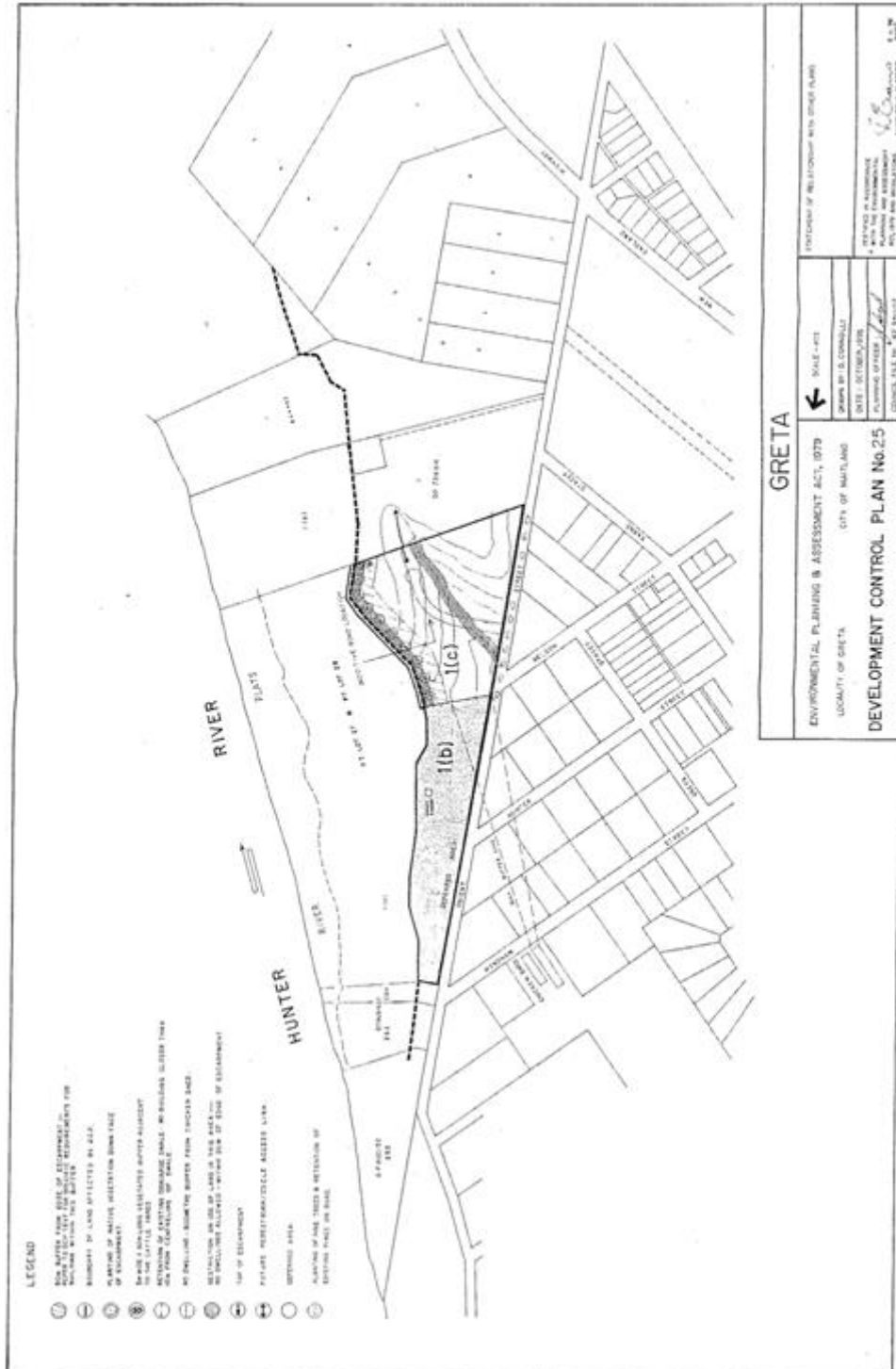
1. All structures are to be designed having consideration to the rural character of the area, the topography, and landscape features of the site. Particular consideration will be given to building location, energy efficient design, form, colour, and construction materials. Details are to be submitted for approval with the development application and/or building application as required by Council.
2. External building materials, including outbuildings and fences located within 50 metres of the escarpment, are to be natural colours in the mid-tonal range or darker, to blend into the natural landscape, and are to be of non-reflective finish.

### Landscaping

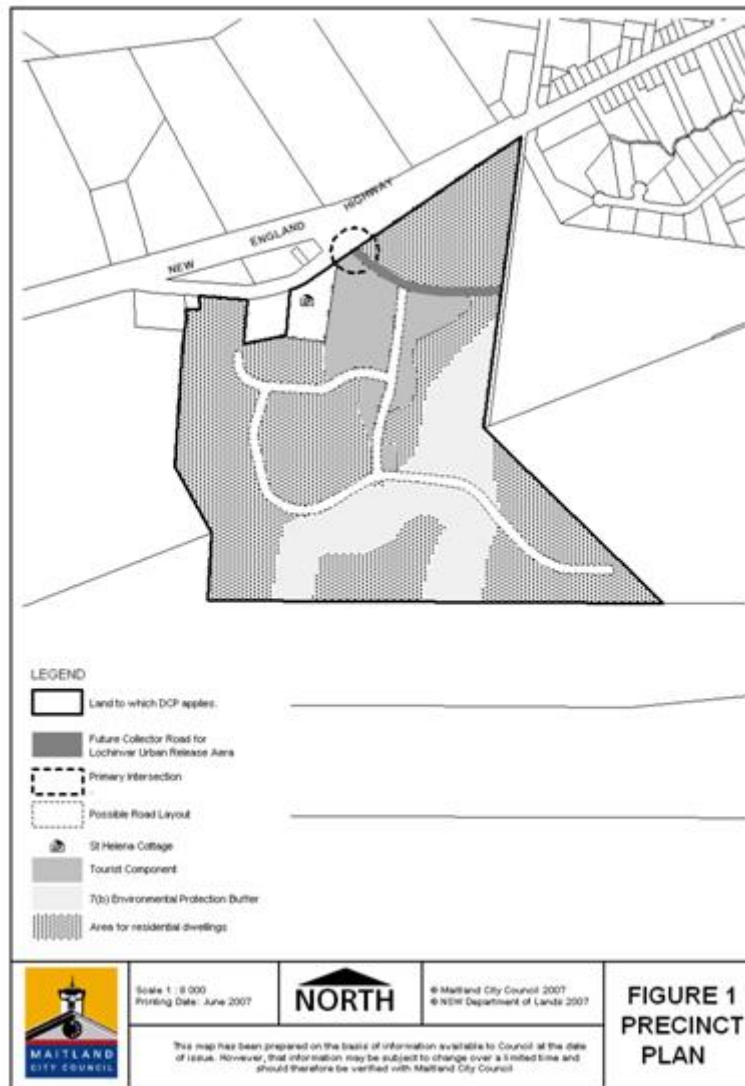
3. Landscaping should be used to create a visual environment consistent with the rural character of the area.
  - Where buildings are proposed within 50 metres of the escarpment, the planting of a backdrop of trees is required to soften the skyline along the escarpment. Planting should include locally indigenous species with mature height in excess of 10 metres.
  - A 5 metre wide and 30 metre long vegetated buffer will be provided along the southern boundary, starting from the escarpment, in order to provide a visual screen from new buildings to the cattle yards. The

buffer will primarily consist of native shrubbery however also include some native trees.

In this regard, a landscaping plan is to be lodged for the approval of Council as part of the development/building application.



# D.5 Lochinvar (St Helena Village)



## 1. Locality Statement

The **St Helena Village Locality** is located off the New England Highway west of Lochinvar and lies on the western boundary of the Lochinvar Investigation Area for future urban growth. This Locality however, has been designed as a unique French-themed village, with a mixture of residential, tourism and viticulture development.

Whilst this Locality provides a vehicular link through to the Lochinvar Urban Release Area, it is otherwise intended to be developed independently.



## 2. Development Objectives and Requirements

All development applications for land to which this Locality Plan applies must address the Objectives and as a minimum demonstrate consistency with the Requirements.

### 2.1 Development staging

#### Objectives

- O.1 To achieve integration of dwellings with tourist accommodation, commercial activities and residential areas.
- O.2 To coordinate the development staging so that the tourist component is retained and is integral to the site context.

#### Requirements

1. The development shall generally be in accordance with the ***St Helena Village Precinct Plan***.
2. A staging plan is to be prepared that provides for the commercial and retail components of the tourist accommodation facility to be completed at the same time, or before, all dwellings.
3. All development is to demonstrate its response to the site and its support of the locality plan and staging plan.
4. All development must enhance the context of the site, strengthen local character and identity and promote a sense of community.
5. Public utilities and essential infrastructure are to be provided in a timely, cost efficient and effective manner.

### 2.2 Transport movement hierarchy

#### Objectives

- O.1 To ensure road design reflects the function of the road, the needs of the road user and connectivity to existing and future development.
- O.2 To provide a safe level of pedestrian and cyclist access to existing and future urban areas, parks and public transport facilities.

#### Requirements

1. An overall transport movement hierarchy shall be established, which must demonstrate major circulation routes and connections in accordance with the Precinct plan.
2. Provision must be made for a road connection to the Lochinvar Investigation Area.

3. A traffic and transport study must be prepared to assess impacts on the New England Highway with recommendation for potential intersection upgrade.
4. A simple and safe movement system for private vehicles, public transport, pedestrians and cyclists with consideration to future urban areas of Lochinvar must be provided.

## 2.3 Landscaping Strategy

### Objectives

- O.1 To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape and is consistent with a gateway setting.
- O.2 To protect and enhance riparian areas and remnant vegetation.

### Requirements

1. A landscaping strategy is to be prepared that provides for the following:
  - Protection of visually prominent locations from obtrusive development
  - Treatment of land fronting the highway to create an attractive appearance that is consistent with the character of the area
  - Creation of a village entry and a strong theme for the site
  - Retention of existing trees wherever possible
  - Enhancement of remnant native vegetation in riparian areas
  - Management of interface with adjoining land that is compatible with the land use and zoning.
2. All development is to be consistent with the landscaping strategy.
3. Drainage lines are to be re-vegetated to enhance visual amenity, prevent soil erosion and help protect the quality of receiving waters. Re-vegetation proposals should include where possible those areas supporting Ecological Endangered Communities (EEC).
4. Advertising structures are to be low-scale, consistent with the character of the area and well-maintained.

## 2.4 Urban Design

### Objectives

- O.1 To ensure that the design and appearance of buildings and the structure of the site do not detract from St Helena Cottage, the local character of the area, and are attractive when viewed from the highway.

### Requirements

1. Any development visible from the New England Highway is to create an attractive appearance by use of building design, layout and landscaping.
2. Development within the vicinity of St Helena Cottage is to be consistent with its setting, context, views and vistas and not impact on its heritage significance.
3. Fences fronting public domain and common areas are to be appropriate to the nature of the area.

## 2.5 Heritage

### Objectives

- O.1 To ensure that development does not adversely impact upon the setting and context of St Helena Cottage

### Requirements

1. A Heritage Impact Assessment is required for development in the vicinity of St Helena Cottage, so as to ensure that development, in the opinion of the consent authority, does not adversely impact upon the setting and context, views and vistas associated with St Helena Cottage.

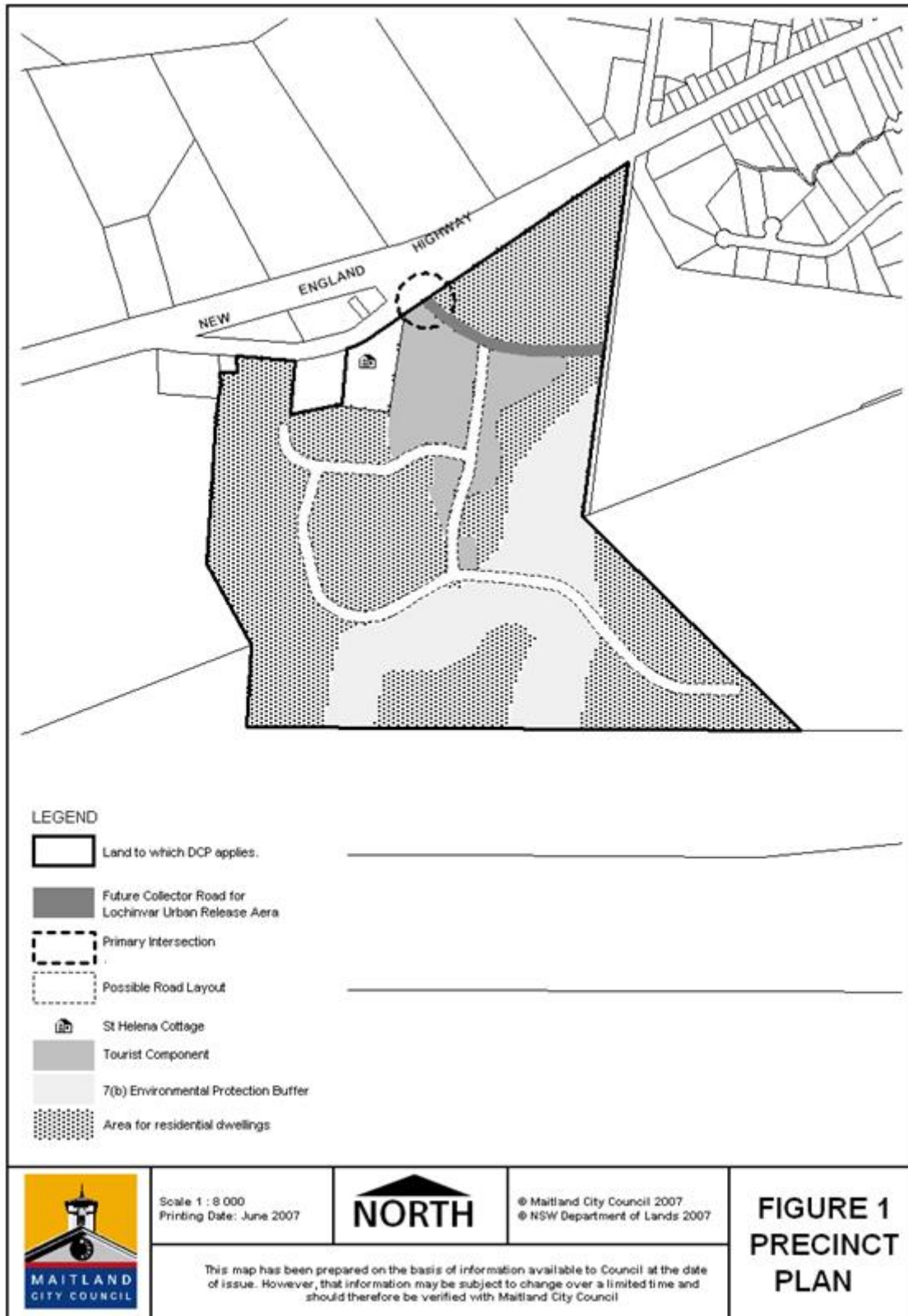
## 2.6 Viticulture

### Objectives

- O.1 To manage the interaction between grape production and residential activities so as to not adversely affect residents or visitors to St Helena Village or residents of adjoining areas.

### Requirements

1. A viticulture management plan shall be submitted with any development application that proposes grapevine planting to address the following:
  - Area of grapevines
  - Proximity to residential dwellings, including future dwellings on site and proposed urban areas adjoining the site
  - Amelioration of noise, chemical drift or odours associated with grape production within a residential environment.
2. All development applications must demonstrate consistency with the viticulture management plan.





## D.6 Louth Park (Waterforde Estate)



### 1. Locality Statement

The land is located south of Maitland CBD along the southern boundary of the Maitland LGA adjoining Cessnock LGA. The site has frontage to Louth Park Road and Mount Vincent Road.

The land is relatively flat and characterised by scattered vegetation. It is surrounded by the Wallis Creek floodplain in the east, the Mt Vincent Waste Disposal Depot in the west, and the Bloomfield Colliery to the southwest. A number of constraints affect the land including flooding, mine subsidence, buffer to the waste disposal facility, and coal mining buffer to Bloomfield Collieries.

The locality is intended to be developed as a low density residential area with large residential allotments. Development is to respect the topography of the land and retain major drainage lines in their natural form where possible. Dwellings are to be located clear of the 1% AEP flood.

## 2. Design Principles

- P1 The siting of buildings and building form, materials and colours will be combined to ensure the visual impact of the development is kept to a minimum in this visually sensitive rural landscape.
- P2 The subdivision design and location of buildings will have regard to the various constraints which affect the land – flooding, mine subsidence, buffer to Council’s waste disposal facility and the coal mining buffer to Bloomfield Collieries.

## 3. Design Requirements

### Flooding

1. Every lot shall include a dwelling site of a minimum of 700 square metres above the appropriate flood level adopted by the Council at the time of application.
2. Every allotment shall have flood free access.
3. The floor of every dwelling shall be a minimum of 0.5 metres above the appropriate flood level adopted by Council at the time of application.

### Mine Subsidence

4. This clause applies to the area shown on the Locality Plan as ‘Mine Subsidence Constraint’. The land affected by this clause has been subject to shallow underground mining and mine subsidence may occur. Development of this area may therefore be constrained.
5. No improvements are to be erected between the 20m isopach and the extent of mine workings as shown on the Locality Plan.
6. Development between the 20m and 30m isopachs is to be limited to lightweight-type structures only (clad frame), to the requirements of the Mine Subsidence Board.
7. Any application for subdivision in the area designated as “Mine Subsidence Constraint” shall be accompanied by a geotechnical report providing:
  - site classification of building lots
  - subgrade investigation
  - pavement design
  - an assessment of the exact location of workings and filled open cut areas to ensure that every lot has a suitable site for the erection of a dwelling
  - other requirements of the Mine Subsidence board, as necessary.
8. Development/building proposals shall comply with Mine Subsidence Board requirements.

### Coal Mining Buffer Area

9. No dwellings may be erected within the area shown as “Coal Mining Buffer Area” on the Locality Plan.

### Waste Disposal Buffer Area

10. Consideration must be given to that part of the land shown hatched and nominated on the Locality Plan as Waste Disposal Buffer. Restrictions may apply to development which will support human habitation located within 500m from either the existing or future tipping face of the waste disposal depot located within this buffer.

### Landscaping

11. The landscape masterplan for the site will create an ordered, open rolling landscape that preserves views from surrounding properties and provides an attractive outlook from the rural-residential areas. The low lying area in the north-western section of the site, shown as an environmentally sensitive area on the Locality Plan, shall be developed as a wetland area to provide sanctuary for native birds, in particular, by redesigning formal areas into an informal, natural state.

The perimeter of the site bounded by roadway will have clump and windbreak planting to buffer westerly winds and provide a living hedge to the development. Strategic open view sections will be left to give selective views to passers-by of wetlands and distant views of rolling rural-residential development.

The boundaries adjoining other rural-residential development areas will be selectively planted with low growing varieties to preserve views to, and from, the site.

#### **Specifically:**

- (i) **Wetland areas within the Environmentally sensitive area.** The species should withstand waterlogging and periodic inundation. The soil is heavy and deep.
- (ii) **Windbreak.** A range of species, from low shrubs to tall trees will be selected. A three-row windbreak is recommended, with shrubs forming the roadside (west side) planting, melaleucas and casuarinas forming the middle road, and eucalypts and other tree species comprising the third row. The windbreak crosses all soil types, so species should be placed according to their suitability for the soils.

- (iii) **Clumps.** These plantings will be placed on the flood-prone areas of the rural-residential allotments and scattered in the lower open areas. They should be diverse in colour, texture, height and flowering.
  - (iv) **Contour bank/catchment drain.** A low contour bank is to be constructed using spoil from the pond excavations. The bank will follow the lower contour of the rural-residential allotments, and plantings will be made on the bank to form a low screen.
  - (v) **Avenue.** This feature area will form the entrance to the estate and will be a single row formal planting of Hills Weeping Fig and Melaleucas alternatively. The bridge will be flanked on either side by four feature Moreton Bay Figs.
  - (vi) **Feature trees.** These will be planted in the vicinity of the entry to the Subdivision, and in other areas in the landscape to provide a contrast to the eucalypt/native plants. No introduced species will be planted in the wetland areas of the estate.
  - (vii) **Kerbside plantings.** The plantings in these areas will provide a wide range of colours and foliage contrasts to enhance the estate. Species chosen will be both bee and bird attractants and represent the best selection of native trees and shrubs proven for ridge soil plantings.
  - (viii) **Boundary buffer plantings.** A 10 metre wide buffer area will be planted with low shrubs to prevent structures being erected closer than 10 metres to adjoining property boundaries. Low planting will allow views across this buffer area and any tall planting in it will be positioned selectively so as not to interfere with views from adjoining properties.
12. Existing trees are to be retained where possible.
  13. Landscape plans for separate stages of subdivision shall adhere to the landscape master plan approved by Council for the site, and are to be prepared by a professional skilled in landscape design.
  14. In the case of the subdivision of the land to which this plan applies, landscape plans are to be lodged for the approval of Council as part of the development application for subdivision of the land. Developers will be required to provide landscaping, as deemed appropriate by Council, prior to Council's release of the linen plan.
  15. In the case of the development of the land for the purpose of permitted uses, landscape plans are to be lodged as part of the development application for the approval of Council. Conditions of consent are likely to impose controls on landscaping.
  16. Conditions of consent may also specify requirements for the provision of 88B or 88E Instruments, or relevant alternatives acceptable to Council, to ensure maintenance of landscaping and exclusion of stock from the environmentally



sensitive area. Particular attention will need to be paid to the maintenance within the first 12 months of establishment.

#### Water Management and Sedimentation/Erosion Control Plan

17. The natural drainage lines on the site will be utilised to the maximum extent possible as part of a stormwater and runoff drainage management system which uses soil conservation measures, including detention basins, to alleviate stormwater peaks and retain sediments and pollutants.

#### Water Supply and Sewerage

18. A reticulated water supply and sewerage service shall be provided to all lots on the site to the requirements and satisfaction of the Hunter Water Corporation.
19. The Developer shall liaise with the Hunter Water Corporation to ensure that the requirements of the Corporation are met.

#### Road Pattern/Traffic Issues

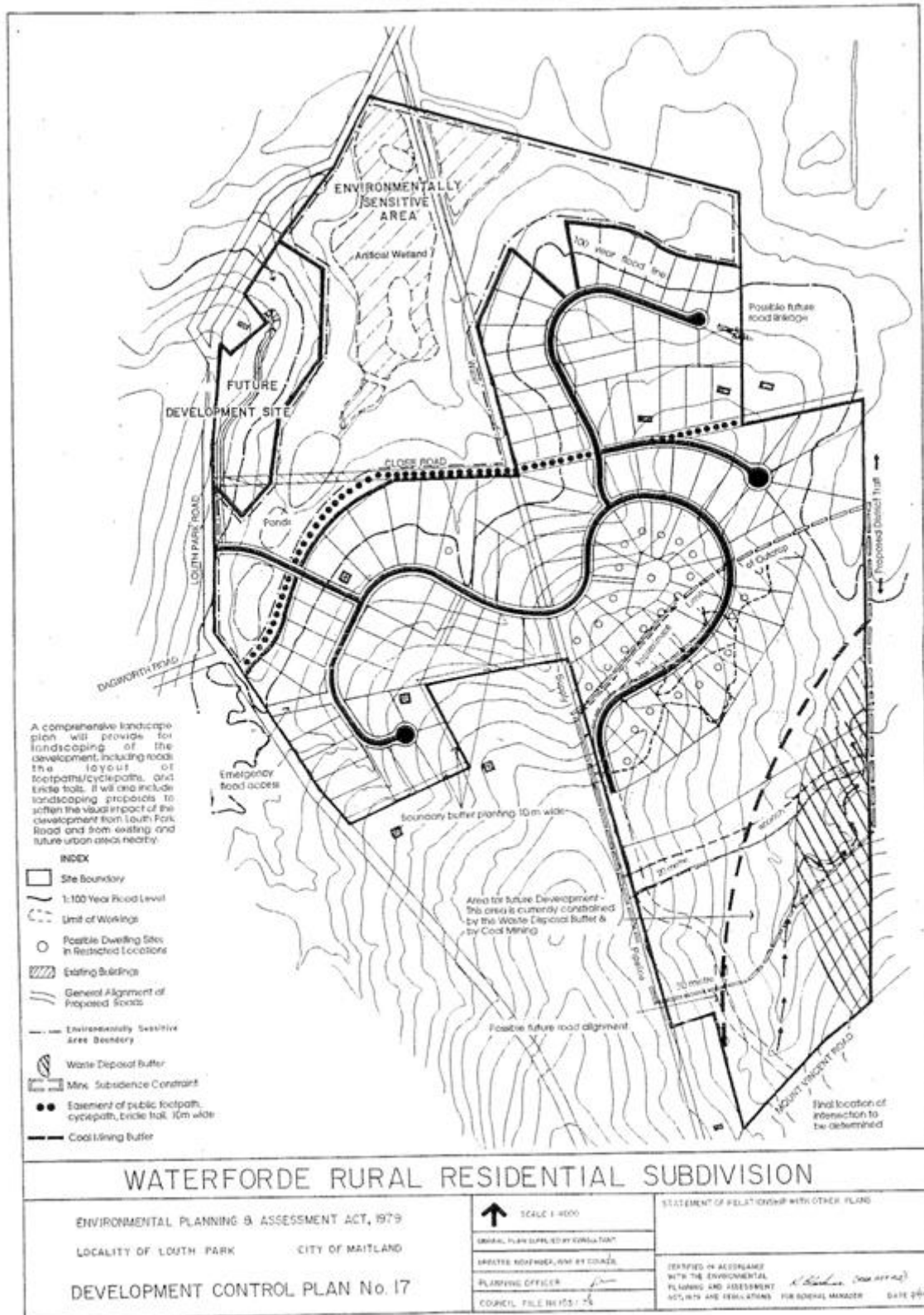
20. The road pattern shall be developed generally in accordance with the Locality Plan but the layout is indicative only and may be varied in the course of detailed subdivision planning.

#### Public Amenities and Services

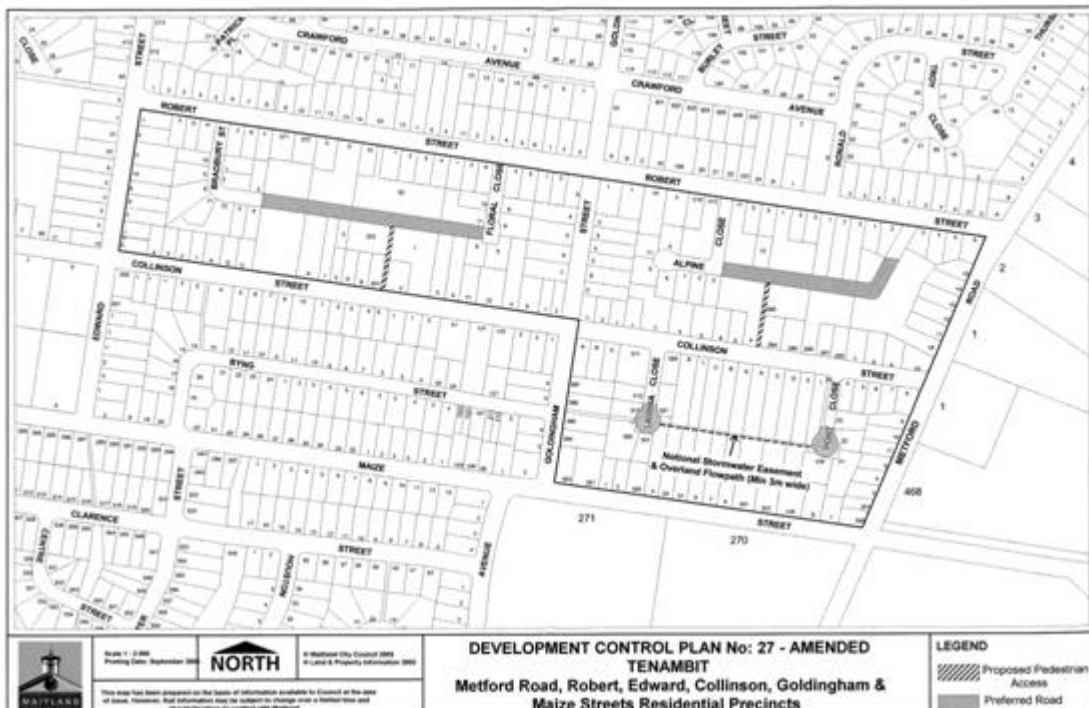
21. The Developer shall provide a pedestrian, bicycle and horseriding trail from the eastern boundary of the site to Louth Park Road generally as shown on the Locality Map and a right of way in favour of the public for that part of the trail which passes over private land.

#### Large Lot Residential Provisions

22. All structures erected on large lot residential zoned land shall be designed so as to be compatible with the rural character and landscape of the locality. In this regard, particular attention shall be given to the style, colour and materials of the external surfaces of the structure.
23. Conditions of Consent may also specify requirements for the provision of 88B Instruments or relevant alternative acceptable to Council to maintain the view from existing dwellings in the locality. Council may require the provision of building envelopes for the specific siting of new development.
24. Dwellings should be designed to maximise exposure to winter solar radiation and to locate living rooms to take advantage of winter solar radiation. Dwellings should be designed to minimise the extent that summer solar radiation enters windows on the northern and western facades of the building. Dwellings should be designed to permit cross ventilation to allow benefit from cool summer breezes.



## D.7 Tenambit



### 1. Locality Statement

This land is located within the established residential area of Tenambit. The locality will be developed as a conventional residential area with lot sizes generally being consistent with those around the perimeter of the site fronting Robert, Goldingham, Collinson, Maize and Edward Streets and Metford Road. Larger lots may be created for the purposes of dual occupancy or multi dwelling housing, taking into account the potential impacts from such development on adjoining properties.

The development of this locality will ultimately result in the through connection of Bradbury Street and Floral Close, Lavinia and Pont Closes and Alpine Close with a further exit onto the eastern end of Robert Street.

### 2. Design Principle

To facilitate urban consolidation of vacant land in a co-ordinated manner to ensure that no unreasonable financial burdens are placed on the developer or Council.



### 3. Design Requirements

1. The development of the site should incorporate the preferred access and approximate location of the road as indicated on the Locality Plan.

2. Suitable legal access is to be provided to all land shown on Locality Plan to the satisfaction of Council following the preferred access.
3. Where existing drainage pipelines are not covered by drainage easements then such easements shall be created when any single or collective development or subdivision occurs.
4. Where new drainage pipelines are necessary to service discharge from the site development and/or new road, the drainage works shall be constructed from a point of connection that discharges to a public road to the development site and be covered by an easement in favour of Council.
5. Drainage and stormwater will require new residential lot development to commence from Pont Close, in respect of the area bounded by Metford Road, Maize, Goldingham, and Collinson Streets, and from the eastern extremity of the preferred road access linking Alpine Close to Robert Street and Floral Close with Bradbury Street.





**LEGEND**  
 Proposed Pedestrian Access  
 Preferred Road

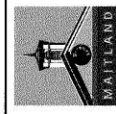
**DEVELOPMENT CONTROL PLAN No: 27 - AMENDED**  
**TENAMBIT**  
**Metford Road, Robert, Edward, Collinson, Goldingham & Maize Streets Residential Precincts**

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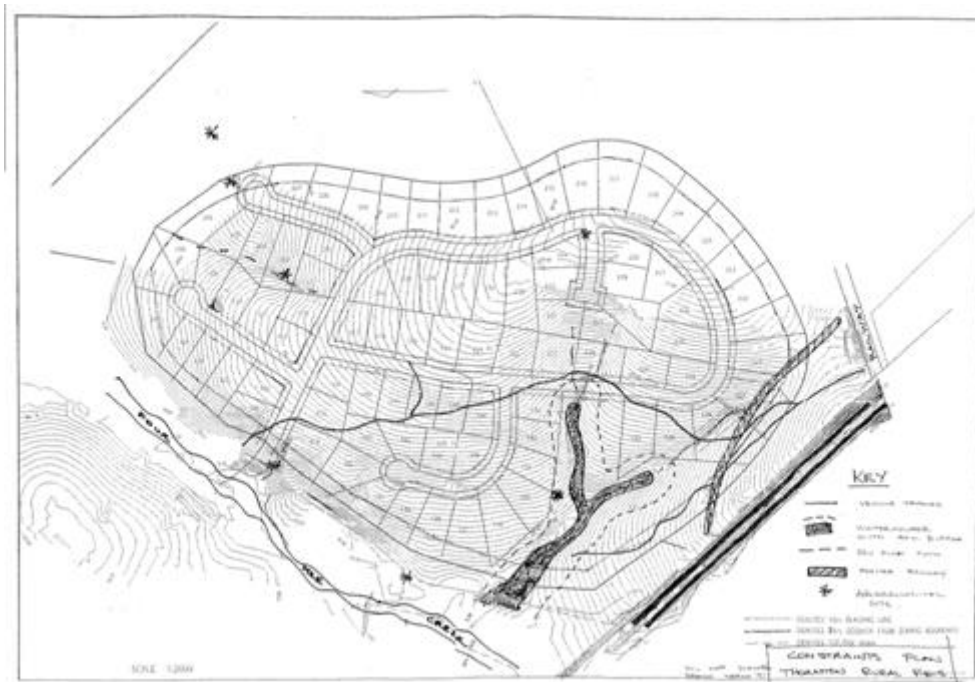
**NORTH**

Scale 1 : 3 000  
 Printing Date: September 2008

This map has been prepared on the basis of information available to Council at the date of issue. However, it is subject to change over a limited time and should therefore be verified with Maitland.



## D.8 Thornton (Woodlands Estate)



### 1. Locality Statement

The **Woodlands Estate Locality** lies between the established urban areas of Metford and Thornton, the New England Highway and the North Coast Railway. Constraints analysis undertaken in the preparation of the original Development Control Plan (DCP 28) informed the design of the subdivision and the preparation of design guidelines for residential development.

The constraints analysis identified that the native vegetation within the Locality provides habitat for several vulnerable species under the *Threatened Species Conservation Act 1995* as well as assisting with the stabilisation of soils, thereby reducing sediment runoff into the nearby Four Mile Creek. Accordingly, the retention of native vegetation is an integral design principle in the development of the overall Locality and is reflected in the use of the E4 Environmental Living zone for the development component in this Locality.

There is a potential for traffic movements on the New England Highway and for train movements along the Main Northern Railway to generate noise nuisance. The impacts of noise generally lessen with increased distances of separation. Minimum separation distances are incorporated into the design requirements for dwelling-houses.

The subdivision has been completed in this Locality. Accordingly, only the Design Requirements for development of individual lots are provided for in this Plan.

## 2. Design Principles

- P1 Development of the Locality shall ensure that the habitat values of the site are retained by maximising the retention of existing native vegetation, encouraging the rehabilitation of degraded areas and appropriate management of natural areas.
- P2 Development of the Locality shall maintain the visual integrity of views from the New England Highway, Raymond Terrace Road, the Main Northern Railway, Thornton Road and the urban areas of Metford and Thornton through the incorporation of buffer zones, the use of landscaping and by controlling the external appearance of buildings.
- P3 Development of the Locality shall retain the visual amenity of the site provided by the tree canopy and bushland through the retention of native vegetation and incorporation of appropriately selected landscaping.
- P4 The habitat values of land not subject to development shall be protected, through the maintenance and enhancement of existing vegetation, including the understorey.
- P5 Development of the Locality shall have regard to the constraints of the land as shown on the Locality Plan.

Natural constraints include:

- a) Native vegetation which is habitat for several Vulnerable Species under the *Threatened Species Conservation Act 1995*,
- b) Erosion potential of watercourses and soils,
- c) Flooding potential in Four Mile Creek,
- d) Natural drainage patterns; surface water from the site discharges into Four Mile Creek, moist gullies along the northern and southern boundaries of the site and Woodberry Swamp, all sensitive to increased levels of sediments, nutrients and salinity,
- e) Existing urban bushland provides an attractive visual amenity for adjoining areas and should be retained where possible. Degraded areas not set aside for development should be enhanced through landscaping with local native species,
- f) Potential bushfire hazard, and
- g) Potential acid sulfate soils along Four Mile Creek.

Man-made constraints include:

- h) Potential site contamination from previous uses,
- i) Potential subsidence and safety issues arising from old mining and mine exploration works,
- j) Noise levels emanating from the North Coast Railway Line and the New England Highway,
- k) The potential conflict of land uses e.g. proximity of industrial to residential, environmental protection and rural residential.

### 3. Design Requirements – Residential Development

#### Development Envelope

1. Landowners are required to submit a plan indicating the development envelope for their allotment at the time of lodging an application for the approval of a dwelling. Landowners should aim to retain high proportion of native vegetation, including understorey vegetation. The location of the development envelope will be guided by the constraints plan and vegetation management and landscaping plan approved as part of the subdivision application.

As a guide a Development Envelope will:

- a) Have an area of no more than 2000 m<sup>2</sup>;
- b) Be located a minimum of 40m from the centreline of watercourses;
- c) Not contain land zoned E3 Environmental Management or RE1 Public Recreation or be located closer than 30m to land in these zones;
- d) Not contain land identified as constrained in the subdivision application;
- e) Be in accordance with the vegetation management and landscaping plan;
- f) Be accessible to a public road without requiring significant modifications to a natural drainage line; and
- g) Be above the level of Councils currently adopted flood standard (1% AEP flood level).

A plan showing an indicative development layout is provided as Plan 3.

2. All buildings shall be located within the development envelope in a manner, which allows all necessary bushfire fuel reduction measures to also occur within the development envelope. Buildings shall have a minimum setback of 6 metres from side boundaries and 10m from the front boundary.
3. Applicants are encouraged to retain as much native vegetation within the development envelope as practical, while ensuring the safety of proposed structures and adequate bushfire fuel reduction.
4. Applicants seeking to clear land lying outside the development envelope or alter the configuration of the envelope are required to provide evidence that such work will not significantly impact upon the habitat of endangered or vulnerable flora/fauna and is consistent with the vegetation management and landscaping plan.

#### Building Design

5. All structures, i.e. dwelling-houses, garages, sheds, fencing, shall be designed having consideration to the bushland character of the area, the topography and landscape features of the site. Particular consideration will need to be given to building location, solar access, form, colour and construction



materials. Applicants will be required to demonstrate that these considerations have been taken into account.

6. Council encourages the construction of non-obtrusive structures to reduce their visibility from the New England Highway, the Main Northern Railway or Metford. Roofs are to be of low-reflective tile or pre-coloured metal sheeting.
7. Dwellings should be designed to accommodate the topography of the site and should not require cut or fill in excess of 1000mm in depth or height respectively.

#### Bushfire Protection

8. Measures indicated in the bushfire hazard assessment submitted with the subdivision application are to be incorporated in the design of buildings and treatment of their surrounds.

#### Noise

9. A minimum 50 metre setback is required between dwelling-houses and the boundary of the New England Highway or the Main Northern Railway. Certain building materials and designs offer better sound insulation qualities and should be investigated for use in new house designs.

#### Fencing

10. The use of solid panel fencing, except for the screening of areas around swimming pools and entertainment areas and acoustic fencing adjoining a dwelling, is not acceptable in a bushland environment. The use of open mesh or rural type (post & wire) fencing is acceptable.

#### Landscaping

11. Landscaping associated with new dwellings shall be in accordance with any matters specified in the Vegetation Management and Landscaping Plan.

#### Domestic Animals

12. Given the bushland setting of the site and the proximity of the land zoned E2 Environmental Protection, E3 Environmental Management and RE1 Public Recreation, the co-operation of residents is sought in relation to responsible pet ownership. Residents should refer to Council's *Guide to Responsible Pet Ownership* for more information, however, a responsible owner would ensure that their cat or dog is under effective control at all times to reduce harassment or attacks on other domestic pets, people or native wildlife.

## 4. Design Requirements – E3 Environmental Management Zone

### Landuse/Management

1. Where landuses requiring the consent of Council are proposed, a management plan for the land zoned E3 Environmental Management shall be prepared and submitted to Council for approval prior to the release of building plans. The management plan shall indicate details of access, fencing, bushfire hazard reduction measures, weed control, location of buildings, extent of vegetation removal and rehabilitation.

### Building works

2. Buildings and related works shall generally be located in areas which contain poor habitat for native fauna due to vegetation removal undertaken in the past. The design of these works is to reflect the environmental sensitivity of the site.

### Flora and Fauna Habitat Preservation

3. In order to assist in the retention of a high proportion of existing habitat, the removal of native trees and understorey will be discouraged outside those areas not forming part of the Development Envelope, with the exception of works associated with bushfire hazard reduction undertaken by authorised persons.
4. Unless a *critical habitat tree* is considered by Council to be a danger to human life or is no longer considered to be of high habitat value, request for removal will be denied.
5. The Threatened Species Conservation Act 1995 requires a 7-part test to be undertaken to determine the impact significance of development upon threatened species, populations and ecological communities. Such a test of significance will be required to be submitted with development (including subdivision) and TPO applications. If this test indicates that a significant impact will occur then a Species Impact Statement (SIS) and the concurrence of the National Parks and Wildlife Service is required.

### Site Contamination

6. Prior to development of land identified as being contaminated (as shown on Plan 1), remediation plans are to be prepared in accordance with the requirements of SEPP 55 – Remediation of Land and associated guidelines. *(Note: Potential contamination includes areas used for previous tip operations, the brickworks tailing dam, overflow drains, coal storage areas and the brickworks, sawmill and demolition and junk yard building sites. The actual extent of contamination is to be determined by detailed geotechnical survey).*

7. The site has been the subject of coal mining and exploration in the past. As a result hidden mining shafts and tunnels may be present on the site. Detailed investigations are to be undertaken to determine the presence or level of any related hazard, with the results to be submitted with any subdivision application. The result will indicate the actions necessary to rehabilitate the site to minimise damage to future buildings and works or minimise risk of injury to people. Information may be available from the Department of Mineral Resource's Library/Archives.

#### Access/Linkages

8. Vehicle and pedestrian access to the E3 Environmental Management land shall be restricted to those designated access points as shown on Plan 2.
9. In order to assist in ecological management and improve biodiversity of the land, access is to be managed. The landowner has no obligation to provide access for adjoining landowners or members of the general community who may wish to traverse the land for the purposes of recreation or private study.

#### Fencing

10. The benefits and impacts of erecting of feral and manproof fencing (including electric fencing) will be considered with any development proposals for the site. The erection and maintenance of such fencing would be the responsibility of the landowner.

#### Bushfire

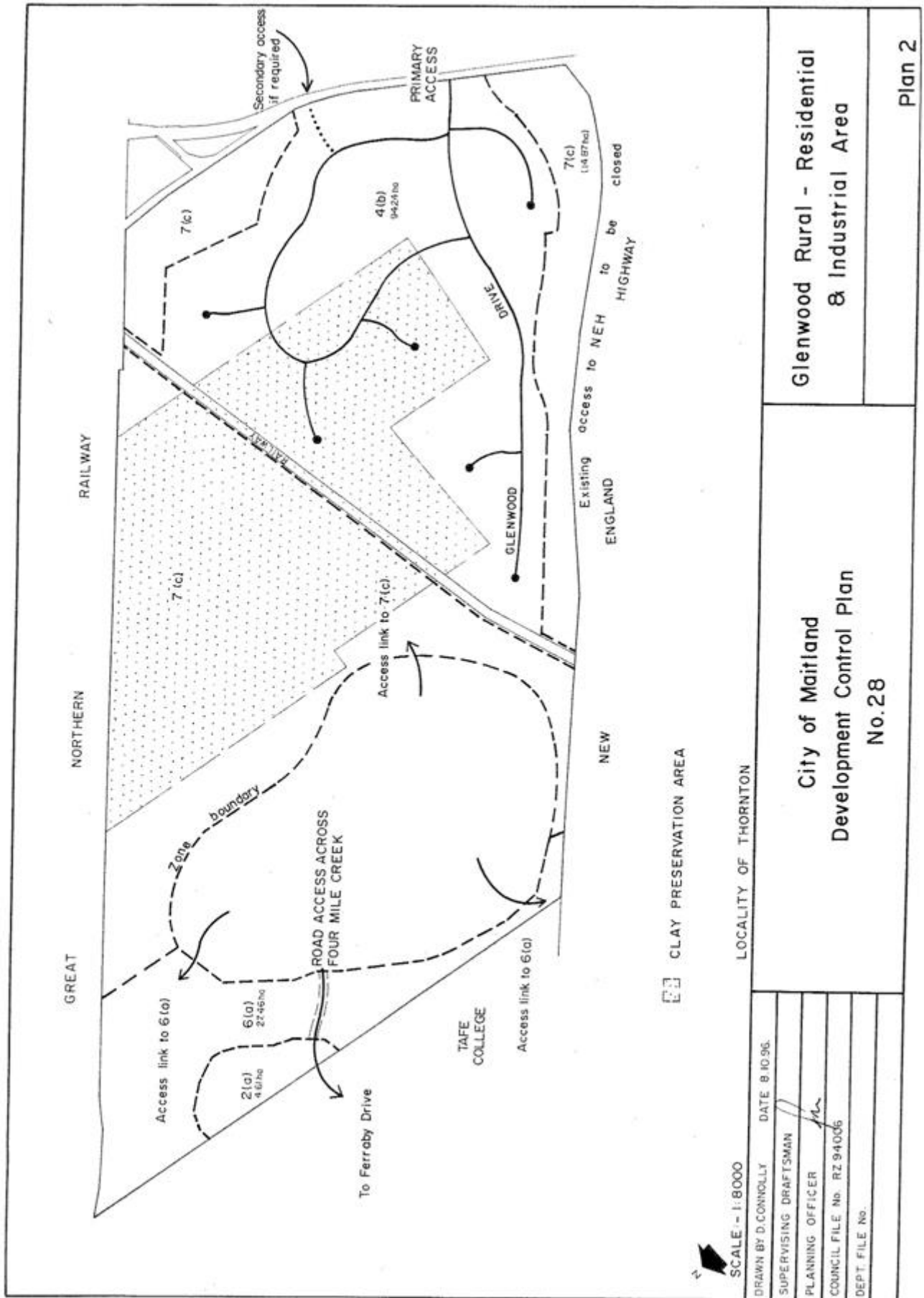
11. Controlled burning of the land may be required from time to time in order to reduce the build-up of fuel. Such burning is to be undertaken with the assistance of the local bushfire brigade in accordance with an approved fire management plan.

#### Archaeology

12. Development proposals should be designed so that Aboriginal and non-Aboriginal heritage items and archaeological sites are not disturbed (see Locality Plan) unless an archaeological survey has been completed and the survey indicates that the items are of minor significance.







SCALE - 1:8000

DRAWN BY D.CONNOLLY DATE 8.10.96.

SUPERVISING DRAFTSMAN

PLANNING OFFICER

COUNCIL FILE No. RZ 940036

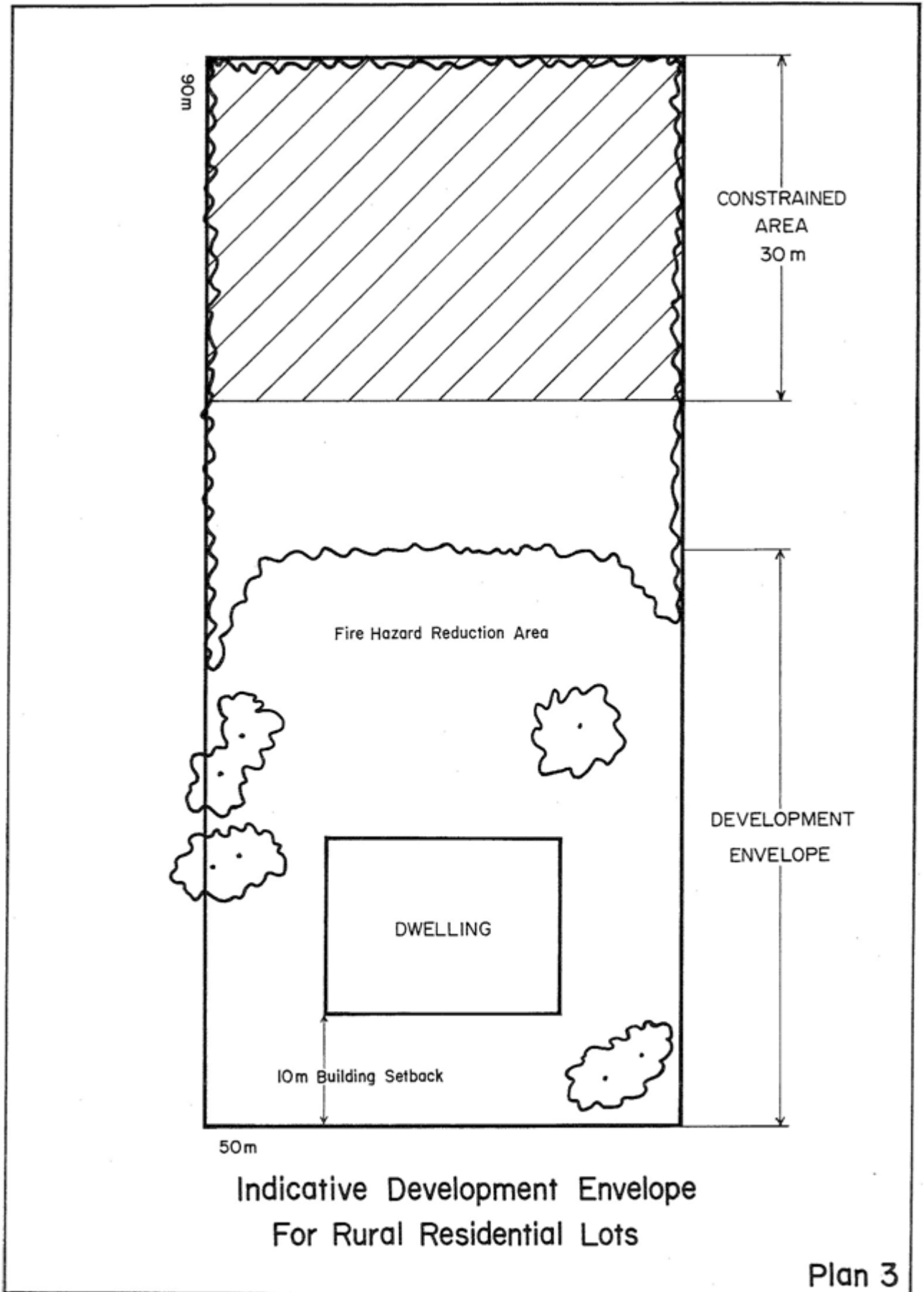
DEPT. FILE No.

LOCALITY OF THORNTON

City of Maitland  
Development Control Plan  
No.28

Glenwood Rural - Residential  
& Industrial Area

Plan 2





## 2. Design Principles

- P1 Development of the area must take into account existing constraints of the site. These constraints are shown on the Constraints Map.

*The natural constraints include:*

- a) potential flooding of the site;
- b) proximity to and natural drainage into wetlands and the Hunter River;
- c) remnant vegetation. The native vegetation in the riparian zone adjacent to the Hunter River in particular should be protected and vegetation elsewhere on-site should be retained where possible;
- d) Salinity. The drainage lines on the site exhibit saline characteristics which will influence the development and management of these drainage lines;
- e) the moderate to steep undulations of the site combined with soil types provides for potential erosion and sedimentation problems and requires deliberate storm water management; and
- f) Prominent ridgelines and knolls which form part of the existing skyline.

*The man-made constraints include:*

- a) land ownership patterns on the site and for land adjoining the site;
- b) the amenity and character of the Bolwarra Heights area based on present development patterns;
- c) road access from the existing local road network;
- d) the sewage treatment plant to the south of the site; and
- e) Aboriginal artefacts, such as the 'scarred tree' identified in the archaeological study undertaken in 1984, require protection and should be accommodated within public community land;

## 3. Design Requirements - Subdivision

### Lot Layout

1. Lots should be designed to be capable of containing a building envelope measuring a minimum of 10m by 15m. Building envelopes are to be located a minimum of 10m from the edge of any environmental protection/plant regeneration areas identified on the Locality Plan.
2. Lot boundaries shall not dissect the riparian vegetation zone.
3. Lot boundaries generally should not cross the main ridgeline or watercourses.
4. Lots which include part of an environmental protection/plant regeneration area identified on the Locality Plan, shall generally be larger to enable the planting and/or retention of larger trees.



### Access and Transport

5. A Traffic Impact Study is required to be submitted identifying the impact of the development on the existing road network and the appropriate road standards for complete and partial development of the site.
6. Although the road layout indicated on the Locality Plan is indicative, the primary road layout should generally be in accordance with the layout shown.
7. The main access to the site, from the first stage of development, is to be provided via a new intersection with Paterson Road, generally as shown on the Locality Plan. Upgrading of the intersection may be staged to correspond with the level of development proposed, traffic levels in Paterson road and the results of the Traffic Impact Study.
8. Generally lots and roads are designed to allow 90% of dwellings to be located within 400m straight line distance of an existing or potential bus route and 500m of an existing or potential bus stop.
9. The road network shall be designed to ensure that the bus routes efficiently connect with existing or likely future bus routes, provide for ease of movement of buses between developments, and link major activity centres within and external to the development. Buses should be able to safely gain access to the development and cross arterial roads when travelling between developments without complicated turning manoeuvres.
10. The road network shall be designed so that bus routes are as direct as possible. The alignment and geometry of the streets that form the bus route should allow for the efficient and unimpeded movement of buses without facilitating high traffic speeds.
11. Where access streets or places form part of a pedestrian or cycle network, access links should generally provide suitable connections to adjoining access streets or open space systems so that the pedestrian and cycle networks are functional, cost-effective and have visual supervision.
12. The subdivision design for Lot 1 DP 583650 shall incorporate land contained in the two triangular parcels to the east and should provide direct road frontage to at least one point along the boundary of the north-eastern most parcel.
13. Subdivision designs shall take the existing access lane off Hunter Road into consideration and should, where possible, link this lane to the new internal road network to allow the closure of the Hunter Road/Paterson Road intersection.

### Landscaping, Street Tree Planting and Site Revegetation

14. A Species Impact Statement is required to be submitted, where vegetation is proposed to be removed. This report should include an assessment under SEPP44 – Koala Habitat Protection.
15. Landscaping plans should generally include the planting of indigenous trees and shrubs in the environmental protection/plant regeneration areas indicated on the Locality Plan.

16. Tree planting recommended in the landscaping plans, or required as a condition of approval, shall be provided prior to Council's release of the final plan of subdivision.
17. Conditions of consent may specify requirements for the provision of Section 88B instruments to ensure the preservation of vegetation and to restrict the erection of structures within environmental protection/plant regeneration areas.
- 18 Existing vegetation on the site shall be retained as far as possible.

#### Aboriginal Archaeology

19. An archaeological survey conducted by a qualified archaeologist in consultation with the Mindaribba Local Aboriginal Land Council and the National Parks and Wildlife Service is required to be submitted. The results of the survey are to be detailed in a report noting the location and nature of artefacts or sites and proposed actions to be taken in relation to artefacts and sites;

#### Community Facilities

20. Any required site for community facilities shall be located in a position accessible from Bolwarra Heights and Largs, without resulting in unsatisfactory traffic movements along residential streets.
21. Any required site for community facilities should be linked by pedestrian and cycle paths to the Bolwarra Sports Oval.

#### Drainage Network

22. A water management plan for the sub-catchment involved is to be submitted with any subdivision application. The report should address the collection, storage and discharge of urban stormwater runoff from the site; the location of detention structures, and timing of detention and discharge rates having regard to adjoining residential developments and downstream activities; the 1% AEP storm event and the local 1 in 100 year flood level.

#### Minor Stormwater Flows

23. The minor drainage system shall have the capacity to control stormwater flows under normal operating conditions, from a storm with an annual exceedance probability (AEP) of 50%. In this case control means the management of flows to ensure the system's performance, under a specific rainfall event, will act in a pre-determined manner.
24. The minor drainage system shall prevent ponding, occurring from flows associated with a storm with an AEP of 50%, for a prolonged period (i.e., greater than one hour after cessation of rainfall, unless otherwise specified).

25. The minor drainage system shall be designed to provide fail safe mechanisms to ensure that blockages or failure of the system will not cause damage to property nor affect the safety of people.
26. The minor drainage system shall be designed to ensure that existing downstream drainage and ecological systems are not adversely affected.
27. The minor drainage system shall enable the safe passage of vehicles at reduced operating speeds on streets which have been affected by runoff from storms with an AEP of 50%.
28. The drainage network shall be accessible and readily maintainable.
29. The drainage networks shall be designed to prevent accumulation of silts and blockages by debris.
30. The drainage networks are to be well defined to ensure there are no hidden flow paths.
31. The materials used in drainage networks are to be durable, maintainable and cost-effective.
32. The design of drainage systems shall be undertaken by properly qualified personnel, using recognised hydrologic, hydraulic and residential parameters and design methodology.
33. Where a portion of the drainage system lies within an allotment, access shall be made available for maintenance.

#### Major Stormwater Flows

34. Where trunk drainage systems utilise existing drainage lines, the existing drainage lines are maintained as closely as possible to their natural state or in accordance with the landscaping planned prepared for the proposal.
35. The drainage reserves are to be of sufficient width to wholly contain flows from a storm with a 1% AEP.
36. The major drainage network is to be designed to have the capacity to control stormwater flows under normal and minor system blockage conditions for flows from a storm with a 1% AEP.
37. The drainage system shall be designed so that no dwelling is inundated during a flood with a 1% AEP.
38. Gross pollutant traps and first flush systems shall be provided to protect downstream wetlands, waterbodies and waterways.
39. Floodways should generally be restricted to areas where there is no damage to property, and discharge all gap flows.

## 4. Design Requirements – Development

### Building Siting and Design

40. Dwellings should generally not be located along the main ridgeline and knolls in the north western section of the site (see constraints map).
41. Dwellings located in close proximity to the main ridgeline and knolls shall be single storey in scale.
42. Dwellings should generally be designed to accommodate the topography of the site and should do not require cut or fill in excess of 1000mm in depth or height respectively.

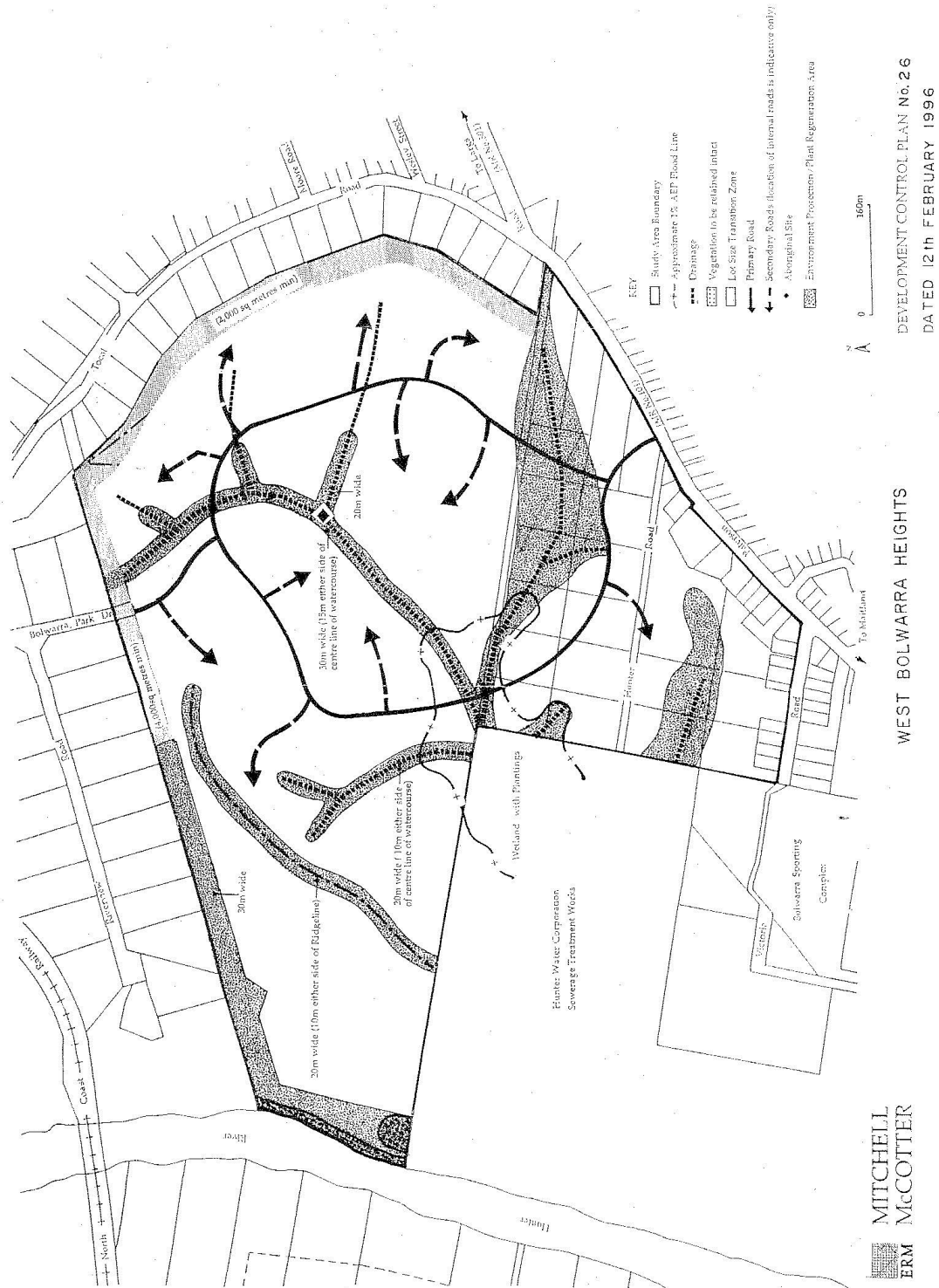
### Streetscape

43. A streetscape plan shall be submitted where an integrated housing development or allotments with areas less than 450sqm are intended to be created.

### External Building Materials

44. Buildings should be designed so that, through the selection of building materials and landscaping, the total development will be sympathetic with surrounding development and natural features of the site.





WEST BOLWARRA HEIGHTS

ERM  
MITCHELL  
McCOTTER



## D.10 West Rutherford



### 1. Locality statement

The West Rutherford Locality is a natural extension of the existing Rutherford residential area, conveniently located near the New England Highway, public transport, Rutherford shopping centre, schools and open space. The land also adjoins the former Anambah waste facility, which is proposed to be rehabilitated and used for open space purposes in the future.

The western boundary of the area is defined by Anambah Road. No new lots or dwellings shall have direct vehicular access to Anambah Road, with all traffic confined to new intersections. In order to present an attractive streetscape appearance, an internal subdivision street shall run adjacent to Anambah Road, with opportunities for landscaping and a shared footpath/cyclepath leading towards the future open space and Highway. The northern extent of the area is defined by the 100 year flood contour, with all development to be confined to flood free land.

The land adjacent to the New England Highway contains an existing 30 metre drainage easement. It is proposed that the land affected by the easement will be enhanced for

the additional purpose of containing landscaping to provide a buffer to traffic noise. This easement area shall also incorporate a shared footpath/cyclepath that will link the new residential area to the existing footpath and cycleway networks.

An internal subdivision street will also be required adjacent to the Highway frontage, providing separation to traffic noise, and an attractive streetscape of new housing and landscaped front yards. No direct vehicular access is permitted to/from the Highway.

The new residential area shall connect internally from Anambah Road to Denton Park Drive via Daniel Avenue, with Darby Lane and Turin Terrace able to be extended to link southwards.

A local park is required within the area which, in conjunction with the proposed open space on the former waste facility site, provides ample open space to satisfy the needs of the community.

Development in the area will comprise a range of housing forms including single dwellings on individual lots, small lot housing and medium density housing to meet the needs of all sectors of the community. Medium density housing should be focused in areas of flat topography, with good solar orientation, in close proximity to the areas of high amenity such as adjacent to parks and bus routes.

## 2. Precinct Plan

The Precinct Plan (see Figure 1) illustrates how development outcomes can be achieved. This Plan provides for:

- a) a transport movement hierarchy showing the major circulation routes and connections to achieve a simple and logical movement system for vehicles, public transport, pedestrians and cyclists, including an off-road shared footpath/cyclepath along the Anambah Road and New England Highway frontages, plus any internal paths;
- b) the general location of potential parks, stormwater and water quality and quantity management controls and devices;
- c) amelioration of any natural and environmental hazards, including bushfire, flooding and any archaeological or site contamination constraints;
- d) amelioration measures to protect future residential development from fumes, vibration and noise generated by traffic in accordance with the relevant criteria and standards of the RTA and NSW Environment Protection Authority;
- e) the establishment of a landscaped buffer area adjacent to the New England Highway and Anambah Road, with no direct vehicular access to the land;
- f) a mixture of residential development that reflects the capabilities and constraints of the site including slope, drainage, noise and vibration, as well as bushfire risk.



Figure 1 – West Rutherford Precinct Plan



### 3. Design Requirements

#### Traffic, Road Design, Pedestrian/Cycleway Networks

1. No new future lot shall have direct vehicular access to Anambah Road or the New England Highway.
2. A shared off-road path shall be located adjacent to Anambah Road and the New England Highway.

#### Subdivision Design

3. Subdivision design and lot layout must ensure that any future residential housing will not be adversely affected by noise or vibration from traffic along the New England Highway and Anambah Road, nor any other adjoining land uses. Acoustic reports must be submitted to Council for approval with Development Applications.
4. Details of any proposed fencing adjacent to Anambah Road and the New England Highway shall be submitted to Council for approval with Development Applications. Such fencing must be installed at the subdivision development stage to the satisfaction of Council.

#### Building Form

5. Housing which is adjacent to the New England Highway and Anambah Road should be appropriately designed so as to provide a high quality architectural appearance with visual interest, particularly by discouraging bulky buildings and blank walls.
6. Fencing is to make a positive contribution to the visual appearance of development, and will be consistent with the objectives of this Area Plan. Fencing adjacent to the boundaries of the surrounding rural lands, the New England Highway and Anambah Road shall be unobtrusive. Details of fencing is required to be submitted to Council with Development Applications.

#### Visual and Scenic Amenity

7. New landscaping shall be provided in visually prominent locations throughout subdivisions, particularly adjacent to the New England Highway and Anambah Road, including road reserves where practicable, to provide visual relief to the built elements and to soften any impacts in relation to the adjoining rural landscape.

#### Landscaping, Streetscape and Open Space Areas

8. Landscaping will be required on land adjacent to Anambah Road and the New England Highway, so as to soften the visual impact of all built elements, creating attractive streetscapes when viewed by passing traffic and pedestrians.

# D.11 Glebe Paddock

## LOCALITY DESCRIPTION

The Glebe Paddock refers to the land at Wallis Street, East Maitland. It is bounded by Wallis Street to the north-east, the unformed extension of George Street to the south-east and Wallis Creek to the west.

The site is 16.76Ha in area. 4.35ha has been rezoned for general residential purposes. The residual area is zoned environmental conservation. It contains sites of Aboriginal cultural heritage, an endangered ecological community and hollow-bearing trees. The proposed curtilage to the State listed Glebe Cemetery is mostly contained within the environmental land. The area is also partially affected by flooding.

### References

These following development controls were informed by several key investigations. These should be consulted when assessing a development application for the site.

1. "Glebe Gully Burial Ground, East Maitland" prepared by Richard Lamb and Associates dated November 2012.
2. "Aboriginal Cultural Heritage Assessment" prepared by Archaeological Risk Assessment Services dated December 2010.
3. "Flora, Fauna and Threatened Species Assessment" prepared by Ecobiological (undated).

## DEVELOPMENT CONTROLS

### Staging

Performance criteria	Acceptable solutions
The timely and efficient release of urban land, making provision for necessary infrastructure and sequencing is encouraged.	Staging of development shall generally occur in accordance with Figure 2.

### Residential/environmental lands interface

Performance criteria	Acceptable solutions
The interface between the residential area and the environmental area is sympathetic to the State heritage item.  Fencing is low-impact, rural-type fencing.	For properties immediately adjoining the environmental zoned area, rear fences and side fences up to the rear building line of the main dwelling are to be constructed of post and wire or post and rail, transparent, "rural type" fencing.

<p>Unauthorised access to the environmental area is discouraged.</p>	<p>Fencing must be provided along the interface between the environmental zoned area and the residential area.</p>
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**Curtilage to Glebe Cemetery**

Performance criteria	Acceptable solutions
<p>The subdivision design maintains the open nature of the curtilage of the Glebe Cemetery.</p>	<p>Development must be in accordance with the Glebe Historic Cemetery Conservation Management Plan.</p> <p>A 'restriction as to user' under Section 88B of the Conveyancing Act shall be created over lots within the curtilage of the Glebe Cemetery requiring that no dwelling be constructed within 15m of the rear boundary.</p>

**Ecological endangered community and hollow-bearing trees**

Performance criteria	Acceptable solutions
<p>Impacts of any action affecting threatened species, populations and ecologically endangered communities (EEC) is properly assessed and compensated.</p>	<p>A revised flora and fauna assessment and vegetation management plan (VMP) must be prepared with any application to subdivide the site.</p> <p>The assessment and VMP is to be prepared by an appropriately qualified person.</p> <p>The VMP retains the area of prominent vegetation.</p> <p>Any loss of endangered ecological community (EEC) must be offset in accordance with the Office of Environment and Heritage EEC offset requirements and provided within the environmental land.</p>



Performance criteria	Acceptable solutions
<p>The habitat of those threatened species and populations that are dependent on hollow-bearing trees for their lifecycle is protected.</p> <p>The risk to people and property from hollow-bearing trees is minimised.</p>	<p>A hollow bearing trees (HBT) protocol must accompany any application to subdivide the site. The protocol must be informed by a comprehensive assessment prepared by a qualified ecologist and include;</p> <ul style="list-style-type: none"> <li>• A survey of all HBTs on the site;</li> <li>• Retention of HBTs where possible;</li> <li>• An assessment of the value of any HBT proposed to be removed based on;                             <ul style="list-style-type: none"> <li>a. Status of the tree (i.e. living or dead)</li> <li>b. Diameter Bole Height (living trees only)</li> <li>c. Number of visible hollows</li> <li>d. Location of HBT in the landscape</li> <li>e. Expected longevity of the hollow</li> </ul> </li> <li>• A strategy for tree removal (timing and methodology) that minimises impacts on native wildlife.</li> <li>• A strategy to compensate for the loss of HBTs by;                             <ul style="list-style-type: none"> <li>a. identifying compensatory recruitment trees<sup>1</sup> within the site</li> <li>b. installing nesting boxes of similar number and size as those hollows to be removed</li> <li>c. replacing any trees lost on the site.</li> </ul> </li> </ul>

<sup>1</sup> A tree can be considered to be a compensatory recruitment tree under the following criteria;

- Does not have any major structural defects or is suffering from disease that would lead to premature death and;
- Is from the same vegetation community and same genus and;
- Are located within environmental lands and managed in accordance with a vegetation management plan (VMP) and;
- Have a diameter bole height (DBH) of 50cm or greater and do not possess hollows or 100cm for Blackbutt - *Eucalyptus pilularis*.

Performance criteria	Acceptable solutions
	<p>Nesting boxes are;</p> <ul style="list-style-type: none"> <li>• to be installed like for like (both type and number, and host tree to genus level) and must be located within the environmental lands</li> <li>• to be installed and maintained within environmental lands in accordance with the VMP for period until recruitment trees are established</li> <li>• to be inspected and maintained by a qualified ecologist</li> </ul> <p>All felled trees must be relocated to the environmental land to supplement existing terrestrial fauna habitat.</p>

**Aboriginal Cultural Heritage Impact Assessment**

Performance criteria	Acceptable solutions
<p>The Aboriginal cultural heritage of the site is protected and maintained.</p> <p>The Local Aboriginal Land Council is involved the future management of the Aboriginal cultural heritage on the site.</p>	<p>An updated Aboriginal cultural heritage impact assessment (ACHIA) must be undertaken before consent is given to the subdivision.</p>
	<p>Subdivision design must respond to the outcomes of ACHIA.</p>
	<p>An Aboriginal cultural heritage management plan must be prepared for the environmental area.</p>
	<p>The Aboriginal cultural heritage impact assessment must be undertaken in consultation with the Mindaribba Local Aboriginal Land Council and Traditional Owners.</p>
	<p>The Aboriginal cultural heritage management plan must be prepared in consultation with the Mindaribba Local Aboriginal Land Council and Traditional Owners.</p>

**Geotechnical**

Performance criteria	Acceptable solutions
<p>The development responds to the geotechnical characteristics of the site.</p>	<p>Any development application for subdivision must include a geotechnical assessment undertaken by a qualified geotechnical engineer that assesses the conditions of the site for building.</p>
	<p>Where applicable, the geotechnical assessment must include building specifications to ensure residential development adequately responds to geotechnical conditions.</p>

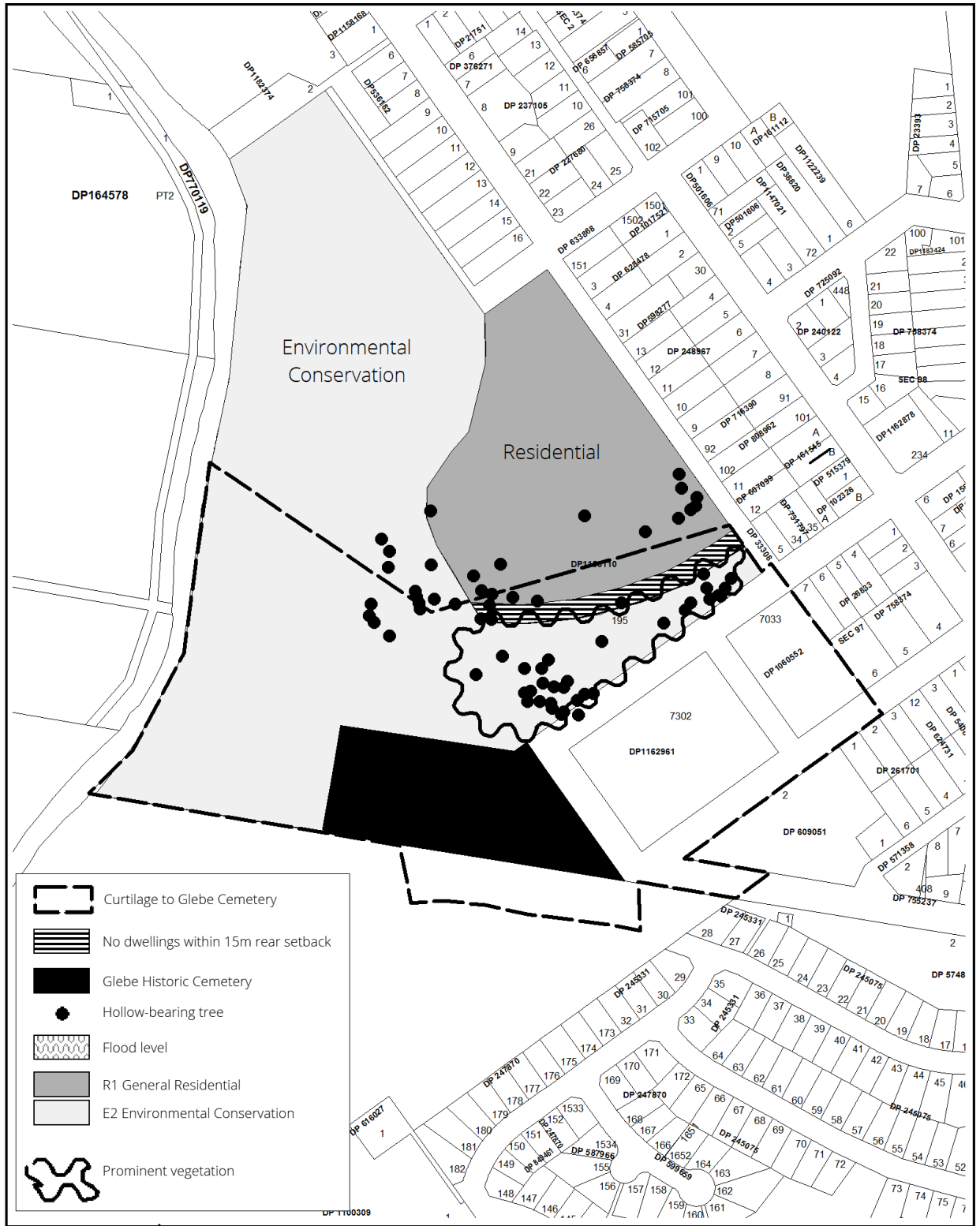


Figure 1: Glebe Paddock key constraints and development controls.



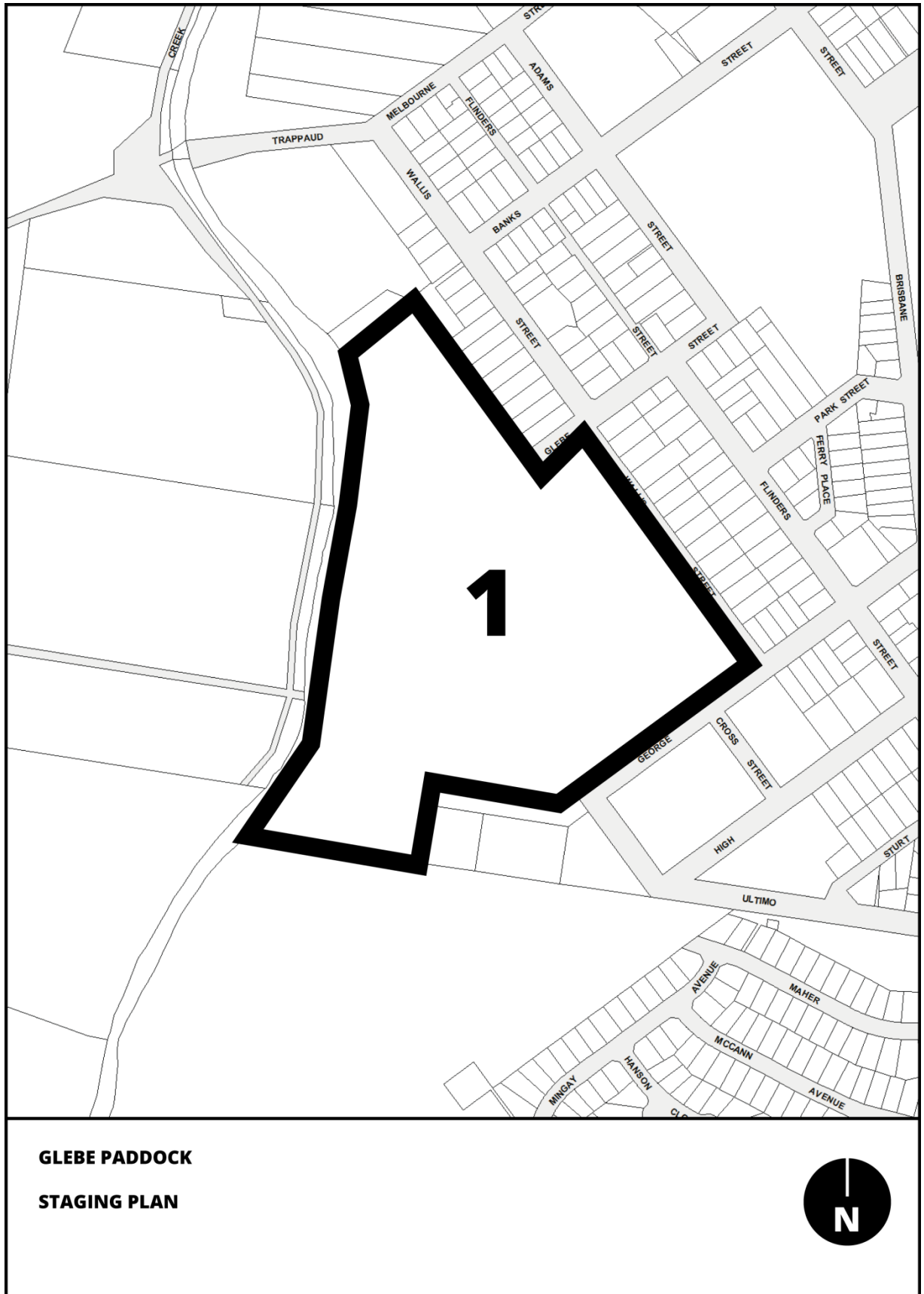


Figure 2: Glebe Paddock Staging Plan.

2011

Maitland City Wide  
Development Control Plan



Part E –  
Special Precincts

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# Part E – Special Precincts

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## E.1 Centres

### 1. Preamble

This part of the Development Control Plan (DCP) sets out Council's requirements for centres. It contains general requirements for development in centres, additional design considerations for new centres and specific design requirements for particular locations.

Centres are generally zoned for business or commercial purposes and denoted by the 'Bx' in the Maitland Local Environmental Plan; for example; B1 Neighbourhood Centre, B2 Local Centre and B3 Commercial Core. These centres exist as a hierarchy that is determined by the centre's function and the catchment it is intended to serve. For example; a neighbourhood centre provides "a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood." The hierarchy was established by the [Activity Centres and Employment Clusters Strategy 2010](#) (ACECS 2010).

In addition to these hierarchical centres, there are three other business zones that are used in Maitland. The B4 Mixed Use zone provides a mixture of compatible land uses including residential. The remaining zones, B5 Business Development and B6 Enterprise Corridor are used to accommodate other business, commercial and industrial activities.

The hierarchy of centres (as per the ACECS 2010) is set out below:

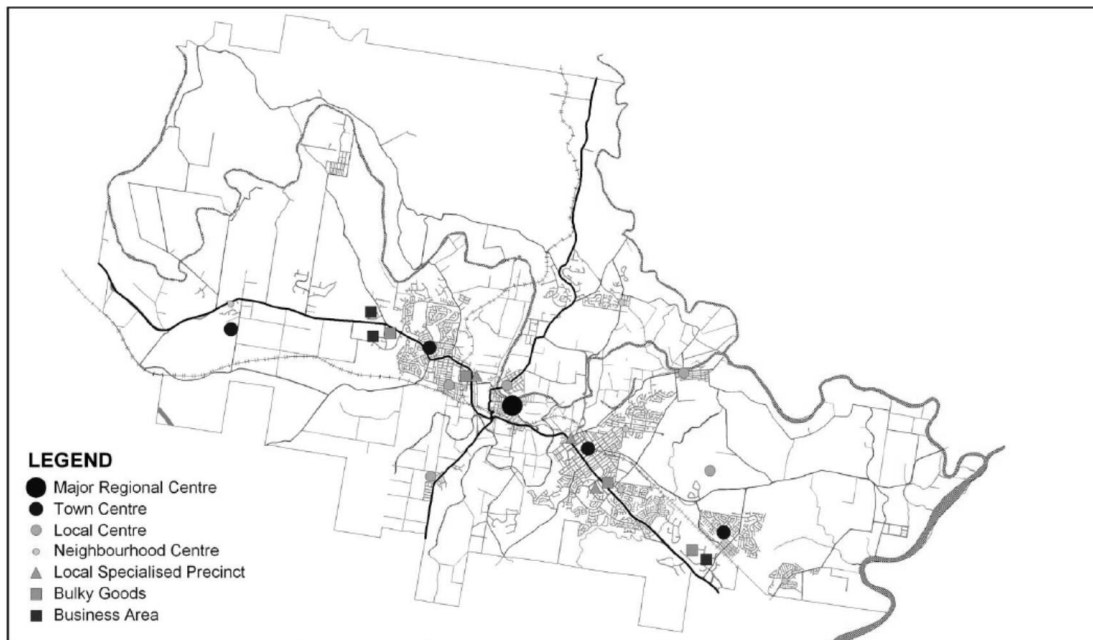


Figure 1: Network of centres and employment clusters. Source: [Activity Centres and Employment Clusters Strategy 2010](#).

Most of Maitland's Centres are established and many of these have significant heritage



streetscapes or elements. New development in existing centres shall respect the built form of the existing centre and the elements that make the centre unique.

New centres have different challenges. New centres are typically designed and owned by a single entity which affects the diversity of the built form and the type of uses offered. New centres often lack a strong street address as they are preferentially recessed behind car parking.

Centres in urban release areas shall become a key focal point for the community and be uniquely identifiable. Centres need to incorporate a variety of uses including community, retail and a range of services that meet the needs of the surrounding residents.

## **2. New centres**

### **2.1 Development requirements**

These provisions only apply to new centres. New centres must also address: General Provisions, Development adjoining sensitive land uses and mixed use developments and Precinct Requirements, where applicable.

#### Objectives

1. New centres are designed and planned to provide an attractive and accessible public space.
2. New centres provide a focal point for the community, with a unique and identifiable built form.
3. Centres provide space for public events and celebrations.
4. Bulky and unattractive buildings are avoided.
5. Overbearing or monotonous building design is avoided where viewed from any public place.

#### Development controls

1. Development of a new centre must be accompanied by a design masterplan that demonstrates how the centre will achieve superior design quality.
2. A new centre shall:
3. Create an active street along the primary road frontage
4. Reinforce prominent corners with the design of the building
5. Be designed to incorporate a range of materials and building elements that create visual interest.
6. New centres must nominate an area/or areas within the site for public events.
7. The public space must be accessible at all times and serviced with infrastructure to support the events such as electricity and lighting.
8. Individual shop fronts shall be defined by changes to materials or design elements.
9. The maximum length of any similar facade treatment is 20m.
10. Side and rear facades are to be treated with equivalent materials and finishes to the front facade.

11. Building facades shall be designed to reflect the orientation of the site incorporating environmental control devices, e.g. sun shades, ventilation vents, overhangs, building recesses, eaves, as an integrated design feature of the building.
12. Where tilt-up treatments are proposed with a wall length greater than 20m, the panels include features that articulate or break-up the design such as:
  - Grills;
  - Inserts;
  - Windows;
  - Cladding; or
  - Pop-outs.
13. Landscaping may be used in conjunction with the above treatments but shall not be used as the sole means to treat tilt-up walls.
14. Where tilt-up walls higher than a single storey are proposed, horizontal treatments such as:
  - Different materials;
  - Colours; or
  - Other elements are incorporated into the building design.

### **3. All centres**

#### **3.1 Active Frontages**

These provisions apply to all active street frontages identified in Figures 4 to 11.

##### Objectives

1. Active uses are provided along identified frontages.
2. Uses that attract pedestrian traffic along certain ground floor street frontages are promoted.
3. A vibrant and safe public domain is provided.
4. Direct contact (visual and physical) between the street and the interior of a building is achieved.

##### Development controls

1. Ground floor levels shall not be used for residential purposes in zones B1 Neighbourhood Centre or B2 Local Centre.
2. Active frontages shall consist of one or more of the following:
  - A shop front.
  - Commercial and residential lobbies.
  - Café or restaurant.
  - Public building if accompanied by an entry from the street.
3. A minimum of 80% of the ground floor level front facade shall be clear glazed.
4. The reflexivity index for glass shall not exceed 20%.
5. Restaurants and cafés shall provide openable shop fronts (for e.g. bi-fold doors) where practical to the public domain.

6. Colonnade structures (refer Figure 3) shall not be used unless it is demonstrated that the design:
  - would not restrict visibility into the shop or commercial premises; and
  - not limit natural daylight along footpaths; and
  - does not create opportunities for concealment.

### 3.2 Arcades

#### Objectives

1. Connections to enhance the pedestrian network and to link between shopping areas, public spaces and car parking are provided.
2. Parking at the rear of the development is encouraged by providing good permeability to the front of the site.
3. Activity within arcades is encouraged.

#### Development controls

1. Arcades are to:
  - Be obvious and direct through-ways for pedestrians.
  - Have a minimum width of 3m clear of all obstructions unless it includes arcade dining where a minimum footway clearance width of 1.8m for high volume pedestrian areas or 1.5m in all other circumstances; is maintained.
  - Be accessible to the public for the duration of activity in the centre.
  - Where practical, have access to natural light for part of their length and at openings at each end.
  - Have clear glazed entry doors at least 50% of the entrance, where the arcade is air-conditioned.
  - Have signage at the entry indicating public accessibility and to where the arcade leads.
  - Have clear sight lines and no opportunities for concealment.
  - Where arcades or internalised shopping malls are proposed, those shops at the entrance shall have direct pedestrian access to the street.

### 3.3 Awnings

Awnings may be complying development under the SEPP (Exempt and Complying Development Codes) 2008 where they are attached to an existing, non-residential building and they are not within a Heritage Conservation Area. Additional approvals may be required under the Local Government Act 1993 and the Roads Act 1993.

#### Objectives

1. Weather protection is provided along key streets.
2. A consistent and complementary streetscape is maintained.
3. Active streets are well lit at all times.

4. Awnings are structurally sound.

#### Development controls

1. Continuous shelter from the weather is to be provided for the full extent of the active street frontage.
2. Awnings shall be horizontal or near horizontal (maximum pitch of 10%).
3. Awnings heights shall:
  - be consistent with the existing streetscape; or
  - be no less than 2.7m high at any point measured above the existing ground level.
4. A minimum awning width of 2.5m-3.0m is required unless this cannot be achieved because of narrow pavements and street tree planting, traffic signals, traffic signage or utility poles.
5. New awnings shall be set back a minimum of 450mm from the kerb line.
6. Awnings along sloping streets shall step down in horizontal steps (a maximum of 700mm per step) to follow the slope of the street.
7. All contiguous awnings shall be of consistent height and depth and of complementary design and materials.
8. Awnings and/or canopies shall be provided elsewhere to define public entrances to buildings, including residential flat buildings.
9. Awnings shall wrap around street corners and contribute to the articulation and focal design of corner buildings.
10. New awning fascias have a vertical depth not greater than the average of the vertical depths of the immediately adjoining awning fascias or, if there are no adjoining awning fascias, 350mm.
11. Under awning lighting shall comply with AS/NZS1158 - Lighting for roads and public spaces.
12. Awnings are to be designed and certified by a professional engineer.

### **3.4 Building design**

#### Objectives

1. In existing centres, the design of the building shall complement the streetscape and minimise overbearing.
2. Visually interesting, harmonious roof scapes and skylines are provided.
3. Roofs are used for recreation where practical and desirable.
4. A positive sense of space, safety and openness is created in the public domain.
5. Building security is achieved without compromising the streetscape.

#### Development controls

1. An application for a new building or building works shall:
  - Adopt elements reflected in the dominant era and style of buildings in the centre.
  - Avoid intrusion of incompatible elements.



2. Have a façade height within 20% of the average height of the buildings on either side.
3. Where more than 2-storeys are proposed, the third and higher storeys are setback further by a minimum of 3.0m.
4. In an established street, roof form and roof materials shall be consistent or complementary to those developments in that street.
5. Variations in roof form including the use of skillions, gables and hips are to be provided in the development or between developments.
6. Flat roofs shall be avoided unless they are behind a parapet.
7. Lift over-runs and service plant shall be concealed within roof structures.
8. All roof plant is to be represented on plans and elevations.
9. Outdoor recreation areas on flat roofs shall be landscaped and incorporate shade structures and wind screens to encourage use.
10. Security grills (for e.g. roll-up doors) shall be avoided.
11. If installed, security grilles shall be provided within the building, behind the glazing and be constructed of material that allows the interior to be visible.

### **3.5 Gateway, corner and landmark sites**

#### Objectives

1. Key sites including corner sites are developed to create distinctive and unique buildings that form gateways to town centres.

#### Development controls

1. The design of buildings on corner sites or at the ends of business or commercial zones shall emphasise the importance of the corner as a focal point.
2. Corner sites or at the ends of business or commercial zones shall be constructed to boundary with no car parking or servicing between the street boundary and the building.
3. Corner buildings shall include design devices such as:
  - Increased wall heights;
  - Splayed corner details;
  - Expression of junction of building planes;
  - contrasting building materials; and
  - other architectural features to reinforce the prominence and distinctiveness of the building.
4. Shopfronts shall wrap around corners and entrances located centrally to the corner.
5. The tallest portion of the building shall be on the corner.

### **3.6 Pedestrian Entries and Access**

#### Objectives

1. Equity for all street users is provided.
2. Pedestrian and vehicle access ways are separated where possible and visually

- distinguishable.
3. Conflict between pedestrians and vehicles is minimised during the day and at night.
  4. The design of buildings and spaces shall promote legibility to help users find their way.
  5. Walking and cycling is encouraged.
  6. Secure and convenient parking is provided for bicycles.

#### Development controls

1. The development complies with AS1428 - Design for Access and Mobility .
2. Pedestrian and vehicle movement areas are separated and defined by changes in pavement material, levels, lining or tactile treatments.
3. Parking areas are illuminated (naturally and/or artificially) during the time period the centre is open.
4. Signage is provided at the entries to the development detailing the services available within the centre and where they are located.
5. Signage to key public spaces accessible from the centre such as car parks, food courts shall be provided within the centre.
6. Signage to key facilities such as rest rooms, centre management, baby change rooms shall be provided within the centre.
7. Secure and convenient parking/storing for bicycles is provided close to the entrance of the development and with good surveillance.

### **3.7 Parking, loading and servicing**

#### Objectives

1. Parking, loading and servicing areas are provided that are functional, safe and do not dominate the site or streetscape.
2. Deep soil planted landscaped setback areas are provided.
3. The established structure of town centre streetscapes is maintained.
4. Car parking provision does not undermine an existing streetscape.
5. Alternative solutions that contribute to accessibility of a centre are available in lieu of car parking.

#### Development controls

1. Car parking provision shall be in accordance with Part C11 of the Maitland Development Control Plan 2011.
2. Garage doors and loading docks shall be located at the rear of development, so that they are not a dominant element in the overall presentation of the development to key streets.
3. Signage shall be provided to direct visitors to the centre and to car parking areas.
4. Rear or internalised car parks shall be designed and constructed in a manner which enables future expansion and connection with potential future car parks in neighbouring sites. This includes consideration of levels, drainage and location of existing and future driveways and crossovers.

5. All vehicles must be able to enter and leave any development in a forward direction.
6. Loading and manoeuvring areas for service vehicles shall be separated from car parks and pedestrian paths. Where shared access is provided, no loading or unloading shall be carried out over car parking spaces and access aisles.
7. Where natural or mechanical ventilation of a car park is achieved through the use of metal grills or large openings they shall contribute to the overall design or be screened by landscaping or other design elements.
8. External service areas (for e.g. areas for rubbish storage, cardboard compacting etc) shall not be visible from roadways or public open space areas.
9. External storage and service areas shall be suitably screened from view from both roads and parking areas and pedestrian areas.
10. Basement car parks shall be setback a minimum of 3.0 metres from the street boundary.
11. Where car parking cannot be provided on the site without compromising an established streetscape Council may consider entering into a voluntary planning agreement or similar arrangement for works or contributions that contribute to the overall accessibility of the centre.

### **3.8 Public art, landscaping and public domain works**

#### Objectives

1. Planting shall be provided to shade, soften the built form and enhance its appearance from public viewpoints.
2. Planting is used to soften hardstand and reduce heat retention and reflection.
3. Medium and large trees are retained or planted to improve the amenity of the site.
4. Undeveloped areas of the site do not cause nuisance in terms of dust or erosion.
5. Undeveloped areas of the site positively contribute to the quality of the development.
6. Plant species that minimises Council's maintenance and liability responsibility are used in landscaping.
7. Water sensitive urban design is used where appropriate to assist with stormwater management and water quality.
8. Fencing does not detract from the streetscape.
9. The privatisation of public places is avoided.
10. Rear and side fencing does not detract from the streetscape or from internal areas.
11. Street furniture is coordinated with existing street furniture.
12. Street furniture does not create clutter and obstacles in the public realm.
13. Public art is consistent with Council's Public Art Strategy.

#### Development controls

1. A landscape plan shall be submitted with the development application that shows:
  - Existing vegetation;
  - Vegetation proposed to be removed;
  - Proposed general planting landscape treatment;
  - Design details of hard landscaping elements;

- Major earth cuts, fills and any mounding;
  - Street trees; and
  - Existing and proposed street furniture including proposed signage.
2. The landscape plan for the site achieves the following minimum standards:
- Large trees and spreading ground covers are provided in all landscape areas within the site.
  - Where screening is required, large screening shrubs of an appropriate density and size to complement the scale and bulk of the subject building are provided.
  - At grade car parking areas shall be provided with one tall, branching, mature shade tree for every 4 linear car spaces.
  - All areas less than 1.0 metre in width shall be paved.
  - Where car parking cannot be provided under or behind the building and Council has agreed to permit some or all of the parking in the front setback, a landscaped strip with a minimum width of 3.0m is provided along the entire frontage/s of the site.
  - Any portion of the site that remains undeveloped or vacant after development shall be landscaped.
  - All street plantings are to be selected from Council's landscaping policy or with the agreement of Council's Coordinator Recreation and Tree Services.
  - Water sensitive urban design facilities (such as swales, bio-detention ponds and rain gardens) are used to treat stormwater for at-grade car parking areas.
  - Water sensitive urban design facilities are designed in accordance with Council's Manual of Engineering Standards.
  - Fencing for security or privacy shall not be erected between the building line and the front boundary of a site.
  - Where fences are erected, landscaping of an appropriate height and scale shall be provided to screen the fence and achieve an attractive appearance to the development when viewed from the street or other public place.
  - Street furniture (including seats, bollards, signage, grates, grills, screens and fences, bicycle racks, flag poles, banners, litter bins, telephone booths and drinking fountains) and streetscape treatments are provided in accordance with Council's Public Domain Design Manual or with agreement of the Executive Manager Appearance and Infrastructure.
  - Any public art is provided in accordance with Council's Public Art Strategy.

### **3.9 Setbacks**

#### Objectives

1. The established character of the street is reinforced.
2. The existing rhythm of the street and its built form is maintained.
3. The development provides adequate pedestrian areas and integrates into the adjoining sites.
4. A consistent streetscape or a streetscape consistent with Council's public domain design plan is achieved.
5. Structures and queues do not impede pedestrian movement.



6. Any ramps are to be integrated into the overall building and landscape design.

#### Development controls

1. Development along identified active streets must be built-to-boundary.
2. In all other cases, building shall be setback within 20% of the average of the adjoining buildings.
3. All pedestrian paved areas along an active street are to have a minimum paved width of 3.5m.
4. The 3.5m paved setback:
  - is clear and accessible for pedestrians for its entire length and width;
  - is clear of columns (other than awning posts where provided) and other obstructions;
  - may include outdoor dining where a minimum footway clearance width of:
    - 1.8m for high volume pedestrian areas; or
    - 1.5m in all other circumstances; is maintained.
  - has a pavement matching the gradient of the adjoining footpath and connects to pedestrian areas on neighbouring sites; and
  - connects without any lip or step to adjoining footpaths or abutting pedestrian areas on neighbouring sites.
5. Pavements, furniture and landscaping are to be designed in accordance the applicable Public Domain Design Manual or in consultation with Council's Executive Manager Appearance and Infrastructure.
6. Steps, escalators, ramps or lifts are not located within the 3.5m paved, pedestrian area.
7. Any automatic teller machine:
  - is inset 1.5m into the building line;
  - is well illuminated at all times.
8. Ramps are constructed and finished with materials that are similar or complimentary to those used on the building or in the street.

### **3.10 Waste management**

#### Objectives

1. Waste generation is minimised through design, material selection and building practices.
2. Waste management minimisation is encouraged by including source separation, reuse and recycling facilities.
3. Efficient storage and collection of waste and quality design of facilities.

#### Development controls

1. A waste management plan for the construction and/or occupation of the development is provided that:
  - Recycles and reuses demolished materials where possible;
  - Integrates waste management processes into all stages of the project;

- Specifies building materials that can be reused and recycled at the end of their life; and
  - Uses standard components and sizes to reduce waste and facilitate update in the future.
2. Separate storage bins for collection of organic waste and recyclable waste are provided within the development.
  3. Bulk waste facilities shall be stored in a designated area that is physically and visually integrated into the development at ground or sub-basement level that:
    - is not visible from the street or public domain;
    - is easily accessible to businesses;
    - may be serviced by collection vehicles;
    - has water and drainage facilities for cleaning and maintenance;
    - does not immediately adjoin onsite employee recreation area; and
    - be maintained to be free of pests.
  4. Cardboard compactors shall be provided for large retail and commercial developments.
  5. Where waste facilities cannot be collected at the street, evidence that the site can be serviced by a waste collection service shall be provided.

### **3.11 Vehicular access**

#### Objectives

1. In centres, pedestrians are prioritised over vehicles.
2. Conflict points between pedestrians and vehicles are minimised.
3. Car parking does not deactivate public space, including streets, laneways and share ways.
4. Underground car parking is integrated into the building design and streetscape.

#### Development controls

1. The number of vehicular crossovers shall be kept to a minimum.
2. Access and egress points are designed so that exiting vehicles have clear sight of pedestrians and cyclists.
3. Any car park ramps are located within the building footprint.
4. Access and egress to car parks is achieved in a forward direction.
5. Vehicular entrances to underground car parks are:
  - located on minor streets;
  - have a maximum crossover width of 6.0m;
  - signed and lit appropriately;
  - designed so that exiting vehicles have clear sight of pedestrians and cyclists.
6. All stairs and elevators in the parking structure are clearly visible.
7. The street level frontage of car parking structures (including multi-level car parks) where adjoining public places, including active streets, share ways and laneways, shall present an active frontage along the entire frontage less any car park entry.
8. Internal finishes of underground car parks shall be consistent with the external

materials where they are visible from the public realm.

9. Underground car parks shall be designed for natural ventilation.
10. Ventilation ducts/grilles shall integrate with the streetscape and be unobtrusive and/or appropriately screened.
11. Garage doors to underground parking shall be designed to complement the materials used elsewhere on the development.

### **3.12 Development adjoining sensitive land uses**

#### Objectives

1. Commercial and retail development does not unreasonably affect the amenity of adjoining sensitive uses.
2. The interface between business and commercial development and adjoining residential areas is of a high quality and achieves adequate visual and acoustic privacy.

#### Development provisions

1. The development is designed so that all vehicle movement areas and servicing areas are located away from adjoining residential areas.
2. Where this cannot be achieved, visual and acoustic treatment of the interface is required.
3. The building elevation adjoining the residential area shall be:
  - Articulated, with changes in setback at intervals no greater than 10m;
  - Use a variety of materials and treatments;
  - Be setback a minimum of half the height of the wall or a minimum of 3.0 metres whichever is greater.

### **3.13 Mixed use development**

#### Objectives

1. Residential development is integrated with compatible retail and commercial uses.
2. To ensure that the design of mixed use developments maintains a reasonable level of residential amenity and preserves compatibility between uses.
3. Flexible building design to accommodate a range of uses and to allow for changes to uses over time is encouraged.

#### Development controls

1. Mixed use developments are located in areas close to key business, commercial and employment centres with good public transport accessibility.
2. The development shall be designed so that loading bays, garbage collection areas and noise and odour generating aspects of buildings are located away from residential areas.

3. Vehicular circulation systems are legible and differentiate between commercial service requirements, such as loading docks, and residential access.
4. All mixed use buildings shall be provided with a separate entry to the residential component of the development. The entry must be directly visible from a trafficable street and clearly demarcated from entries to commercial premises.
5. Security entries are to be provided to all entrances into private areas, including car parks and internal courtyards.
6. Where possible acoustic separation between loud commercial uses (such as cafés and restaurants) and residential uses is achieved by utilising an intermediate quiet-use barrier, such as offices.
7. Plant is located on the roof or visually and acoustically isolated from the residential uses.
8. Buildings are to have a simple and efficient structural grid.
9. The number of internal, apartment structural walls is minimised.
10. Ceiling heights for the ground and first floors shall be 3.3m.

### **3.14 Thornton**

#### Objectives

1. The amenity of the Thornton town centre is improved.
2. The Thornton Town Centre shall become the focus of entertainment, retail and community activities for the residents of Thornton and the surrounding areas.
3. A variety of uses that activates the centre throughout the day and evening is encouraged.
4. The centre integrates with the adjoining sports and community facilities.

#### Development controls

1. A comprehensive urban design masterplan shall be prepared for the centre ahead of any significant development.
2. The masterplan should improve the centre's relationship with Taylor Avenue and Thornton Park.
3. The urban design strategy shall consider the following:
  - Constructing an active edge to Taylor Avenue.
  - Providing a corner treatment (preferably a building with an active edge) at the intersection of Taylor Avenue and Thomas Coke Drive.
  - Providing an active edge to Thornton Park.

### **3.15 Rutherford**

#### Objectives

1. The Rutherford Town Centre is reinforced as the location of entertainment, retail and community activities for the residents of Rutherford and the surrounding areas.
2. Access, movement and way finding to and within the centre is improved.
3. Safety in and around Rutherford Town Centre is improved.



4. Greater activation of the centre is encouraged.
5. The future development of the business-zoned, residential area along Arthur and Weblands Street and North Mall and Alexandra Avenue is planned to integrate into the centre.
6. A continuous, integrated development front along Arthur and Weblands Streets shall be provided.

#### Development controls

1. A comprehensive urban design masterplan shall be prepared for the centre ahead of any significant development. The urban design masterplan shall:
  - Include a parking, access and movement strategy.
  - Identify a new (or refurbished) area for public uses, such as a town square or piazza.
  - Recommend treatments to reduce the impact of the extensive hardstand.
  - Review signage to improve way finding into and throughout the centre.
  - Consider future integration of the commercially zoned, residential lots.
  - Consider the interface between the centre and the adjoining residential development.
2. Development along Arthur Street and Weblands Street shall be built boundary to boundary.

### **3.16 Central Maitland**

◆ The following Central Maitland precinct requirements are currently under review and shall be updated in the near future. Development applications in Central Maitland must address the Centres provisions above as well as the following provisions.

#### INTRODUCTION

The Lower Hunter Regional Strategy and Council's own planning frameworks identify Central Maitland as the primary centre and "heart" of the Maitland LGA.

Council recognised that additional strategies were necessary to support the development of Central Maitland in the face of increasing commercial development in locations such as Rutherford and Greenhills.

The Central Maitland Structure Plan (2009) was prepared to ensure that Central Maitland's role as the primary centre within Maitland is maintained and to improve the interrelationships between the many functions – professional services, commercial operations, government, community, retail, cultural and entertainment – that make it distinct from other centres within Maitland that focus primarily on retail/commercial activities.

This chapter of the DCP will require extensive review to reflect the recommendations and directions arising from the Central Maitland Structure Plan and the provisions in the Maitland LEP 2011.

In the interim, the chapter remains essentially unchanged from the Maitland Citywide DCP. The chapter will contain anomalies between the LEP and the DCP. Council staff should be consulted to discuss the relevance of any particular provisions.

This chapter:

1. encourages the development of non-residential development able to withstand the effects of flooding;
2. provides opportunities for housing on land generally above the 1 % flood level, and to allow the replacement of flood affected housing turned over to other uses, subject to flood proofing measures in new housing, and limits on the amount of new housing to ensure the overall numbers of people exposed to flood risk do not increase;
3. recognises and aims to strengthen Central Maitland's regional, commercial, entertainment, historical, tourism and recreation roles and functions; and
4. aims to facilitate and encourage the provision of shoptop housing in commercial areas as a means of continued revitalisation of Central Maitland, through the use of a flexible, performance based approach to such development.

#### Application

This plan applies to land to which Maitland Local Environmental Plan 2011 applies.

The land known as Central Maitland includes the localities of Horseshoe Bend, South Maitland and Central Maitland.

#### Purpose

The purpose of this plan is to give detailed guidance to people wishing to develop within Central Maitland and to indicate Council's policies with respect to development.

#### Objectives

1. To minimise the public and private costs of flood damage and the risk to life of floods by encouraging construction and development which is compatible with the flood risk of the area;
2. To ensure that any new development incorporates flood precaution and protection measures;
3. To contain the spread of new urban development in flood-prone areas;
4. To promote the development of Central Maitland as a regional commercial, entertainment and recreation centre and to ensure it functions effectively as a centre;
5. To ensure the preservation of the existing historical character of Central Maitland, and of individual historic buildings and precincts;
6. To generally promote development as a means of achieving urban improvement; and

7. To maintain the viability of Central Maitland by encouraging shoptop housing through the use of a flexible, performance/merits based approach to such development.

#### DEVELOPMENT APPLICATIONS – GENERAL PRINCIPLES

In making or determining a development application on land the subject of this plan, the applicant and the Council respectively shall have regard to a number of planning principles.

A statement, which adequately addresses these principles, shall be prepared and accompany the development application. These principles are as follows:-

1. The development will not increase the flood hazard or flood damage to other properties, or adversely affect them in any way during times of floods.
2. Development should be designed in such a manner that the risks of structural failure or damage in the event of flood, including damage to other property, are minimised.
3. Development should be designed to withstand the effects of inundation of floodwaters, including the incorporation of measures to raise floor levels, to prevent the entry of floodwater by way of levees or the like, to seal or floodproof buildings, to avoid activities or fittings susceptible to flood damage, or to store the contents of buildings above the Flood Standard.
4. Permanent, fail safe, maintenance free measures are incorporated in the development to ensure the timely, orderly and safe evacuation of people from that area, should a flood occur. In addition, it must be also demonstrated that the displacement of these people during times of flood will not significantly add to the overall cost and community disruption caused by the flood.
5. Applications for development on land below the flood standard should be accompanied by information describing the intended method of evacuation or removal of people, goods, material, plant equipment or livestock, in the event of a flood.
6. Land above the flood standard should be carefully managed to enable it to be used for high intensity development that is less able to locate in flood prone areas.
7. Development should not have the effect of increasing the exposure of people to risk or life or health in the event of a flood, and wherever possible should contribute to a reduction of such risk.
8. Development should as far as possible contribute to the functioning of Central Maitland as a commercial, historical, tourist, recreation and entertainment centre.
9. Development should be of a type, height and scale that is compatible with the existing urban and historic fabric and to the maximum extent, consistent with the expansion of the functions of the centre.
10. Construction methods and materials used at levels below the flood standard shall conform with Part 8 – Flood Proofing Guidelines.
11. The design and materials of buildings and signage shall be such as to enhance the historic character of Central Maitland.

## DEVELOPMENT IN THE 2(B) FLOOD LIABLE RESIDENTIAL ZONE

### Objectives

Development proposed on land within zone 2(b) Flood Liable Residential shall be in accordance with the following objectives:

1. To ensure that the proposed development does not increase the stock of residential accommodation on flood prone land;
2. That the proposed development reinforces the commercial, tourism, recreation, historical and entertainment function of Central Maitland;
3. The development is designed and capable of being operated in a manner which minimises the risk of damage in the event of flood.

In order to achieve the above objectives the Council shall:

1. Give preference to commercial development on land which adjoins land within zone 3(a) or 3(b);
2. encourage those developments associated with trotting to be located on land within close proximity to Maitland Showground;
3. encourage agricultural uses or purposes associated with agriculture.

### Non-Residential Development

Development for non-residential purposes shall be such that:

1. The development shall not result in a general loss of amenity to the surrounding area;
2. The development will have no more than a minor impact on the level and velocity of flood waters in the locality; and
3. The development will be constructed so as to comply with the Flood Proofing Guidelines as set out in Part 7.

Where non-residential development is proposed, the following special provisions apply:

1. Any non-residential development must be compatible in scale with other buildings in the immediate streetscape and /or with adjoining buildings on neighbouring properties;
2. New buildings should enhance and make a positive contribution to the streetscape. Buildings should address and front the street by incorporating main entries and windows in the front façade. The development should use building, window and door proportions and external materials and colours that resemble those predominating in the adjacent streetscape;
3. On-site car parking or garages should not be located on street frontages or dominate the streetscape;
4. Developments are to be designed, constructed and operated to minimise the potential for offensive noise generation. Council may require the provision of an acoustic study to establish noise levels and to provide a mitigation strategy;



Non-residential development proposals shall be advertised to afford residents of the locality the opportunity to view the proposal and make submissions to Council in relation to the proposal prior to the determination of the application. In determining the application Council shall take into account any submission received during the public exhibition period.

### Renovations and Additions to Existing Dwellings

- a) Maintenance and minor repairs to existing dwellings are permitted as they do not require Council's approval.
- b) DELETED AND REPLACED WITH THE FOLLOWING:

In accordance with Council's resolution of 25<sup>th</sup> July 2000, Council resolved to remove the 20% limitation on extensions to existing dwellings in the 2(b) Flood Liable Residential Zone. Council now considers applications on a merits based assessment in accordance with the requirements contained within Development Control Plan No. 29 – Hunter River Floodplain Management.

The relevant extract from DCP No. 29 relating to additions in the 2(b) Flood Liable Residential Zone has been reproduced below.

### **2(b) Flood Liable Residential**

*"30. In addition to the provisions of Clauses 16-20 in Maitland LEP 1993, and any relevant DCP's, the following controls apply.*

- a) Maintenance and minor repairs to existing dwellings are permitted and these do not require Council approval.*
- b) Applications for additions to existing buildings will be assessed on their merits, having regard to the following matters:*
  - 1) the size and scale of the proposed addition,*
  - 2) whether the addition is above or below the flood standard,*
  - 3) whether the addition will significantly increase the habitable floor space of the dwelling,*
  - 4) the effect that the development will have on the population levels of Central Maitland,*
  - 5) the effect that the development will have on heritage and the existing streetscape,*
  - 6) the impact that the development will have on flood flows, whether existing services are capable of handling the development.*
- c) Any materials used in the construction of additions or renovations to existing dwellings shall be of a similar type to the main structure as long as they do not compromise the safety of the occupants in floods up to the nominated level as defined in Clause 24(b).*
- d) Any Development Application will require that provision is made for the safe evacuation of people and the flood free storage of household effects."*

- c) Rebuilding of part of a dwelling may be permitted provided the part being rebuilt exits as an integral part of the dwelling and must be rebuilt solely because of:
  - i) a rationalisation of function within the building; or
  - ii) the form of construction to be used for any additions requires the rebuilding of that section of the dwelling.
- d) Any materials used in the construction of additions or renovations to existing dwellings shall be of a similar type to the main structure.
- e) Council shall not consent to the renovation of a dwelling which significantly extends the life of the dwelling unless provision is made for the safe evacuation of people and the flood free storage of household effects.
- f) All renovations and additions shall comply with the Flood Proofing Guidelines as set out in Part 8, except where the dwelling is identified as an item of environmental heritage.
- g) In the event of a dwelling being destroyed the Council will consider an application for the rebuilding of the dwelling on its merits, having regard to flooding, heritage and environmental factors. Any replacement dwelling approved by Council shall be constructed in accordance with the flood proofing guidelines specified in Part 8 of this DCP and such that all habitable floor levels are a minimum of 500mm above the flood standard.

#### Rural Workers Dwellings

1. a) The Council may grant consent to the erection of a rural workers dwelling provided the residence is associated with agriculture and is appropriately designed to withstand the effects of flooding.
- b) Where an application is made pursuant to Clause 4.4(1)(a), Council must be satisfied that the landowner derives the majority of his/her income from the agricultural pursuit and that the agricultural enterprise is or will be economically viable as an entity within itself. In order to satisfy this requirement the applicant must furnish a detailed submission setting out the reasons why a new dwelling house is required and the nature of the agricultural pursuit.
- c) Rural workers dwellings shall only be permitted on the land holding on which the major operational part of the agricultural enterprise is located.
- d) The habitable floor level of any new dwelling shall not be less than the Design Floor Level.
- e) Construction methods and materials shall comply with the Flood Proofing Guidelines which form Part 8 of this Development Control Plan.
- f) Applications for Construction Certificates shall be accompanied by a survey plan showing the relative levels to A.H.D. of the ground level, flood standard and design floor level prepared by a registered surveyor.
- g) A certificate by a practicing Structural Engineer is to be submitted with the construction certificate certifying that the proposed structure is capable of withstanding the effects of immersion in times of flood, having due regard to the characteristics of flooding in the locality.

- h) A certificate by a registered surveyor certifying the level of the habitable floors of the building is required by Council prior to construction proceeding beyond habitable floor level.
  - i) Provision is to be made within the design of the proposed dwelling for a safe and clear means of evacuation in time of flood from the first floor. This means of evacuation is to be detailed in the building application for the proposed dwelling.
2. The following conditions apply to horse training enterprises and must be read in conjunction with (1) above:
- a) the training enterprise shall provide a significant part of the applicant's income;
  - b) the rural dwelling must be occupied by the horse trainer;
  - c) the site must be within close proximity to the Maitland Showground;
  - d) the site must be large enough to accommodate a minimum number of eight (8) horses (this is considered a viable operation), the rural dwelling and associated storage area;
  - e) the dwelling and stables shall be located on the same land parcel;
  - f) the development will not by its nature interfere with the amenity of the locality;
  - g) the horse stables are to be established prior to the issue of a Construction Certificate for the associated rural dwelling;
  - h) appropriate flood proofing and flood protection measures must be incorporated into the development; and
  - i) an evacuation plan for the relocation of the horses in times of flooding must be submitted to Council.

#### DEVELOPMENT IN ZONE 2(A) RESIDENTIAL

In considering development applications for land within the 2(a) Residential zone the Council shall have regard to the primary purpose of the zone to provide opportunities for residential development to offset the longer term reduction of population likely to result from redevelopment of other land the subject of this plan.

#### Non-Residential Development

- a) The Residential 2(a) zone permits a range of non-residential uses which, depending on their scale, location and design may be compatible with residential uses.
- b) Depending on the scale of the development Council may require the submission of additional information to demonstrate that the development will not adversely affect the existing or future amenity of the area. Such information may include noise studies, advice on traffic generating potential, etc.

#### New Residential Development

- a) Subject to sub-clause 4.1, the Council shall not grant consent to the erection of a dwelling house, boarding house or residential flat building on any land within the 2(a) Residential zone where the level of inundation in a 1% flood exceeds 1.5 metres above ground level.

- b) For the purposes of subclause (a) “ground level” includes a finished level after filling, where the Council has approved the filling and is satisfied that it will not adversely affect flood behaviour on other land.

### Development Generally

In considering an application for development Council will generally –

- a) i) advise adjoining property owners and others who may be affected by the development; or  
ii) in addition to (i), erect a notice on the land and advertise the application in the local newspaper;
- b) allow the public a minimum of 14 days to comment on the proposal;
- c) consider any comments made by the public on the proposal before determining the application.

### DEVELOPMENT IN ZONE 3(A) GENERAL BUSINESS

In considering development applications for land within zone 3(a) General Business, the Council shall have regard to the primary purpose of the zone to consolidate retailing activity, and may give preference to development for the purpose of shops of a type likely to suffer high damage costs if otherwise located on land below the Flood Standard.

### Restrictions on Ground Level Development

Development for the purposes of commercial premises, or residential flat buildings shall generally be prohibited at ground level on any street frontage, provided that the Council may grant consent to development for the purposes of commercial premises on ground level where it is satisfied that the particular purpose requires such location and supports the retail functions of land in zone 3(a).

### Site Amalgamation

In considering any development within zone 3(a), Council shall have regard to the potential amalgamation of sites for development or redevelopment purposes and the extent to which any development proposal may deter or hinder the amalgamation of such sites.

### Advertising

In considering sign applications due regard shall be given to the type of sign, the size of the sign and the character of the building upon which the sign is to be erected. The sign shall be appropriately positioned so that the sign does not detract from the building façade or adjoining property facades.

### Shop-top Housing



Development for the purpose of shop-top housing is permissible and will be considered in the 3(a) General Business zone. Applications for such development will generally be supported where the commercial uses on the ground floor are consistent with the objectives of the 3(a) zone, and Council is satisfied that the shop-top housing requires such a location and supports the retail and commercial functions of the land.

### DEVELOPMENT IN ZONE 3(B) SUPPORT BUSINESS

In considering development applications for land within the 3(b) Support Business zone, the Council shall have regard to the primary purpose of the zone to provide for commercial development associated with or in support of the functions of zone No. 3(a) General Business.

#### Office Development

Development for the purposes of offices on land within zone 3(b) Support Business should be designed to ensure that plant, equipment, storage or other fixtures or fittings liable to damage by floods are located within the building above the flood standard.

#### Advertising Signs

In considering sign applications due regard shall be given to the type of sign, the size of the sign and the character of the building upon which the sign is to be erected. The sign shall be appropriately positioned so that the sign does not detract from the building façade or adjoining property facades.

#### New Development

Any new development shall meet the requirements of Part 8 – Flood Proofing Guidelines.

#### Shop-top Housing

Development for the purpose of shop-top housing is permissible and will be considered in the 3(b) Support Business zone. Applications for such development will generally be supported where the commercial uses on the ground floor are consistent with the objectives of the 3(b) zone, and Council is satisfied that the shop-top housing requires such a location and supports the retail and commercial functions of the land.

### FLOOD PROOFING GUIDELINES

These guidelines are to be read in conjunction with Parts 3 to 7. The guidelines are designed so as to ensure that materials and equipment are not adversely affected by floodwater.

Compliance with these guidelines is not to be taken as any indication that Council will approve any building or development in flood liable areas. The guidelines seek merely to assist in the minimisation of flood losses.

## Guidelines

1. The guidelines have been extracted from “Housing in Flood Prone Areas” (Australian Department of Housing and Construction”, 1975).
2. Construction methods and materials have been graded into four classes according to their resistance to floodwaters. These classes are:-

**Most Suitable:** the materials or products which are relatively unaffected by submersion and unmitigated flood exposure and are the best available for the particular application.

**2<sup>nd</sup> Preference:** where the “most suitable” materials or products are unavailable or economic considerations prohibit their use, these materials or products are considered the next best choice to minimise the damage caused by flooding.

**3<sup>rd</sup> Preference:** as for “2<sup>nd</sup> Preference” but considered to be more liable to damage under flood conditions.

**To Be Avoided:** the materials or products listed here are seriously affected by floodwaters and in general have to be replaced if submerged.

3. Table 1, attached provides a list of materials by building component within each grading.
4. Materials listed in the “to be avoided” column of Table 1 shall not be permitted where the proposed use is below the flood standard.
5. All new buildings and extensions constructed in flood liable areas shall, where practicable, conform to the following requirements:-

### *a) Rural Workers Dwelling*

- i) Main Power Supply – subject to approval of Energy Australia – the incoming main commercial power service equipment, including all metering equipment, shall be located above the D.F.L. Means shall be available to easily disconnect the dwelling from the main power supply.
- ii) Wiring – all wiring, power outlets, switches, etc should, to the maximum extent possible, be located above the D.F.L. All electrical wiring installed below the D.F.L. should be suitable for continuous submergence in water and should contain no fibrous components. Only submersible type splices should be used below the D.F.L. All conduits located below the D.F.L should be so installed that they will be self-draining if subjected to flooding.
- iii) Equipment – all equipment installed below or partially below the D.F.L. should be capable of disconnection by a single plug and socket assembly.
- iv) Reconnection – should any electrical device and/or part of the wiring be flooded it should be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.
- v) Heating and Air Conditioning Systems – heating and air conditioning systems should, to the maximum extent possible, be installed in areas and spaces of the house above the D.F.L. When this is not feasible every precaution should

be taken to minimise the damage caused by submersion according to the following guidelines.

- vi) Fuel – heating systems using gas or oil as a fuel should have a manually operated valve located in the fuel supply line to enable cut off.
- vii) Installation – the heating equipment and fuel storage tanks should be mounted on and securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks should be vented to an elevation of 600 millimetres above the D.F.L.
- viii) Ducting – all ductwork located below the D.F.L. should be provided with openings for drainage and cleaning. Self-draining may be achieved by constructing the ductwork on a suitable grade. Where ductwork must pass through a watertight wall or floor below the D.F.L. the ductwork should be protected by a closure assembly operated from above D.F.L. Where, in the opinion of the Council, a proposed development could be damaged by flooding no work shall commence until a certificate of structural adequacy with regard to stability as a result of flooding has been submitted by a qualified structural/civil engineer.

*b) Residential Development – Existing Dwellings*

- i) Where additions and alterations to existing buildings include habitable rooms, the above requirements should apply except where, in the opinion of Council, the floor level requirement is unreasonable in particular circumstances.
- ii) Where additions and alterations do not involve habitable rooms applicants should be notified of the likelihood of proposals being flooded and should be required to ensure that any new structures do not adversely effect the existing flow of floodwaters.

*c) Commercial and Industrial – New and Existing*

- i) Applicants should refer to the requirements a) (i) to (viii) above.
- ii) Where applications for development in flood liable areas are considered, Council requires that a survey plan, prepared by a registered practicing surveyor and showing relative levels to A.H.D. of the flood standard and design floor level be submitted.
- iii) All applications should be accompanied by a certificate from a qualified practicing structural or civil engineer stating that the building is capable of withstanding the effects of immersion in time of flood, having due regard to the characteristics of flooding in the locality.
- iv) Any development consent in relation to applications for new buildings, alterations to existing buildings or change of use will be endorsed with advice on matters affecting the land including flood damage.

*d) Other Development*

- i) Developments such as sporting grounds, open air car parks and storage areas will be considered on flood liable land.
- ii) Any consents for such development may require certificates from surveyors and engineers as referred to above.

## SHOP-TOP HOUSING DEVELOPMENTS

### General Provisions

Council recognises that shop-top housing can help to revitalise Central Maitland by bringing residents back into the commercial heart of the City. Shop-top housing boosts the population of the City, helps conserve heritage buildings and more fully utilises existing space and services.

Council is generally supportive of shop-top housing developments in Central Maitland and has introduced the following flexible guidelines to encourage such development.

### Development Guidelines

#### *Car Parking:*

In accordance with Council's Car Parking Code (DCP No. 40), Council does not require car parking for the residential component of the development for existing floor space, however applications to Council must demonstrate due consideration of car parking arrangements, including availability of adjacent parking, access to public transport and or the historical lack of physical access to parking.

Parking requirements for any commercial floorspace associated with the development will be assessed in accordance with Car Parking Code.

Parking requirements for new residential floor space will be assessed at one (1) car parking space per dwelling. Visitor car parking space will be assessed at one (1) visitor space for the first three (3) dwellings and one (1) space for every five (5) thereafter or part thereof.

#### *Design Considerations:*

Any application for housing must be assessed in accordance with DCP No 22 – Lower Hunter Urban Housing which sets out standards for high quality urban design, including provisions for residential amenity, privacy, noise, vehicular access and open space. However, for applications for shop-top housing, it is recognised that many of these provisions will be difficult, if not impossible to achieve, particularly where major alterations to an existing building are not possible or practical. The following factors therefore should be considered in the design of shop-top housing developments:

- an efficient internal layout with respect to access to each unit and any common areas of the building;
- a separately identifiable residential entry and address;



- separation of services (e.g. garbage, utility installations);
- provision of natural light to common areas where possible;
- security for common areas, including residential parking when and if this is provided;
- access to direct sunlight within one room for at least 2 hours between 9.00am and 3.00pm on the 21st June.
- access to natural light and ventilation for each habitable room, preferably through the use of windows;
- maximisation of visual and acoustic privacy;
- provision of external living areas, including balconies, roof deck and the like where possible provided that they do not detract from the significance of the building or locality;
- optimisation of views and outlook;
- minimisation of vehicular access points to the site and consideration of the broader pedestrian network;
- provision of storage for each unit;
- consideration of access to carparking, privacy, noise and solar access for adjoining residential development; and
- garbage collection services and access for tradespersons and furniture removalists.

Each application will be assessed on its merits, having regard to the specific locality, the practicalities of achieving the above provisions and any constraints associated with the heritage significance of the particular site. Council will seek to ensure that there is a high standard of housing design and that residents are comfortable within their environment.

#### *Section 94 Contributions*

##### Existing Buildings/Conversions:

Applications for shop-top housing that involve the conversion of existing floorspace for residential uses will not be liable for Section 94 Contributions if there is no increase in the number of dwellings that were historically located on the site. Applicants will be required to demonstrate to Council the number of dwellings that were historically located on the site for Council to waive this contribution. If the application for shop top housing proposes to increase this number, a section 94 contribution will be required for each additional unit.

##### New Buildings:

All new floorspace for residential development will be subject to Section 94 Contributions in accordance with Council's adopted Section 94 Contributions Plan.

#### Building Legislation

Each application for shop-top housing will need to include an assessment of the deemed to satisfy provisions of the Building Code of Australia, or provide suitable evidence as to performance based alternatives. Such alternatives need to be suitably certified by appropriately qualified persons.

The following requirements are typical of those that need to be assessed for compliance:

- Fire Resistance Levels achieved in external walls in proximity to Fire Source Features
- Fire Separation and/or compartmentation between classifications (i.e. between residential (Class 4) and the remainder of the building (typically Class 6))
- Safe egress from the building in emergencies, which may include fire isolated stairwells, external fire stairs and/or isolated paths of travel to the required exits
- Essential fire services such as fire hydrants, fire hose reels, fire shutters, smoke detectors, portable fire extinguishers, emergency lighting and illuminated exit signs
- Disabled access and facilities. (NB: there may be some concessions in this regard where no changes are proposed for existing uses related to shops or retail outlets.)

Council's Building Surveyors should be consulted as early as possible in the design and concept stages of a project so as to provide appropriate advice and direction.

### *Flooding*

A survey plan is to be submitted with the application for shop top housing, verifying that floor levels of all habitable rooms for new and existing floor space are 500mm above Council's Flood Standard. All developments located in the floodplain shall take the requirements of DCP No. 29 – Hunter River Floodplain Management into consideration.

### *Rating Relief*

Applicants who undertake shop-top housing developments, can, upon completion of the development, apply to Council for rating relief for the residential component of the development. Each application will be assessed on its merits, with the residential component generally being apportioned via the Valuer General's determination.

### *Accessible Living*

Each application for shop top housing for existing floor space will be assessed on its merits. Applications for shop top housing for new floor space will be assessed in accordance with Chapter C.1: Accessible Living.

TABLE 10 Flood Proofing Code

component	order of preference suitable	mild effects	marked effects	severe effects
flooding and sub-floor structure	<ul style="list-style-type: none"> <li>concrete slab-on-ground monolith construction</li> <li>note: clay filling is not permitted beneath slab-on-ground construction, which could be inundated</li> <li>suspension reinforced concrete slab</li> </ul>	<ul style="list-style-type: none"> <li>timber floor (T &amp; G boarding, marine plywood) full epoxy sealed joints</li> </ul>	<ul style="list-style-type: none"> <li>timber floor (T &amp; G boarding, marine plywood) with ends only epoxy sealed on joints and provision of side clearance for board swelling</li> </ul>	<ul style="list-style-type: none"> <li>timber close to ground with surrounding base</li> <li>timber flooring with ceilings or soffit brags</li> <li>timber flooring with seal on top only</li> </ul>
floor covering	<ul style="list-style-type: none"> <li>clay tile</li> <li>concrete, precast or in situ</li> <li>concrete tiles</li> <li>epoxy, formed-in-place</li> <li>massic flooring, formed-in-place</li> <li>rubber sheets or tiles with chemical-set adhesives</li> <li>silicone floors formed-in-place</li> <li>vinyl sheets or tiles with chemical-set adhesive</li> <li>ceramic tiles, fixed with mortar or chemical-set adhesive</li> <li>asphalt tiles, fixed with water resistant adhesive</li> </ul>	<ul style="list-style-type: none"> <li>cement/numerous formed-in-place</li> <li>cement/later formed-in-place</li> <li>rubber tiles with chemical-set adhesive</li> <li>terazzo</li> <li>vinyl tile with chemical-set adhesive</li> <li>vinyl-asbestos tiles</li> <li>asphaltic adhesives</li> <li>loose rugs</li> <li>ceramic tiles with acid and alkali-resistant grout</li> </ul>	<ul style="list-style-type: none"> <li>asphalt tiles with asphaltic adhesive</li> <li>loose fit nylon or acrylic carpet with closed cell rubber underlay</li> </ul>	<ul style="list-style-type: none"> <li>carpeting, glue-down type or fixed with smooth edge on joint felts</li> <li>chipboard (particle board)</li> <li>cork</li> <li>linoleum</li> <li>PVA extension cements</li> <li>vinyl sheets or tiles coated on cork or wood backings</li> <li>fibre matting (sea-grass matting)</li> </ul>
wall structure (up to the DFL)	<ul style="list-style-type: none"> <li>solid brickwork, blockwork, reinforced, concrete or mass concrete</li> </ul>	<ul style="list-style-type: none"> <li>two skins of brickwork or blockwork with inspection openings</li> </ul>	<ul style="list-style-type: none"> <li>brick or blockwork veneer construction with inspection openings</li> </ul>	<ul style="list-style-type: none"> <li>inaccessible cavities</li> <li>large window openings</li> </ul>
roofing structure (for situations where DFL is above the ceiling)	<ul style="list-style-type: none"> <li>reinforced concrete construction</li> <li>galvanised metal construction</li> </ul>	<ul style="list-style-type: none"> <li>timber trusses with galvanised fittings</li> </ul>	<ul style="list-style-type: none"> <li>traditional timber roof construction</li> </ul>	<ul style="list-style-type: none"> <li>inaccessible flat roof construction</li> <li>ungalvanised steel work e.g. linings, arch bars, tie rods, beams etc.</li> <li>unsecured roof tiles</li> </ul>

component	order of preference suitable	mild effects	marked effects	severe effects
doors	<ul style="list-style-type: none"> <li>solid panel with water proof adhesives</li> <li>flush door with marine ply filled with closed cell foam</li> <li>painted metal construction</li> <li>aluminium or galvanised steel frame</li> </ul>	<ul style="list-style-type: none"> <li>flush panel or single panel with marine plywood and water proof adhesive</li> <li>T &amp; G lined door, framed sided and brood</li> <li>painted steel</li> <li>timber frame fully epoxy sealed before assembly</li> </ul>	<ul style="list-style-type: none"> <li>fly-wire doors</li> <li>standard timber frame</li> </ul>	<ul style="list-style-type: none"> <li>hollow core ply with PVA adhesives and honeycomb paper core</li> </ul>
wall and ceiling linings	<ul style="list-style-type: none"> <li>asbestos-cement board</li> <li>brick, face or glazed</li> <li>clay tile glazed in waterproof mortar</li> <li>concrete</li> <li>concrete block</li> <li>steel with waterproof applications</li> <li>stone, natural solid or veneer, waterproof grout</li> <li>glass blocks</li> <li>glass</li> <li>plastic sheathing or wall with waterproof adhesive</li> </ul>	<ul style="list-style-type: none"> <li>brick, common</li> <li>plastic wall ties</li> <li>metal, non ferrous</li> <li>rubber mouldings and trim</li> <li>wood, solid or exterior grade plywood fully sealed</li> </ul>	<ul style="list-style-type: none"> <li>chipboard exterior grade</li> <li>hardboard exterior grade</li> <li>wood, solid (boards or trim) with allowance for swelling</li> <li>wood, plywood exterior grade</li> <li>fibrous plaster board</li> </ul>	<ul style="list-style-type: none"> <li>chipboard</li> <li>fibreboard panels</li> <li>mineral fibreboard</li> <li>paperboard</li> <li>plasterboard, gypsum plaster</li> <li>wall coverings (paper, burlap cloth types)</li> <li>wood, standard plywood strawboard</li> </ul>
insulation	<ul style="list-style-type: none"> <li>foam or closed cell types</li> </ul>	<ul style="list-style-type: none"> <li>reflective insulation</li> </ul>	<ul style="list-style-type: none"> <li>bat or blanket types</li> </ul>	<ul style="list-style-type: none"> <li>open cell fibre types</li> </ul>
windows	<ul style="list-style-type: none"> <li>aluminium frame with stainless steel or brass rollers</li> </ul>	<ul style="list-style-type: none"> <li>epoxy sealed timber waterproof glues with stainless steel or brass fittings</li> <li>galvanised or painted steel</li> </ul>		<ul style="list-style-type: none"> <li>timber with PVA glues mild steel fittings</li> </ul>
nails, bolts, hinges and fittings	<ul style="list-style-type: none"> <li>brass, nylon or stainless steel</li> <li>removable pin hinges</li> </ul>	<ul style="list-style-type: none"> <li>galvanised steel</li> <li>aluminium</li> </ul>		<ul style="list-style-type: none"> <li>mild steel</li> </ul>

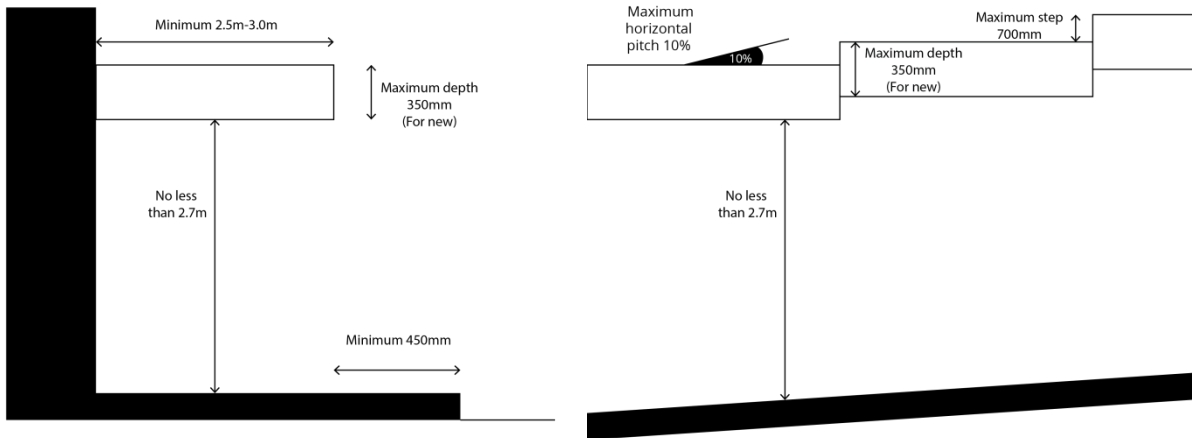


Figure 2: Awning details.



Figure 3: An example of a colonnade.



# Active streets maps



Figure 4: Active streets: East Maitland.

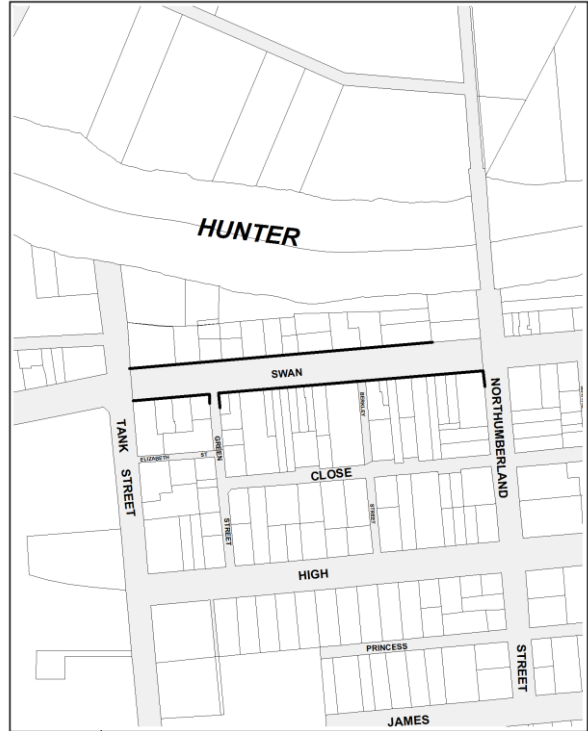


Figure 5: Active streets, Morpeth.



Figure 6: Active street frontages, Tenambit.

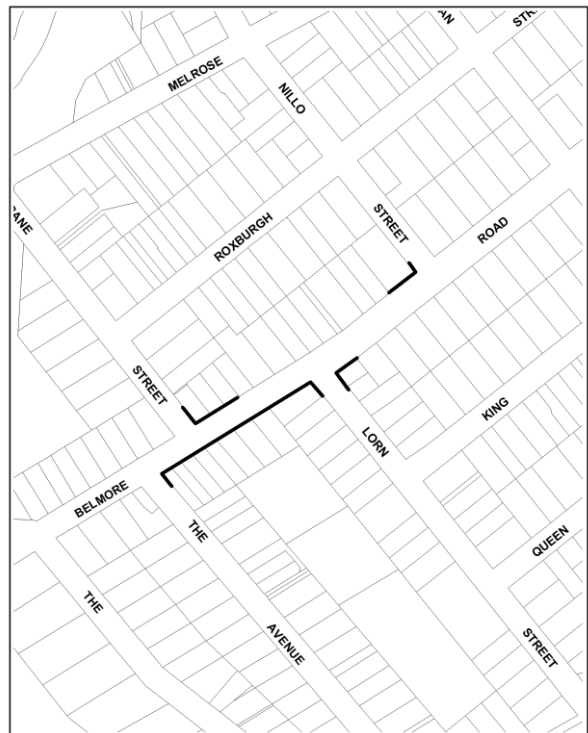


Figure 7: Active street frontages, Lorn.



Figure 8: Active street frontage, Melbourne Street.

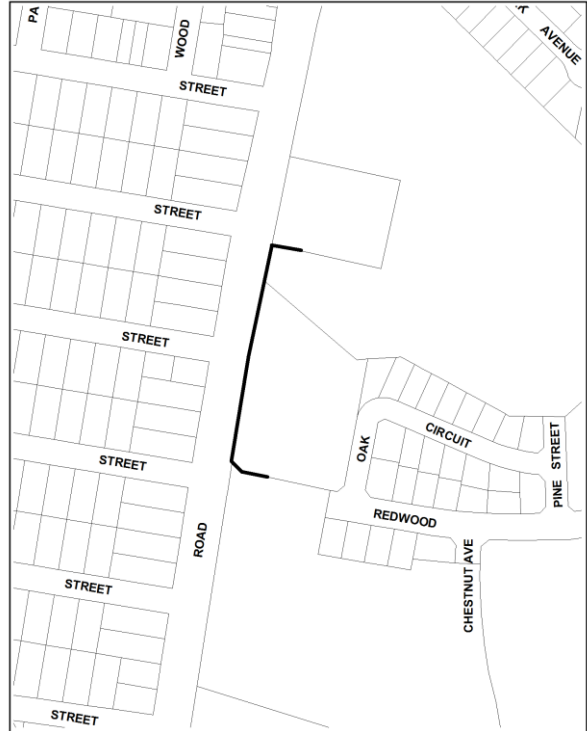


Figure 9: Active street frontages, Gillieston Heights.

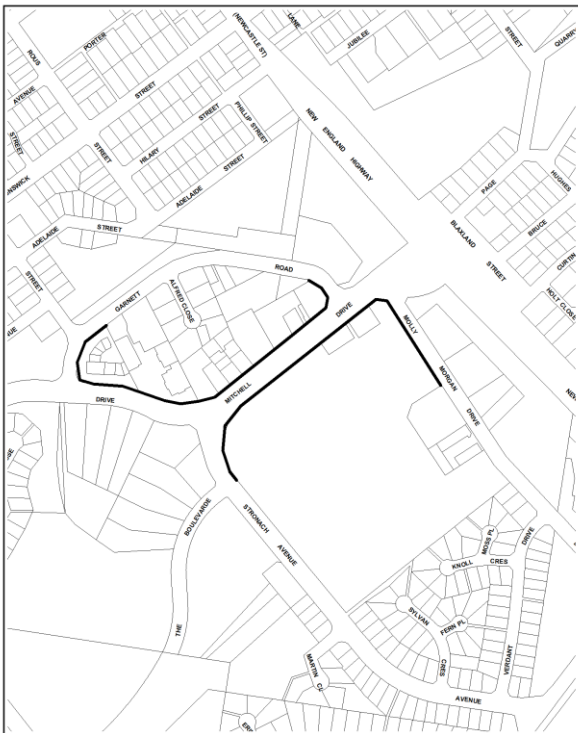


Figure 10: Active street frontage, Green Hills.

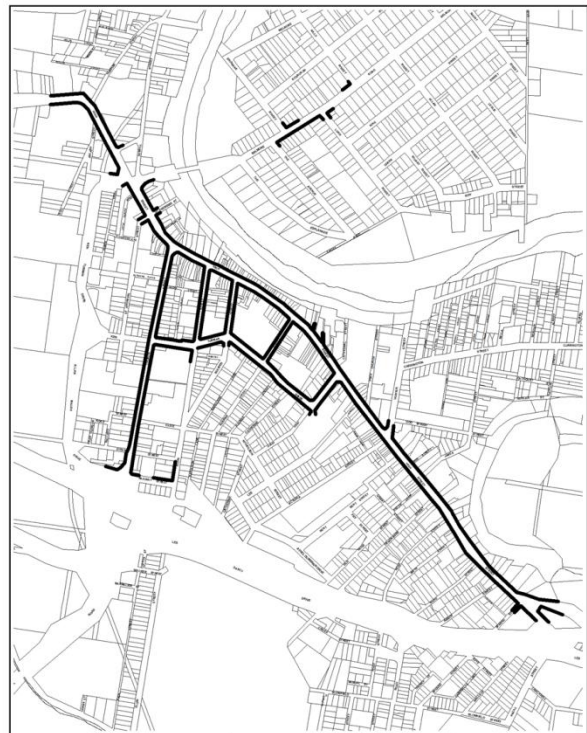


Figure 11: Active street frontages, Central Maitland.

## E.2 - Employment Areas

Not applicable

## E.3 - Heritage Conservation Areas

### Introduction

There are five (5) Heritage Conservation Areas (HCA) with special characteristics in the Maitland local government area. The purpose of these descriptions is to provide an understanding of their history and diversity, to identify those things that are unique about them, and to provide a thematic and historic context within which individual buildings can be considered. This context or background is essential to the preparation and assessment of development applications in Heritage Conservation Areas.

A Heritage Conservation Area is more than a collection of individual heritage items, more than a place which “looks good” because of its design, its neighbourhood amenity, or because of the individual buildings in it. Heritage Conservation Areas have a sense of place, or a spirit of place, which is hard to define, and also hard to replace. This is because their character reflects not just the buildings in them, but also the reasons for the buildings, the changing social and economic conditions over time, and the physical responses to those changes.

Factors in defining the sense of place may be the original subdivision pattern, a consistency in building form or building materials, the density of development or the mix of land uses which reflect a particular period or periods in the history and growth of the area.

The components of a Heritage Conservation Area, therefore, while not necessarily individually listed items, can have a collective significance. Loss of, or unsympathetic alteration to, any one of them can erode the significance of the Heritage Conservation Area as a whole.

The information for each of the five Heritage Conservation Areas provides:

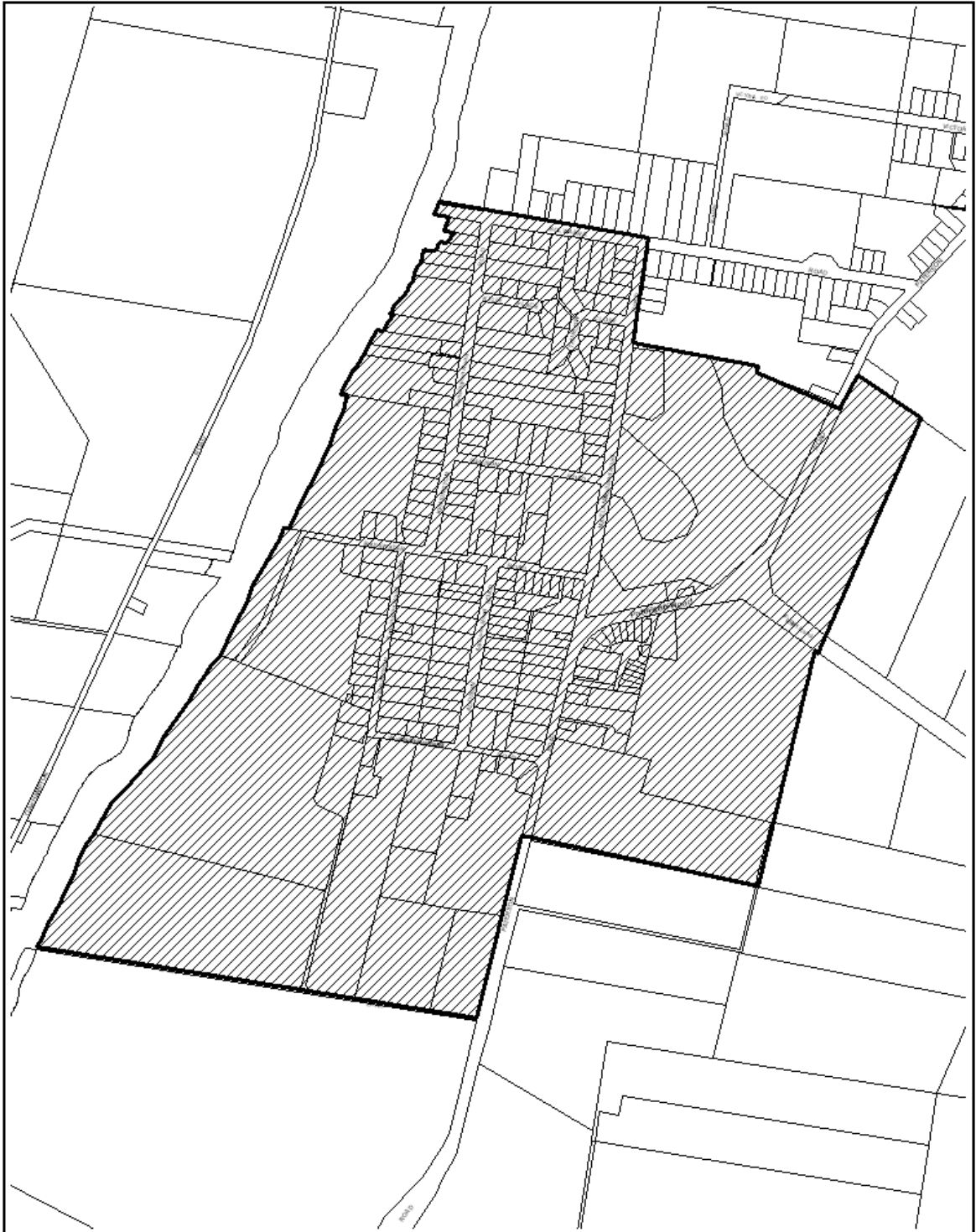
- A Map of the Conservation Area;
- A Character Statement which describes the elements or features that make each area special, or give them their “sense of place”;
- A Statement of Significance; and
- Conservation policies which provide the general framework for development in particular locations, and the broader design guidelines within which particular development proposals will be considered.

When preparing a development application for a site within a Heritage Conservation Area the relevant section should be read, and any relevant matters incorporated into the detailed design process.

Part C: Heritage Conservation in this DCP provides general information and should be considered in the first instance.



# 1. Bolwarra Heritage Conservation Area



**LOCALITY PLAN**



## 1.1 Character Statement

### General

Unlike Lorn and Morpeth the village of Bolwarra has changed markedly since the flood of 1955, because of substantial infill rebuilding. While like Morpeth, the limits of development of Bolwarra were determined by its siting on a hilltop above an anticipated flood line, the infill development which has occurred since 1955 has resulted in a less uniform visual quality of development than is evident in Morpeth and Lorn. The pattern of subdivision, as determined in 1847, remains evident but the new start which the flood provided has meant that the distinctive timber cladding theme of the pre 1950s has been dispensed with. In addition, denser settlement, on smaller lots is evident along Paterson Road, Victoria Street and Canna Street and also in the post 1970s streets within the old Victorian area of the village.

Nevertheless, Bolwarra has well defined edges being well elevated above the flood plain. Like Morpeth it is characterised by predominantly residential development behind one “main commercial street”. Unlike Morpeth this street is the only through street and it does not have former district centre visual status. It is a quaint thoroughfare with a small grouping of neighbourhood shops at its northern entrance.

The urban setting starts and stops abruptly at the northern and southern inclines to the town, each approach being a narrow carriageway through open rural landscape.

In the south the town edge is marked by magnificent trees, including a large Bunyah Pine. In the north, an attractive bend in the road marks the entrance to the town.

### Landscape and Streetscape

In general all buildings are set within a mature, well wooded landscape and there are many small undulations in the landscape on the edges of the town providing an infinite number of views into and out of the town.

In the more established southern sector, buildings are generally well concealed behind deep landscaping and informal fences and street verges. Recent development is much more urban and visually evident, within kerb and guttered streets. The town edges are informally defined. An obelisk is located at the intersection of Westbourne and Addison Roads.

### Buildings

The most obvious buildings are the residential and commercial buildings on the main thoroughfare, which are generally of smaller scale and sophistication than those off the main road, built between the late 19th century and 1950.

There are few particular reference landmark buildings other than for the vast residences (and former Mill) which determine the intimate scale and visual quality of

the secondary streets. This quality is not mirrored in recent residential development. The southern Bunya Pine, main thoroughfare plantings and northern barn have significant streetscape scale and presence.

## 1.2 Statement of Significance

The historic significance of Bolwarra can be traced to the surviving buildings and gardens of the late nineteenth century which record the original subdivision of “gentleman’s houses”. These qualities give the area historic significance for the locality. The same remnant plantings and surviving estate development are of aesthetic significance. Many of the later but undistinguished houses are set in attractive gardens complementing the character of the earlier development.

## 1.3 Conservation Policies

What to Keep:

- Well defined edges of the Conservation Area due to floodplain;
- Predominating single detached residential character;
- Neighbourhood character of shopping precinct;
- Existing form of road approaches to the town;
- Existing density of development.
- Landmark trees, including the large Bunyah Pine at the town’s entrance.
- Buildings and outbuildings associated with agricultural landuse.

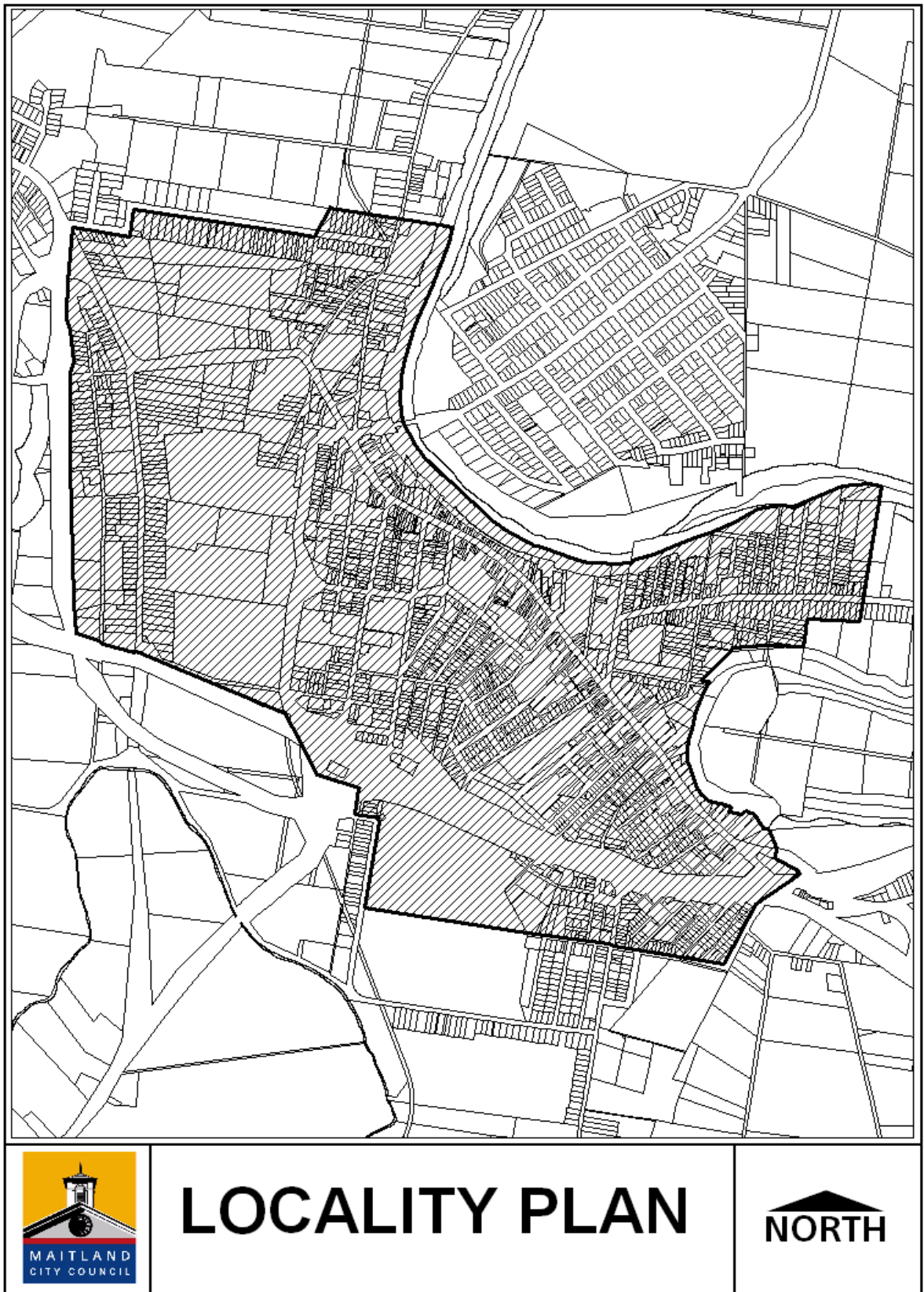
What to Encourage:

- Single detached residential dwellings;
- Consistent scale and form of residential development, predominately single storey.

What to Avoid:

- Medium density development and detached dual occupancy – which are inappropriate because of their scale, design, size of allotment, etc;
- Re-subdivision of larger allotments to allow new dwellings in rear or front yards;
- Large garages and carports on the street frontage, and details on them which mimic those on the dwelling.

## 2. Central Maitland Heritage Conservation Area





## 1.1 Character Statement

### General

#### Early European Settlement

The first European settlement at Maitland was for convict cedar cutters who built thatched huts in the brush. The now open plain at Maitland was covered in dense vegetation – giant red cedars, fig trees, myrtle and softwood brush, with tall gums and swamp oaks along the river.

In 1818 the Governor allowed a number of people to occupy land on the river flats naming the area Wallis Plains. One of these tenants was Mary Hunt, commonly known as Molly Morgan whose subsequent land grant comprised much of the area now known as Central Maitland.

#### Setting

Central Maitland's appearance as a distinct urban centre is a result of its location in an open flood plain highlighting the contrast between rural and urban character. From without, it appears as a settlement of small scale buildings punctuated by towers and spires of the major buildings and complemented by groups of trees.

The transition from rural landscape to urban form, which includes many mature street trees, is particularly distinctive at the Centre's northern and western edges, where the rise of the high ground and the built edge has remained essentially the same for a century. This provides an appreciation of the quality and density of development within the centre.

Particularly interesting views of the area are obtained from surrounding settlements, particularly Bolwarra and East Maitland, and from the southern approach road from Kurri Kurri. While its northern and western edges remain clearly defined, the once distinctive urban form is now somewhat compromised on its southern and south-eastern edges.

The current location of the New England Highway helps to accentuate the rural setting of the City Centre. However, it also creates difficulties in terms of capacity to interpret the southern edges of early development of the town; important components of that phase now sit isolated on the southern side of the highway.

Central Maitland itself is relatively flat and views within the town are confined to the immediate street scene; but near the edge, the rural surrounds and the settlements beyond are prominent, together with hills in the background. This rural setting is an important characteristic of Central Maitland.

### Layout

Central Maitland has a random layout creating a compact, intimate character. Its main arteries are relatively narrow and have traditionally been bordered by impressive, commercial, religious and cultural buildings. The irregular pattern of streets branching off High Street following original tracks and land grants vary in width and character.

The road pattern of residential areas, small scale buildings together with a smattering of rural uses, combine to form areas of unique character and special seclusion.

The Hunter River forms the northern boundary of the City Centre, reflected in the meandering nature of High Street, however the City's built environment does not directly address the River.

Changing attitudes and changing fortunes of Maitland City Centre between the 1950s and the 1990s brought structural change to the City Centre streetscape in a number of instances, altering its homogeneous 19th century scale and form within certain street blocks.

### **Landscape and Streetscape**

High Street is characterised by a remarkable collection of early buildings which reflect the growth of the town as a centre of commerce in the Hunter Valley. Banks, shops and offices, together with churches and houses, date from every period of development and exhibit a variety of architectural styles.

High Street is the spine from which the majority of streets branch off at an acute angle. The original bullock track became fixed as the line of the main street enclosed by buildings of two - three storeys, and punctuated along its length by landmark or "reference" buildings.

Throughout its development, the two storey building has dominated the streetscape with only a few instances of one or three storey buildings occurring.

Maitland's prominence as a trading centre meant that development and redevelopment was always taking place and, in many areas, the present buildings might be the third or fourth buildings on the site. This process of growth and redevelopment has caused some unusual groups of buildings - each building being different from one another in style and period - occurring in various parts of the town: for example, Bourke Street, in the heart of the residential area, contains buildings dating from the 1850s, 1880s, 1890s and twentieth century.

The earliest buildings for which dates are known are residential buildings and they have survived largely because they are on the edge of town, away from the business centre and, also, because they are of masonry construction and have withstood the floods.

Within the town are several buildings such as slab huts, which might date from this early period. Cottages and houses from the 1850s to 1910 occur in sufficient numbers for a recognisable sequence of styles to be identified, including fashions peculiar to Maitland.<sup>1</sup>

Because of its length, and the advent of the mall over a portion of that length, the character of High Street now changes somewhat from east to west.

Regent Street and Church Street in the west consist of major residences and private landscapes, and major cultural buildings and public landscapes.

Each of the residential areas in Central Maitland has its own special character, however they do share some common features. These include an irregular street pattern, predominance of old buildings, many vacant allotments, a scattering of rural uses and few trees.



*“High Street is characterised by a remarkable collection of early buildings which reflect the growth of the town as a centre of commerce in the Hunter Valley.”*

Central Maitland - A Study of its Historic Buildings and Townscape, Bergsteiner McInnes and Rigby Ltd

## Buildings

The character of Maitland’s architecture is very strong and is comprised of two distinct building types. High Street is typified by those buildings having parapets which conceal the roof. Areas away from High Street are typified by buildings having a visible hipped or gable roof.

Central Maitland has retained most of its landmark public and private buildings which continue to dominate the skyline. The majority of buildings in High Street were built before World War 1, and display recognisable styles characteristic of the locality including examples from each period of Maitland’s growth.

Individually, many of these buildings have special architectural and historical significance because of Maitland’s 19th century commercial significance.

Together, they represent both the history of the development of High Street and a catalogue of late 19th century facades. Importantly, from a streetscape viewpoint, the smaller buildings complement the larger buildings in both scale and design.

The earliest commercial buildings remaining appear to date from the 1850s - 1860s. It is possible that the rear timber portions on the buildings on the northern side of High Street backing on to the Hunter River might date from this time, although the facades are much later.

The central residential area contains a mix of styles, shapes and sizes of structures. The buildings dispersed along Ken Tubman Drive remain as the earliest evidence of development in the town centre.

Most residential buildings are detached with pairs and terraces being unusual. The two storey single fronted house with full height verandah built in brick or timber is a particularly special feature of Maitland.

The majority of the cottages and houses were commissioned by their first occupants, many of whom were businessmen or traders in the High Street.

The existence of several architects in the town suggests that a considerable number of these buildings were designed by architects, particularly those built after 1870.

The evolution of the built environment in Central Maitland can be summarised as follows:

Pre 1843	The majority of buildings were slab huts with shingle roofs. The overall road pattern was established.
1843 - 1860	Church Street, Bulwer, Bourke and Catherine Streets began to be settled. The railway was commenced (1856) and iron introduced as a building material.
1860 - 1879	Maitland remains as the centre of the agricultural community. Horseshoe Bend is subdivided from agricultural to residential land. Street lighting introduced.
1880 - 1893	Much redevelopment and building in High Street. New shop fronts and wide verandah/colonnades added to shops. Cast iron decoration and corrugated iron becomes popular. Town Hall built (1889). The old courthouse is demolished and a new one built (1893). Kerbs are formed and sealed with stone gutters. Fine banks built. Many major buildings of this boom period were designed by architects of state and national stature.
1894 - 1913	The 1890's depression followed by further building boom with most vacant land being taken up in the area. Electricity is introduced
1914 - 1945	Many shops in High Street rebuilt. Verandahs began to be removed from shops. Some redevelopment and new brick bungalows particularly in Horseshoe Bend.



Post 1945 Major floods in 1949 and 1955 drastically reduce the resident population and the number of houses. New 'wave' of commercial redevelopment begins.

## 1.2 Statement of Significance

Central Maitland has historic significance of exceptional value recording an early settlement of the Hunter Valley which grew to be the major centre in the region – larger than Newcastle. It also became one of the largest settlements in NSW during the middle of the nineteenth century. Its historic role is reflected in the excellent examples of Commercial, Civic and Ecclesiastical buildings and in the rarer and more modest surviving examples of early housing.

The Heritage Conservation Area's aesthetic significance is derived from the intactness of its streetscapes, its landmark buildings and strong edge definition of river and flood plain. Regent Street contains an exceptional collection of mansions and large residences of the late Victorian and Federation periods.

The area is of social significance for its continuing roles as a regional centre for administration, cultural activities and several religious denominations.



*Central Maitland is noted for its distinct edges between rural floodplains and its buildings*



*Landmarks such as St Mary's spire dominate the skyline of Central Maitland*

## 1.3 Conservation Policies

### High Street

What to Keep:

- Large commercial and administrative buildings which explain the historical importance and affluence of Maitland's commercial centre in the 19<sup>th</sup> Century;
- Retention of the original and early details of all important buildings;
- Views to important or reference buildings, spires and the like, and the imposition of height limits to achieve this in close proximity to the buildings;
- Generally, a maximum height of three storeys in High Street and surrounding commercial streets;
- Views to surrounding rural areas, where possible and appropriate;

- The open landscape around Central Maitland Railway Station;
- Shop fronts which are original to the building or which make an important historical or architectural contribution to building and the street.
- Original signage;
- The original character and status of streets, side-streets and laneways as much as is practicable;
- Original fabric of buildings of significance.

#### What to Encourage:

- Infill development that is sympathetic to surrounding development in terms of height, scale and form;
- Re-instatement of original/appropriate verandahs, in accordance with the guidelines contained in this DCP;
- Where new verandah posts are proposed for commercial buildings they should reinstate original arrangements. Where no evidence of original verandahs can be found, traditional construction methods appropriate to the building should be used;
- Uses appropriate to the original design or function of buildings where possible;
- Where the original shopfront has been removed and replaced with an unsympathetic alteration, the reinstatement of earlier styles of shopfront in keeping with the character of the building;
- Retention of the sense of enclosure of High Street by ensuring that new development maintains building scale and height (ie. two storeys where two storey already exists), appropriate parapet height and design, and reinforcement of established building lines;
- Generally a maximum height limit of three storeys unless inappropriate having regard to surrounding development or the need to preserve views.

#### What to Avoid:

- Facades with strongly horizontal character, which do not reflect the rhythm of fenestration and vertical elements in original buildings;
- Cantilevered or suspended awnings on commercial and light industrial buildings;
- Changes of use/function which are inappropriate to the original use/purpose of the buildings, because they require major alterations to original fabric.
- Mimicking detail of heritage items/surrounding buildings, or application of inappropriate detail.
- Large areas of bitumen surfaced car parking areas
- Dominant use of unsympathetic corporate colours on building facades and signage.
- Modern aluminium shopfronts which are not consistent with guidelines contained in this DCP.
- Verandah posts inserted directly underneath cantilevered awnings will generally not be considered appropriate.

#### **Residential Areas**

**What to Keep:**

- Historical pattern of development, lot frontages, depths and sizes, and setbacks to streets;
- Defined edges, to rural/floodplain areas and to commercial precincts;
- Significant vegetation, particularly where it is part of original gardens;
- The original character and status of streets, side streets of laneways in particular to keep residential streets for residential purposes;
- Retain and enhance the original scale and form of existing buildings;
- Front garden areas with minimal hard surface treatment.

**What to Encourage:**

- Alterations and additions to dwellings that do not necessitate changes to roof form, or are at the rear of the dwelling and not visible from the street;
- Re-instatement of appropriate/original verandahs in accordance with the guidelines in this DCP.

**What to Avoid:**

- Garages and carports becoming a prominent part of the streetscape;
- Intrusion into original fabric of buildings of significance;
- Second storey additions which are visually prominent from the street frontage or other public viewing places;
- Raising of dwellings above flood levels where there would be a significant impact on the streetscape.

**Regent Street****What to Keep:**

- Garden suburb character of substantial, single dwellings with surrounding gardens;
- Well defined edges to floodplain areas, and semi-rural nature of uses in large surrounding allotments.

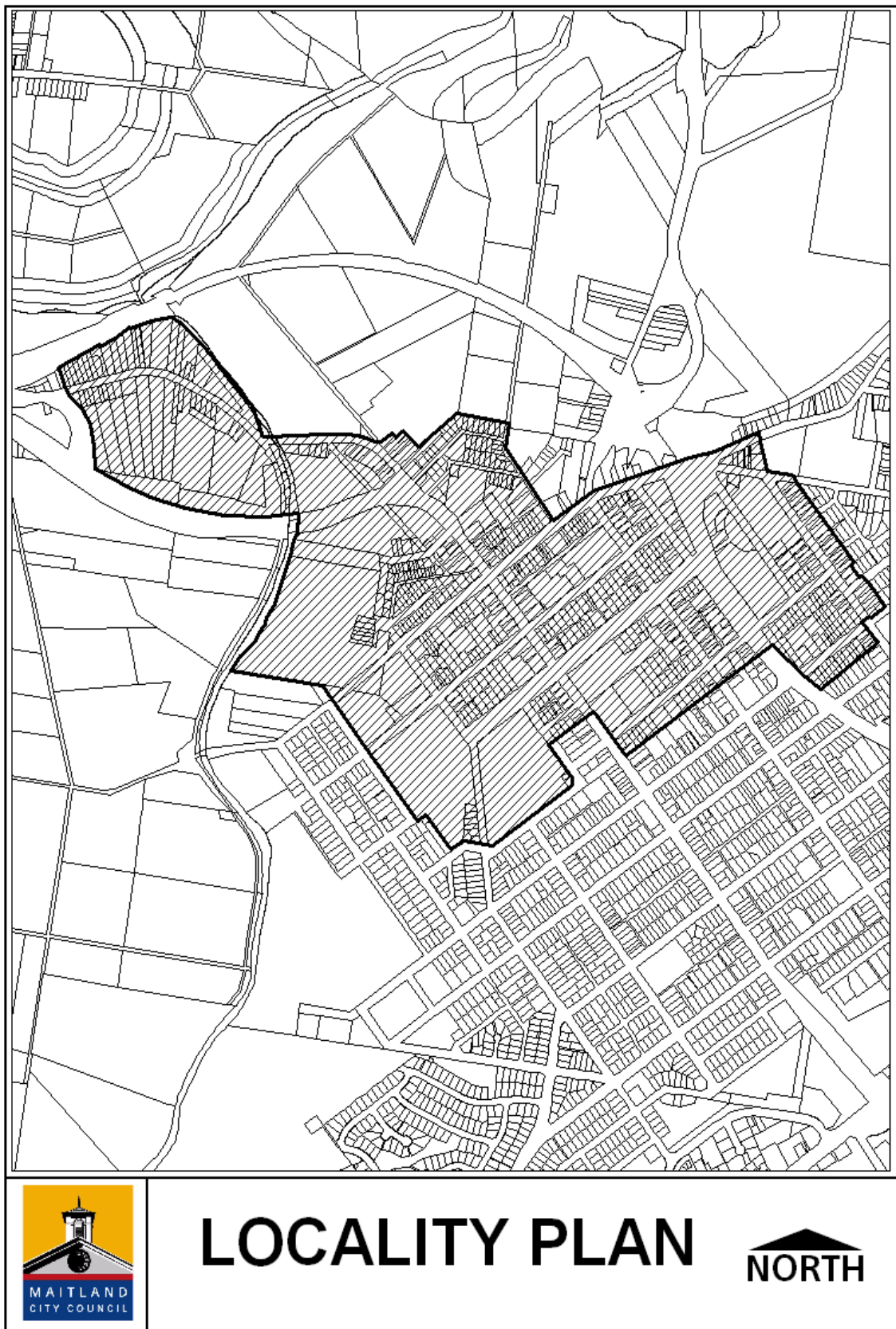
**What to Encourage:**

- Generally single residences, on allotments of similar size to surrounding lots;
- Alterations and additions to dwellings that do not necessitate changes to roof form, or are at the rear of the dwelling and not visible from the street.
- Retention of the dominant presence of landmark buildings.
- Retain and enhance the scale, form and detail of existing buildings.

**What to Avoid:**

- Re-subdivision of allotments, battle-axe lots and the like;
- Dual-occupancy developments unless able to be accommodated within existing building structure and with minimum disturbance to garden areas for parking and driveways;
- Garages and carports becoming a prominent part of the streetscape;
- Second storey additions which are visually prominent from the street frontage or other public viewing places.

### 3. East Maitland Heritage Conservation Area





## 1.1 Character Statement

### General

East Maitland is significant as a unique township because of its origins primarily as an administrative centre. Although it has experienced a degree of change to its buildings and streetscapes, there is still abundant evidence of its origins based primarily on government functions, with links to the convict period.

The area's aesthetic significance and visual character is a direct product of the interrelationship between its unique collection of residential, commercial, and government/institutional buildings, particularly dating from the mid 19th century.

The visual character of the area is determined principally by the William Street axial linkage between the predominant hillside location of the Court House and Stockade Hill to the north and Cooks Square Heritage Park, to the south. The adjacent King and Banks Streets have almost equal historical/visual significance. King, George and High Streets tie the area now north of the railway line, with the lands around the route of the highway.



*East Maitland Courthouse*

In and around the Banks to King Street precinct, adjacent to the rail corridor, the early 19th century vintage of the town is evident, with remaining residential development being of small scale. The scale and form of buildings is similar in the western section, with more recent, as well as grander public buildings, occupying higher ground and spreading out from this area. Melbourne Street retains much of its early 19th

century commercial precinct character.

The visual character of East Maitland is a direct product of its collection of residential, commercial and government buildings, particularly dating from the mid 19<sup>th</sup> Century.

*Maitland Gaol, East Maitland*



## Landscape and Streetscape

In 1829 Sir Thomas Mitchell centred the regular grid pattern of streets on the principal axis of William Street and the visual impact of this concept remains the defining characteristic of the landscape. To this day, William Street retains its central avenue of Moreton Bay Figs linking the East Maitland Courthouse on the northern ridge to Cooks Square Heritage Park on the southern ridge. The impact of the avenue as originally conceived, can still easily be appreciated.

The other defining characteristic of the East Maitland Heritage Conservation Area is the railway corridor. The corridor breaks the William Street vista but the mid-late Victorian buildings associated with the advent of the railway, contribute to the area's individual character.



*East Maitland Railway Corridor and former East Maitland Post Office*

The landscape setting of the Courthouse (and adjacent Goal), with William Street and the adjoining Cooks Square Heritage Park ridgeline is a unique example of town planning from the early 19th century in New South Wales. The maturity of the trees, particularly between Lawes and Williams Streets and around the Courthouse provides an attractive framework for the Government buildings and emphasises the original formal street layout.

At the northern and southern edges of the Heritage Conservation Area interesting views are available southwards, while the area between the highway and railway line is relatively flat.

The character of the Heritage Conservation Area changes at its western extremity where development is less formal, on a more intimate scale and is more associated with the eastern edges of development of Central Maitland than with East Maitland.

The western edges of the Heritage Conservation Area is totally low-lying land, unlike the land flanking William Street.

Other than in and around William and Banks Streets, street plantings and formalised footpaths are uncommon. The formalised footpaths of the streets adjacent to the Gaol and Courthouse tie these streets to William and Banks in early significance (they include High Street, which currently lies beyond the Conservation Area).

### **Buildings**

There is a mix of period, type and scale of dwellings with the mid nineteenth century masonry dwellings of one and two storeys strongly represented in and around Banks and William Streets. Smaller timber dwellings are more common on the western and north-western edges. More substantial Californian Bungalow (and more recent) dwellings are associated with the higher ground adjacent to the highway and in High Street.



*Banks Street defined the eastern edge of early commercial development in East Maitland*

There are also intrusive light industrial developments on the western edge of the Conservation Area and in King Street. These buildings, including supermarkets and car repair and sales buildings are of inconsistent scale and design.



The character of East Maitland is determined by the contribution of streetscape elements, (such as the parks at the terminations of its major vistas and the street widths and street plantings of William and Banks Streets) and the landform, as much as it is by its wealth of 19<sup>th</sup> and early 20<sup>th</sup> Century quality buildings.

*The character of East Maitland is determined by its parks, vistas, landform and wealth of 19<sup>th</sup> and early 20<sup>th</sup> Century quality buildings.*



In addition to identified heritage items there are many other buildings and streetscape elements which contribute to the character of East Maitland. The character of William Street is defined by its central avenue of trees, as well as the domestic scale of its early buildings, while Banks Street defined the eastern edge of early commercial development.

There are also significant street character “Reference” buildings in High Street which have visual importance in describing the history of early development of East Maitland (e.g. the 19th century buildings associated with the former Maitland Boys’ High School), which is an integral component of the Heritage Conservation Area.

## 1.2 Statement of Significance

East Maitland’s historic significance is in its surviving record of the urban growth of Maitland. It is a relatively rare example of a town with origins based primarily on government functions, with links to the convict period and early immigration (Caroline Chisholm House).

Its government functions, continued in the ongoing use of the Gaol (over almost 150 years), Courthouse and Lands Office and in the preservation of the former police buildings and Post Office, contribute to both historic and social significance.

The Heritage Conservation Area’s aesthetic significance is derived from its collection of residential, government, institutional and commercial buildings of all its periods of historic growth and their visual inter-relationship, in particular the strong axial composition based on the prominent hillside location of the Court House and Stockade Hill.



*William Streets’ central avenue of fig trees linking the East Maitland Courthouse with Cooks Square Heritage Park. The Avenue was central to the 1829 town plan set out by Sir Thomas Mitchell.*



### 1.3 Conservation Policies

#### What to Keep:

- Retain significance of the area as a relatively rare example of a town based on government/administrative functions;
- Retain formal street plantings and footpaths in and around William and Banks streets;
- Retain the landscape setting of the major administrative buildings such as the Courthouse and formal nature of original street layout;
- Retain street widths of original townships and terminations of major vistas at parks;
- Retain scale of original residential development within the limits of original township;
- Retain original subdivision pattern, lot sizes and building setbacks.
- Original layout of sandstone kerb and guttering.

#### What to Encourage:

- Generally low density, residential development retaining existing subdivision layout;
- High quality of new and infill commercial design through better guidelines and more stringent controls.

#### What to Avoid:

- Large scale medium density development on large lots or at the rear of existing dwellings on larger lots;
- Re-subdivision of large residential lots;
- Inadequately controlled expansion of “Support Business” and “Special Business” uses in the Heritage Conservation Area.

## 4. Lorn Heritage Conservation Area



## 1.1 Character Statement

### General

The visual character of Lorn presents an image of a well-cared-for turn-of-the-century, residential settlement in which the different periods of architecture are integrated by the consistency of the introduced landscape. The immediate visual impression is of an essentially residential precinct of single and double storey Victorian houses and early 20th century character, with clearly-defined edges. The village appears as “an urban island in the flood plain”, contained by a series of levee banks. The uniquely different feature of Lorn, as compared with its neighbours, is the high quality of design and execution of its Federation and Californian Bungalow periods housing stock. Unlike Morpeth, Lorn is arranged on an irregular grid and in addition, because of the high levee banks, does not afford views from the village to the river and countryside beyond. Lorn is significant for its continuity of use as a garden suburb of Maitland, and is the best example of the garden suburb ideal in the Hunter Region.

### Landscape and Streetscape

Lorn’s local landscape is thus much more typical of an urban, than of a semi-rural setting and the quality of the buildings provides an insight into the turn-of-the-century affluence of its residents. For this reason, there is an evident consistency of landscape between public and private spaces. Mature, formal street planting is evident throughout the area with good private landscaping as well. Species include native pines, palms, jacarandas and eucalypts. Special townscape features include picket fences, stone and brick walls, iron railings and hedges. Generally periods and styles are mixed throughout the area. There are, however, few modern or out of character intrusions. The streets are generally wide. Some are kerbed and guttered but most have narrow pavements with gravel shoulders. Most streets also have concrete footpaths with grass verges.

Belmore Road is characterised by consistent quality fences, consistent building lines and reduced and detailed single storey masonry dwellings immediately across before Belmore Bridge, but with a lack of notable street tree plantings until after Warrane Street intersection. After Nillo Street heading North East, Belmore Road is characterised by mature English trees and Jacarandas. The street plantings combined with quality kerb and guttering, wide grass verges and the subtle bends in the road contribute to its visual consistency. The trees in front of Nillo School are listed on Council’s Significant Tree Register.

With the exception of Roxburgh Street with its magnificent street trees and Queen Street south of Allen Street the majority of the secondary streets have undistinguished landscapes/streetscapes. However the informal roll-over kerbing provides a distinctive character, as do the generally wide grass verges and the consistent wide verandahs in Allen Street.

## Buildings

In Belmore Road, the older, grander buildings tend to occur north east of Nillo Street (and this tends to be borne out by the relative proportion of identified heritage items). These buildings occupy larger lots than are evident elsewhere.

The opposite progression is true of Melrose Street moving North East from Brisbane Street where initially late 19th century weatherboards are evident up to Nillo Street, but thereafter the street is characterised by late Federation/Californian Bungalow dwellings on mid-sized lots.

Off Belmore Road, dwellings are generally of Federation or Californian Bungalow style and of quality construction and detail, of consistent setbacks and highly detailed. This is especially notable in Roxburgh Street which is characterised by chimneys and tiled roofs, bay windows, fine fences and interesting variations in scale of building elements. There are quality dwellings throughout Allan Street and Queen Street, but lower quality more recent (1940s - 1950s plus) buildings on the eastern and Northwestern edges of the township.

Conservation management within Heritage Conservation Areas depends on an understanding of the determining elements of the area's character. In Lorn's case, there are more buildings and streetscape elements which determine its character, than is indicated by the number of heritage items listed in the Maitland LEP 2011.

In Belmore Road, the character of the streetscape immediately east of Belmore Bridge has a great deal to do with the quality of stucco and timber detailing evident on the California Bungalow dwelling between the Bridge and Brisbane Street. The detail evident on the shop further along, on the eastern side of Belmore Road, clearly reflects an awareness of the quality of this "reference" detail.



*Lorn is distinctive for its high quality of residential buildings.*



## 1.2 Statement of Significance

The area is of historical significance as probably the best example in the region of the garden suburb ideal. Lorn has an excellent collection of residential architecture dating from the late Victorian period, the Federation period and the Inter-Wars period. It records the historic expansion of Maitland's residential development onto the flats across the river. The social significance of the suburb is preserved in an urban form and building content still functioning as a garden suburb of greater Maitland and deriving meaning from its continuity of usage. The aesthetic significance of Lorn is derived from the many excellent examples of residential architecture styles of the late Victorian period, Federation period and the Inter-wars period, supported by many other later impressive but contributory buildings of compatible scale and form; wide streets and civic tree planting; and well established gardens. The urban edge is well defined by river levees and open agricultural land contributing to its identity as a cohesive townscape.

## 1.3 Conservation Policies

### What to Keep:

- Contain spread of commercial uses to existing extent.
- Narrow carriageways lined with informal grass verges and plantings or gravel shoulders.
- Distinct built edge boundary with rural surrounds.
- Lorn's predominantly single storey street frontage. Roof conversions should be located to the rear of the existing house.
- Contributory street tree plantings.

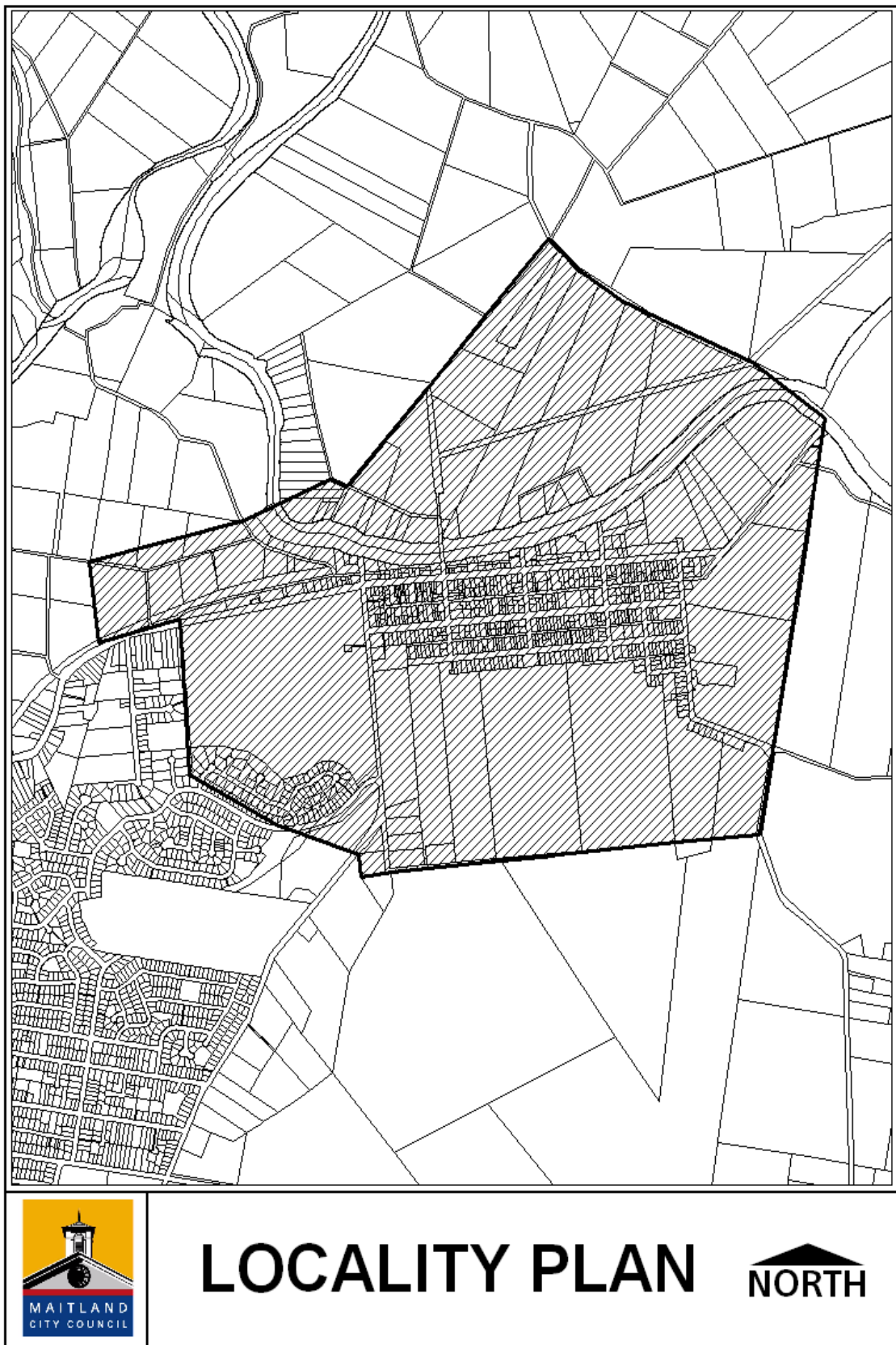
### What to Encourage:

- Strictly limited building heights and setbacks, especially along Belmore Road.
- Fencing designs and materials suited to the period of the dwelling;
- Reference to the 1985 Lorn Conservation Planning Study which provides a list of recommended exotic and Australian species for private and public gardens
- Where required, kerbs constructed using a roll-over profile rather than the upright profile.
- Maintain the predominance of single residences per allotment;
- Maintain existing subdivisional character in any future subdivision of land in Lorn.
- Infill development which does not modify the historic character of Lorn.
- Roof form and pitches which emulate those of the existing house in the case of additions, and in new development borrow the main characteristics without necessarily creating a replica of particular styles in the street.
- Attic space can be accommodated in the existing roof space where there is no substantial change to the existing roof form and where new openings are not located on the street elevation.
- Location of new garages behind the rear building line as detached structures.
- Reinforcement of street tree plantings.

#### What to Avoid:

- Removal of any healthy plantings
- Use of high saturation/intense colours
- Loss or compromise of all heritage items and contributory reference buildings (as previously described) and landscape elements.
- Upright kerb and guttering.
- Use of modern profile steel sheeting, concrete tiles and high glazed or variegated coloured terracotta tiles.
- Use of textured red, white and modern patterned bricks, and concrete blockwork (painted or unpainted)
- Complete cladding of walls with plain panels such as fibro.

## 5. Morpeth Heritage Conservation Area



## 1.1 Character Statement

### General

#### History of Development

The character of Morpeth derives from its history of development over 150 years as well as its popularity over the past 20 years as a residential area and a place for developing specialty shops for the tourist market.

#### A Distinct Urban Entity in a Rural Landscape

Morpeth has a clearly defined edge and a distinctive form in a rural setting. The town is the same size and shape as indicated in the earliest known plan (1840) with few changes. It is clearly separate from other urban areas, and is also visible as an entity in the landscape from surrounding areas and from several approach roads.

#### Founding and Siting

Morpeth is sited on a ridge of high land alongside the Hunter River, on part of the land granted to EC Close in 1823. The government store ship St Michael was permanently berthed here – at this point travel to Maitland was more convenient by river than by road. The eastern boundary of the common (land is extension to part of McFarlanes Road) is part of the eastern boundary of the original grant.

Beside the town are the houses and grounds of EC Close (Closebourne and Morpeth house) each sited with expansive views to the Hunter River, and later owned by the Anglican Church.

The physical character of the town reflects:

- its very early settlement (1820s) as the major port of the Hunter region;
- its establishment phase occurring before the halfway point of the nineteenth century and paralleling the establishment of railways in NSW;
- rapid growth in the late Victorian, post gold rush period;
- decline after the early decades of the 20<sup>th</sup> century; and
- resurgence in the latter part of the 20<sup>th</sup> Century.

The Morpeth characteristic most immediately obvious is that it has a homogenous appearance related directly to the high proportion of commercial and private buildings surviving from its middle to late 19<sup>th</sup> century establishment and growth phase.

The town remains visually a river town, its immediately distinctive characteristics being:

- its situation on higher ground adjacent to the River with a distinctive timber bridge at its heart and with its major streets laid parallel to the river. Its hilltop location provides distant views to and from the town;
- its clearly defined limits, reflecting both the flood-susceptibility of the surrounding land and the lack of further developable land because of its



- location at the limits of navigability of the River; the town's wide, quality commercial street gives it a distinctive district centre look and status;
- its physical "intimacy" which relates directly to: the relative narrowness of the streets; the relative length of street blocks between side streets, and, the relative comparison of the subdivision pattern. The intimate feel of the streets is heightened by avenues of Brush Box trees. It is heightened by the relative narrowness of the combination of topography, built features and approach roads, which all serve to make the last section of all approaches, slow-paced;
  - the older buildings (pre - 1870) are generally sited close to (or on), street boundaries and it is these buildings which therefore provide the towns street blocks with their individual "reference" scale and form;
  - its residential area being located behind its single main street commercial precinct, the residential area thus generally being forced to turn its back on the river;
  - its formal, regular layout.



*Older buildings in Morpeth are generally sited close to the street*

## **Landscape and Streetscape**

The landscape and streetscape of Morpeth is notable for:

- its range of landscapes and landscape /streetscape elements, including: the fig trees along the approaches from Maitland and Duckenfield and in Morpeth Park; the Brush Box trees in High Street; the palms and pine trees within the grounds of significant buildings and; the hedges and fruit trees in many earlier domestic gardens;
- its uncommon and distinctive pattern of street allotments were different from the government town standards of the time; a skilful adaptation of the standard dimensions for government towns to the topography, following the principles underlying the planning of towns in the colony. A key factor in the plan is the location of the church at the top of the ridge, within clear view of

Closebourne, at the end of High Street and visible from many parts of the town. High Street is close to the top of the ridge, and James Street is at the top of the rise. The allotments between Swan Street and High Street are greater in depth than those between High Street and James Street.

- the distinctive high-quality stone kerbing (denoting the extent of development in the 19<sup>th</sup> century), is distinctive for a small 19th century town, giving lie to its regional significance as a commercial centre.
- its low-intensity, small scale development, with no building exceeding 3 storeys in height. As well as providing for a consistent scale of streetscape within the main shopping/ commercial precinct, this low scale ensures that all public spaces and thoroughfares are sunny and open.
- Its setting on the river, symbolised by the well known landmark of Morpeth Bridge and remaining wharf archaeological remains.



*The history of Morpeth and its aesthetic charm are closely linked to its river setting*

### **More About Morpeth's Layout**

Morpeth has a grid layout of three major streets with lanes between, and five minor cross streets. The dimensions of the major streets, distances between intersections (longer than usual 10 chains), and depth of the allotments, are significantly different from the standard dimensions. It is likely that the concept for the layout evolved from the time of the first sale, in 1834 up to 1840 from which date a plan survives which shows the whole of the town as it is now. If EC Close had relinquished the land to the government rather than retaining the land himself, a very different town

would have resulted, probably more like East Maitland in layout and including more land, as it is likely that the government might have held more auctions.

The main streets are:

- Swan Street (88 ft 5 in); High Street (86ft 6 in); James Street (77ft 10in) and two lanes (33ft) providing rear access between them, and five cross streets (each 66ft).
- There is a predominance of detached dwellings, with a few wide lots remaining and reflecting the large lot size (2 chain wide(120ft/38.22m) of the original pattern).

## **Buildings**

There are a variety of building types and ages which together reflect some of the themes of history in Morpeth. Buildings which house major services within the town - the Post Office, former Courthouse, former Railway Station and CBC Bank, remain as landmarks, complemented by modest houses, churches, and schools.

Morpeth is outstanding among small towns in the Hunter for the number of town uses and facilities housed in buildings of architectural and historic interest.

The pattern and age of houses broadly reflects the development of the town; there are house styles of all types and ages, with pre 1868 buildings, close to the alignment, making a notable contribution and distinguishing Morpeth from other towns in the region.

A variety of buildings in age and style, exist from the 19<sup>th</sup> and 20<sup>th</sup> centuries. Whilst houses built since 1950 are more than half the stock of dwellings, the older houses remain prominent in the townscape in every area of the town. New buildings, through their numbers, are an obvious component of the town's character, but are generally sympathetic in form and scale to the older buildings.

In general, the buildings of Morpeth can be divided according to use and form, as follows:

<b>Community Buildings</b>	Churches, Halls, Clubs, sporting facilities
<b>Public Buildings</b>	Courthouse, Police Station, Post Offices, etc
<b>Commercial Buildings</b>	Hotels, shops
<b>Industrial Buildings</b>	Generally large in scale
<b>Domestic and Backyard uses</b>	Sheds and garages, former stables
<b>Houses</b>	And other domestic buildings

### Community Buildings

Surviving community buildings include the Grandstand c1890 - a fine example of a small scale grandstand and the Morpeth School of Arts.

### Public Buildings

Morpeth has a fine collection of public buildings built to accommodate uses needed in towns and commercial buildings, reflecting its 19th century origins. Buildings from major government uses remain, and together these are good examples of the work of the colonial government architects, and comparable to buildings of the same use built in other prestigious towns.



*Designed by Mortimer Lewis, Junior Morpeth Courthouse is a fine example of the work of Colonial Government design.*

### Commercial Buildings

The commercial area focussed on the western end of Swan Street. Within this area there is considerable diversity in building form and age, including several houses – mostly 20<sup>th</sup> Century, and buildings for commercial or public purposes also including dwellings or other quarters.

Four types of shop are evident in Morpeth:

- the large store or emporium - Campbell's Store, cnr Tank Street, c1850.
- shop with dwelling above (two or three storey), usually brick construction.
- shop with dwelling at side or rear, single storey (examples in timber)
- house with shop as a projecting bay at front.

Many retail and commercial buildings remain from the mid 19th century. With the exception of a couple of vacant shops in High Street, the remainder are in Swan Street, principally in one block, between Tank Street and Northumberland Street. Most of these buildings were built as shops and dwellings, but are now used only as shops.



Of the 19th century hotels, two remain as hotels and a third is a dwelling. Taylor's Bond Store, in Swan Street, at the north-east corner of Northumberland Street, has been converted to terrace houses.



*The group of shops on Swan Street are considered to be the most significant group of pre 1880 retail buildings in the Hunter Region.*

The oldest houses are sited close to the street and close to the ground (due to construction and build-up of earth) - they are simple in form.

The hotels that remain are two storey with post supported verandahs, and have been adapted by various additions and modifications to present needs.

Most of the older shops in Swan Street were built in the period 1850-1880. Many of the buildings were constructed pre 1868 that is, during the period when Morpeth was a major port in the 1850s and 1860s. Together, these shops - particularly Campbell's Store and the three storey shops and dwellings - are the most significant group of retail buildings pre 1880 in the Hunter Region. Individual buildings of the same period exist in other towns, but there are no comparable groups that make such a major contribution to the streetscape.

#### Industrial Buildings and Sheds

There are several large industrial buildings which occupy the land in Swan Street. Throughout the town, there are also many large sheds of various shapes and built for various purposes, including stables and industries.

Like the large industrial buildings, these add to the visual appeal and historic authenticity of Morpeth.

An area of industrial buildings and uses is located alongside the river; a legacy and reminder of past function as a river port, with rail access, of which substantial evidence remains in the formation for the track, retaining walls and tree planting. There are also sheds built for light industrial or rural purposes within the predominantly residential area.

### Residential Buildings

Morpeth contains dwellings from all periods from the 1840s onwards which greatly outnumber all the other building types.

The residential area has a legacy of wide allotments, with detached single-storey houses the most common form of dwelling. There are some semi-detached dwellings (or pairs) mostly from mid 19<sup>th</sup> Century, which are single-storey and sited close to the front boundary. The few two-storey houses are modest in scale. Large historic residences (Kiora, Marlborough) retain their expansive garden setting.

Morpeth did not have any style distinctive from those in other towns in the locality, but the circumstances of the town have kept an outstanding number of pre 1870 buildings unrivalled in the Hunter Region.

The most predominant type is the house with four room core, with variation in verandah, kitchen; bathroom, and other construction from earliest times up to the 1920s.

## **1.2 Statement of Significance**

### Morpeth is of State Significance:

- For its role in the pattern of NSW's cultural history: As the major river port town in the European settlement and development of the Hunter region in the 19<sup>th</sup> Century.
- For demonstrating a high degree of creative or technical achievement in NSW: As a privately founded town whose layout is a skilful adaptation of the standards for government towns to the circumstances of the site, and the requirements of its founder, who lived alongside and whose family continued to own much land in the town and its surrounding area until 1920.
- For its uncommon and endangered aspects of NSW's cultural history: As a town with a large collection of buildings and works from the 19<sup>th</sup> Century, many pre 1868, compared with other similar sized and aged towns; and which provides comprehensive evidence of architectural standards and building techniques, which are now relatively rare in the state.

As a town with extensive archaeological evidence with potential to yield information that will contribute to an understanding of NSW's cultural history; in particular of the river port and associated works and structures currently in an endangered condition; and

As a private town where the founder lived alongside and whose family

continued to have an impact on the town and its development for almost 90 years after its founding.

#### Morpeth is of Regional Significance:

- For its uncommon evidence of the impacts of European settlement on the natural character of the landscape: activities of early settlement (such as tree clearing) where a factor in floods that made major changes to the course of the Hunter River at Morpeth, leaving large off cuts and lagoons.
- For its strong and special association with its local community which has shown its appreciation of Morpeth's history, heritage and character, including its scenic qualities of the relationship between a riverside town and the surrounding rural area.
- For demonstrating the range and variety of dwelling types occurring in towns from 1830s to the present, with intact dwellings, mostly detached and single-storey, from every period of its development.
- As an uncommon example of a town whose road layout and extent has changed little since the mid 19<sup>th</sup> century and has developed and maintained a clear edge and distinctive form in its rural setting.

#### Morpeth is of Local Significance

- As a town that demonstrates its history through tangible evidence in its current built form.
- As a major tourist destination, creating greater public awareness of the heritage significance of the Maitland area generally.

### **1.3 Conservation Policies**

#### **Precincts**

Morpeth has retained its original town plan dating to c1840, comprising of three primary streets running parallel to the river and six primary cross streets. The traditional grid layout has provided easily defined areas of built types and land use within the township itself. These areas have distinct characteristics that contribute as a whole to the character of Morpeth and can generally be described as precincts.

In this regard, Morpeth can be divided into four precincts of unique character:

#### Commercial Precinct

the shopping and business area of Swan Street.

#### Residential Precinct

the areas of the town that are predominantly residential in nature (with some community uses in High Street).

#### Industrial Precinct

the industrial area of eastern Swan Street.

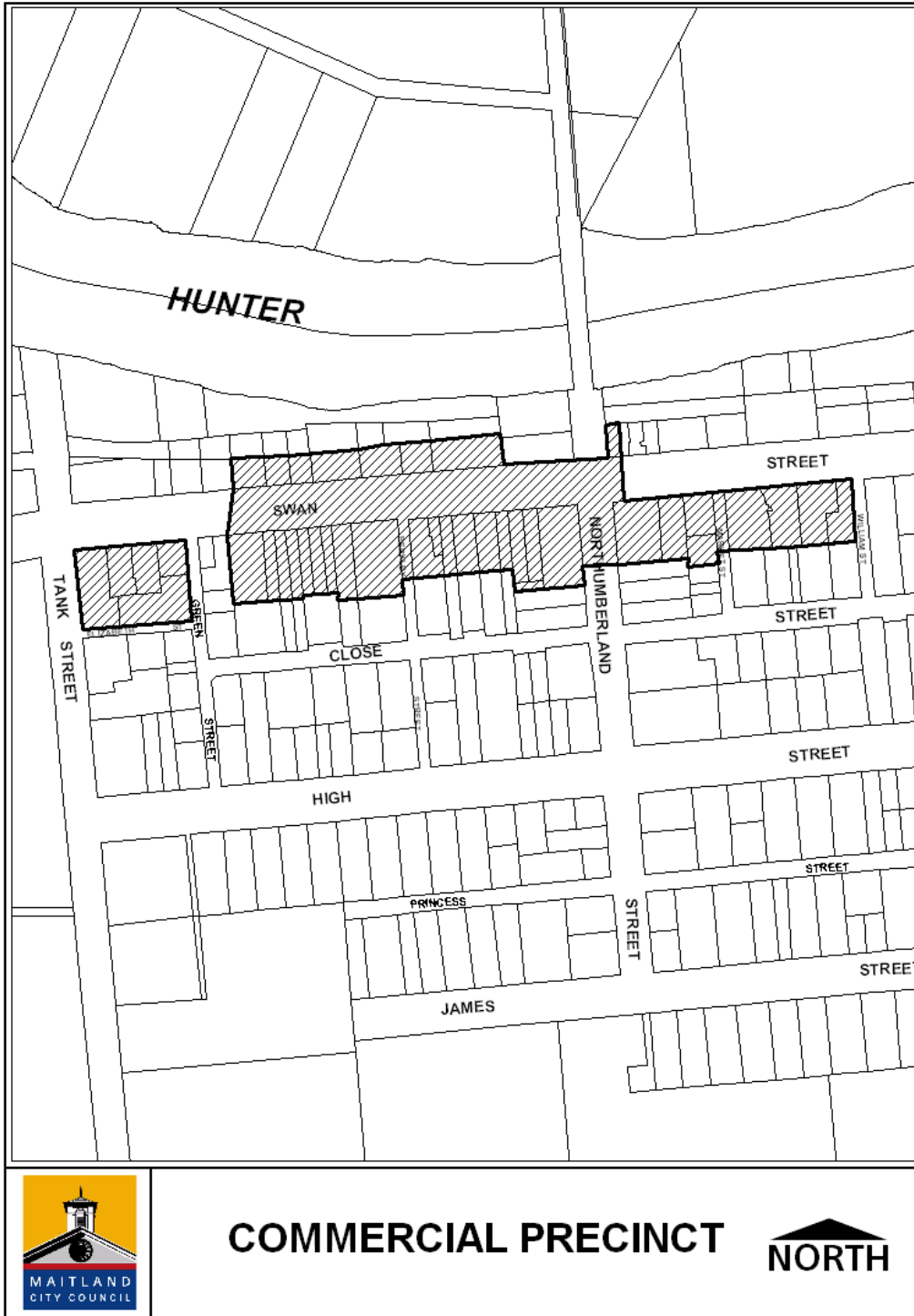
#### Rural Outskirts Precinct

the surrounding rural plains, including the Morpeth Common and the riverside

The nature of land uses and specific characteristics within each precinct further defines the character of the town and its built form. These unique characteristics can inform new development and provide a guide to streetscape form and scale at this local level.

Commercial Precinct

The Commercial Precinct is contained within the western section of Swan Street predominantly between Tank Street and Northumberland Street.





Within this area there is considerable diversity in building form and age, including some housing. However the specific character of this precinct is defined by the established row of shops and dwellings along the southern side of Swan Street of two and three storey (attic style) buildings. Together, these shops - particularly Campbell's Store and the three storey shops and dwellings - are the most significant group of retail buildings pre 1880 in the Hunter Region. Individual buildings of the same period exist in other towns, but there are no comparable groups that make such a major contribution to the streetscape.

The northern side of Swan Street by comparison is characterised by predominantly freestanding single two storey buildings. This northern side of Swan Street due to the placement of freestanding buildings maintains defined view corridors to the Hunter River and the rural plains beyond.

### **Building Design Requirements**

#### Aims:

- To maintain the existing overall form, character and diversity of buildings in Swan Street and to ensure heritage authenticity.
- To encourage small scale, high quality specialty business.
- To allow new development provided it does not adversely impact on the visibility and appreciation of the historical buildings and pattern of development.
- To maintain existing view corridors to and from Swan Street to the river and surrounding area.

#### Requirements:

1. Further expansion of the B2 Local Centre Zone into existing residential zones is not supported.
2. There should be no new awnings or verandahs constructed across the footpath along Swan Street, apart from reconstructing a historic front facade to an existing building to its original form based on documentary evidence. Any major reconstruction will require the services of a conservation architect.
3. Houses and buildings constructed as houses should be retained.
4. New buildings in Swan Street to be separate (not attached) to existing buildings.
5. Development at the rear of existing buildings may be attached to the existing building or built as a pavilion structure.
6. Any new commercial development to provide on-site car parking. Land zoned R1 General Residential fronting Close Street at the rear of Swan Street commercial properties to be retained for service access and parking, and screened accordingly.
7. Traditional building forms should be retained. Buildings with upper levels over parking or service areas are not appropriate where visible from the street or a public place.

8. New buildings should maintain setbacks of existing buildings on site, or be set back on vacant sites to avoid diminishing the visual impact of adjoining or nearby heritage buildings.
9. The maximum height of buildings between Tank and Northumberland Street is to be two storeys. West of Northumberland Street generally one storey, with one and a half storeys or two storey only at the rear of the building.
10. A Statement of Heritage Impact prepared by a suitably qualified heritage architect will be required for any new building proposed within the Commercial precinct.
11. The lower scale contributory single storey buildings on the northern side of Swan Street should generally be retained as single storey.
12. Plantings over 1.5m within identified view corridors are not appropriate.



*Verandahs across footpaths should be constructed only where documentary evidence exists as to their original design.*



*Land fronting Close Street at the rear of Swan Street commercial properties to be retained for service access and parking.*



*Sympathetic building forms and modern, but simple detailing have been used in this commercial development*



*Gaps between buildings to rural surrounds should be maintained.*

## Shopfront Requirements

### Aims:

- To retain shopfronts which contribute to the heritage significance of the building and surrounding area.
- To ensure that new shopfronts complement the significance and character of the existing building and surrounding area.

### Requirements:

1. Original shopfronts should be retained.
2. Where the original shopfront has been removed and replaced by an unsympathetic alteration, the reinstatement of earlier styles of shopfront in harmony with the overall building character is desirable.
3. Timber framed shopfronts will generally be required for any new developments.

## Signage Requirements

### Aim:

- To ensure that signage respects and enhances the amenity of the precinct.

### Requirements:

#### General

1. The scale, type, design, location, materials, colour, style of any sign should be compatible with the design and character of the building and should not intrude on the visual qualities of the streetscape.
2. Above awning signs will generally not be permitted.
3. Business identification signs will be limited to one sign per street elevation.
4. Advertising signage is not permissible within the commercial zone.
5. Internally illuminated or fluorescent signage is not acceptable.
6. Appropriate positions for business identification signs include signwriting on the verandah fascia board and sympathetically sized and shaped signs suspended below the awning.

#### Colour

7. Colours used in signage should be sympathetic to the surrounding area and be related to the colours of the building.
8. The use of entire glazed shopfronts for temporary notices is not considered appropriate, nor is the use of temporary fluorescent sign writing.
9. The use of bright corporate colours and sign designs, which are not related to the architecture or character of the precinct and building are not appropriate.

#### Lettering Styles

10. Traditional styles of lettering can be interpreted for modern buildings such as the use of raised lettering or traditional styles such as Clarendon, Ionic, Tuscan, Modern and Fat. (See Over)

ABCDEFGHIJK  
ABCDEFGHIJKL  
BCDEFGHIJKL  
ABCDEFGHIJKLM  
**BCDEFGH**  
**UVWXYZ**  
BCDEFGHIJK

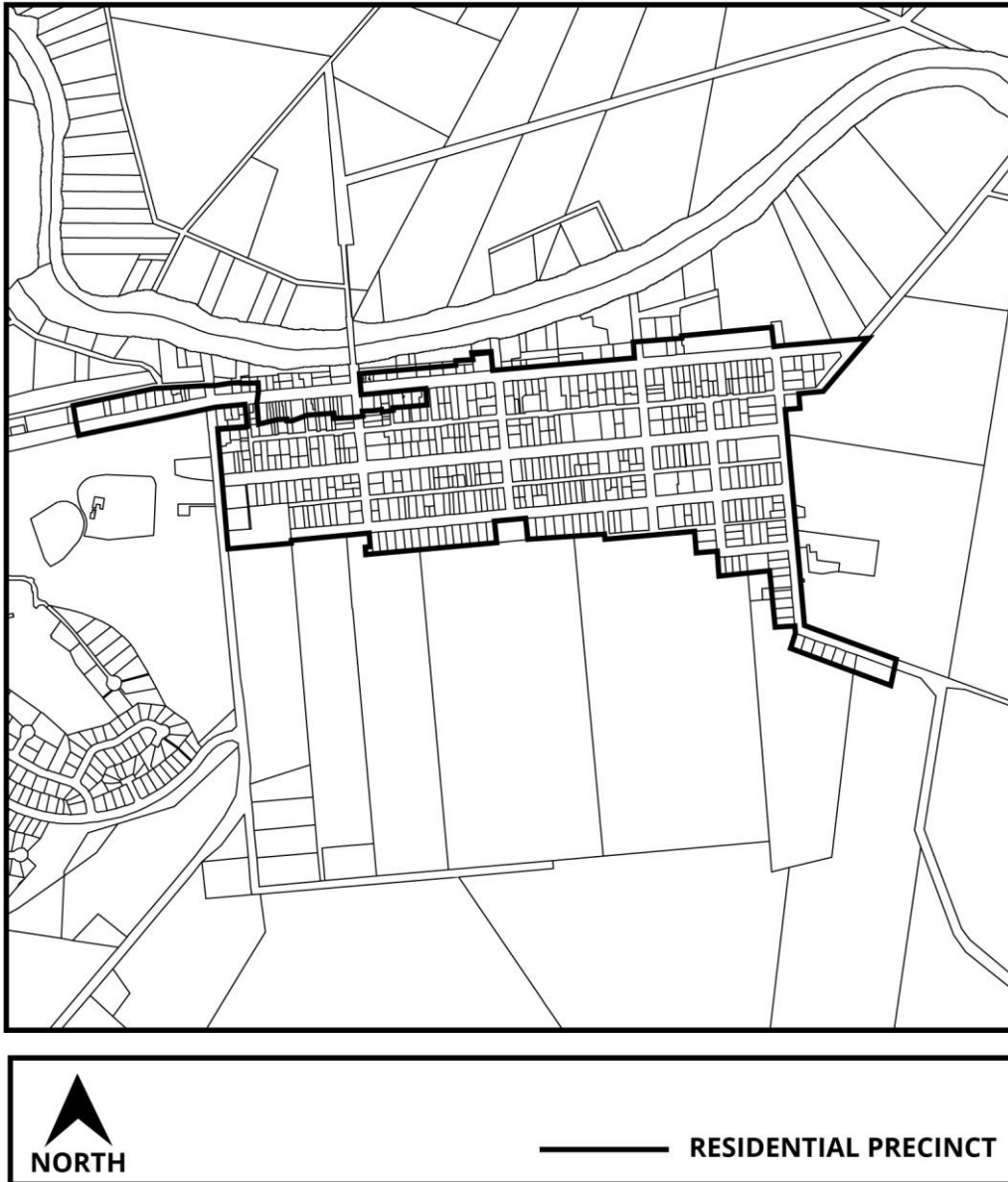
Original Signs

11. Early signage has cultural value and should be retained and conserved.



### Residential Precinct

The Residential Precinct occupies the remaining streets of the township between Tank and Edward Street, the Hunter River and James Street with the exception of the commercial and industrial precincts. This land is zoned for residential purposes and forms the largest precinct within the township of Morpeth.



The specific character of this residential precinct is defined by single storey detached dwellings of various ages. A small number of attached dwellings (less than 5%) and two storey buildings also exist within the residential area, along with large historic residences that retain their expansive garden settings. Residential allotment sizes vary through the township. Those established around Swan Street consist of small allotments compared to the wider frontage allotments created on the edges of the township along James Street.

Some diversity in building style exists in the form of a series of churches and associated community buildings that are located within this precinct. These buildings in general maintain surrounding yards and gardens associated with their community use as gathering spaces and provide a spacious amenity to this residential precinct.

The specific characteristics of this precinct can be summarised by the following:

- Single storey small detached dwellings located relatively close to the street and ground.
- Wide streets and wide allotments with narrow rear lanes.
- Domestic outbuildings, such as sheds and carports, that are located in rear corners of the yard separate from the dwelling and typically freestanding buildings.

### General Design Requirements

Aim:

- To maintain the single storey and detached nature of development within the residential area.

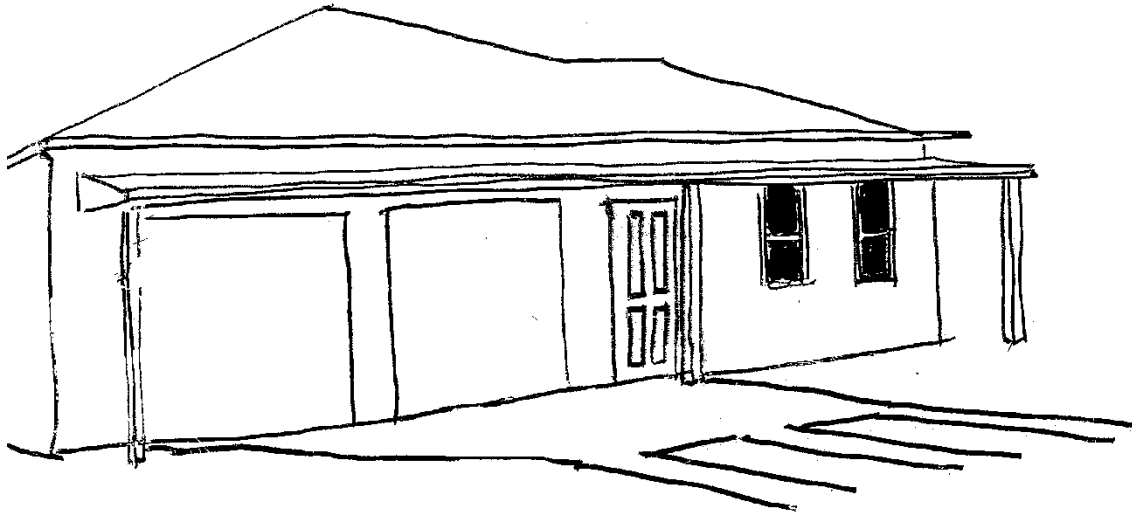
Requirements:

1. New development in residential areas should be single storey.
2. Two storeys may be permitted on steep sites e.g. Morpeth Road, providing the building is only single storey at the road frontage.
3. Additional floor area in dwellings may be accommodated within the roof space providing the overall roof height and pitch is in keeping with surrounding structures. Dormer windows should be positioned on the side or rear elevations.



*Dormer windows should be located to the rear of new development.  
Dormer windows to street elevations will generally not be acceptable.*

4. The architectural style of new development should respond to typical characteristics of existing buildings in the vicinity in the choice of materials, size, roof form and pitch and site planning.
5. Garage openings should not form part of the main street elevation of the building. If connected to the main dwelling, openings should be substantially setback from the front building line (i.e. 5m) or be connected to the rear of the building.



*New buildings with garage openings to the street are not considered to be appropriate*



*This new cottage maintained the scale of residential buildings in the vicinity of the site*

6. Important view corridors to the river and rural surrounds should be maintained.
7. No development is to obstruct view corridors as identified on the View Corridors - Map A (Morpeth).
8. Project homes (single and two storey) will generally not be appropriate in the Morpeth Conservation Area. If proposed, major changes such as the relocation of garages from front elevations, change in roof pitch, change in window style and arrangement are likely to be required.

## Alterations and Additions

### Aim:

- To respect the traditional heritage form and character of historic buildings.

### Requirements:

#### Attic additions and scale

1. Additions to be generally limited to single storey. Attic rooms, or two storey additions constructed as a distinct form behind a building may be allowed provided they do not adversely impact upon the form of the existing building, streetscape or amenity of neighbouring properties.
2. Attic spaces may be allowed in existing buildings, but only within the existing roof form without alteration to the roof pitch. Dormers or skylights must be in scale with the roof and be located on the rear elevation or on other elevations where they can be demonstrated to be sympathetic.

#### Setbacks

3. Alterations and additions should retain gaps between buildings or adjoining allotments alongside boundaries with the aim of maintaining existing views to other parts of town and particularly to rural surrounds where these views exist. Setback requirements as identified elsewhere in this document.
4. Additions should not be located in front of the existing building line.

#### Style

5. Alterations to heritage buildings should employ traditional construction methods appropriate to the era of the building.
6. Alterations and additions to contemporary buildings should employ simple contemporary design, not the reproduction of historical detail.
7. Alterations or additions visible from public spaces should be generally consistent with the character of the existing building, while not necessarily reproducing historical detail.

#### Recladding and Rendering

8. The recladding of existing timber weatherboard buildings with any material other than timber weatherboards is not encouraged. Face brickwork should remain unpainted and unrendered

#### Verandahs

9. Alterations to the front façade (including verandah additions or similar) should be in the style of the existing building, or be reconstructed to an earlier known form.
10. Original verandahs which extend across the front elevation of the building only should generally not be returned along the side elevation.





*Victorian Cottage with front verandah*



*The extension of a verandah on federation buildings such as this may be appropriate, however a verandah return around buildings of a strongly symmetrical character such as the Victoria cottage above will detract from its character and authenticity.*

## Setbacks

### Aim:

- To retain the prominence of historic and contributory buildings, and the historic pattern of residential development in Morpeth.

### Requirements:

1. New buildings including garages and carports should not obstruct streetscape views or be set forward of buildings constructed before 1949.
2. New buildings should be set back a distance equal to the greater setback of adjoining structures (the distance measured to the front building line) where these do not predate 1949.
3. Increased setbacks may be required where necessary to maintain the prominence of a significant heritage item or building constructed pre 1949.
4. Where there are no adjoining structures, in Close and Princess Streets, the setback is to be no less than 3 metres, in Green, Berkeley, Elizabeth, Ann, Market and William Streets the setback is to be a minimum of 2 metres, and all remaining streets the setback shall be 6 metres. The setback requirements apply to all residential buildings.
5. Garages, carports and sheds are required to be set back a minimum of 5 metres from the front or rear boundary (where a property has dual frontages).
6. If a building is demolished, any new building must comply with the above setback standards.
7. In the residential area, side setbacks are to be the standard 900mm minimum on one side, but increased to 2.5 - 3.5m minimum on the other to maintain views between buildings and low density characteristics.

### Close Street

8. A 1.5m footpath width measured from the kerb to the property boundary shall be retained on both sides of Close Street with the exception of sites where public utilities are located within the former road widening reserve.
9. All utilities shall be retained within the road reserve.
10. Setback requirements for Close Street will be calculated on the basis of the setback of adjoining existing buildings. Where buildings on both adjoining boundaries have been setback to allow for former road, new buildings should generally be set back the same distance.
11. Where there are no adjoining buildings, the minimum setback of 3m shall be measured from a point 4m from the kerb line.
12. New buildings shall not be set forward of any pre 1949 building.
13. Fencing along Close Street shall be restricted to suitably designed front fences to 1.2m height or timber paling fences to 1.8m height.
14. Special consideration will be given to boundary treatments on all corner sites. The height of fencing and vegetation shall be restricted to a height of 900mm, and be of an open nature.

## Dual Occupancies and Multi Dwelling Housing

### Aim:

- To maintain the detached house as the principal residential form in Morpeth and the existing density characteristics of the township.

### Requirements:

1. The detached house should be maintained as the principal residential form in Morpeth. Dual occupancies and multi dwelling housing are therefore not considered appropriate on lots with frontages to main streets (ie Swan, High, Tank, Northumberland, Robert, George, Edward).
2. Dual occupancy development will only be considered in the following circumstances:
  - Where applicable, the dual occupancy includes an existing residence fronting a main street;
  - Where the total site coverage is no more than 50 % of the site area;
  - Where the side and front setback requirements identified in this plan are maintained;
  - Where new development is not located on main streets including Swan, High, Tank, Northumberland, Robert, George and Edward Streets.
  - If access is provided from secondary lanes;
  - Dual occupancies of a suitable design may be considered on corner blocks where proposals meet the identified requirements.
3. In areas where dual occupancy development will be considered, appropriate forms include:
  - New development at the rear of existing buildings;
  - A single building mass to the street frontage, with detached garages to the rear or side of a building;
  - Building running back from the street with a shared driveway along one side providing access to the second residence fronting a main street (where there is no existing driveway crossing).
4. Inappropriate forms include:
  - A complex dominated by a central double garage or carport and driveway;
  - A repetitive form of more than 2 units along the street frontage, such as terraces or townhouses.

## Fencing

### Aim:

- To ensure that fences of heritage significance are retained and that new fences are compatible with the building and the street.



*Plain timber picket fencing*

### Requirements:

- Existing fences which contribute to the character of the area or are original to the site should be retained and repaired where necessary.
- New fences should be in a style and materials consistent with the design of the building. Fence types could include:
  - plain timber pickets (painted) 1840-1925;
  - simple mild steel rod palisade using flat steel bar rails 1860 – 1900;
  - chain link galvanised wire mesh, woven wire (not plastic coated) or steel ribbon 1900-1925;
  - hedges behind a picket or palisade fence 1860 – 1900, or in isolation 1900-1925.
- New front fencing should not exceed 1200mm in height. Side and rear boundary fencing should not exceed 1800mm in height.
- Side fences forward of the building line, and fences to the rear or side lanes or streets should be in traditional materials (ie timber paling or corrugated iron – not cliplock, colorbond or similar).
- Side fences behind the building line where they do not face onto a street or public space may be in other materials, although timber paling fences are recommended.
- Timber paling fences using steel posts in concrete footings are considered to be acceptable and will assist in minimising maintenance requirements.



*Hedge fencing*



*Simple picket fencing to a c1940's building*



## Garages, Carports and Sheds

### Aim:

- To ensure that new garages, sheds, carports and other outbuildings are not dominant within the streetscape and complement existing buildings.

### Requirements:

1. Garages, sheds and double carports should preferably be detached from the main building, located behind the rear primary building line and should not imitate detail contained on the main building (i.e. through the addition of finials or ornate timber fretwork).
2. Where attached to the main building, garages should be recessed from the main elevation (i.e. 5m) or located behind the dwelling.
3. Single detached carports may be located behind the front building line providing they are of a suitable design including timber construction with a roof pitch above 25 degrees. Other options may be considered if the above is inappropriate to the style of the building.
4. A roof pitch above 25 degrees will generally be required for carports, sheds and garages.
5. Triple door garages are not acceptable in any location visible from the street or a public place.
6. Where visible from the street, external cladding of garages should generally be consistent with that of the principal building on the site, or be of horizontal timber weatherboard construction.
7. All sheds and garages shall generally be single storey. The addition of storage attic areas above garages, carports or other outbuildings shall only be considered when roof window openings are not visible from the street.
8. Habitable space within a roof area will generally not be acceptable due to the substantial increase in required height and scale.
9. The scale and form of a garage or shed shall not dominate that of the principal residence or building, or adjoining structures.



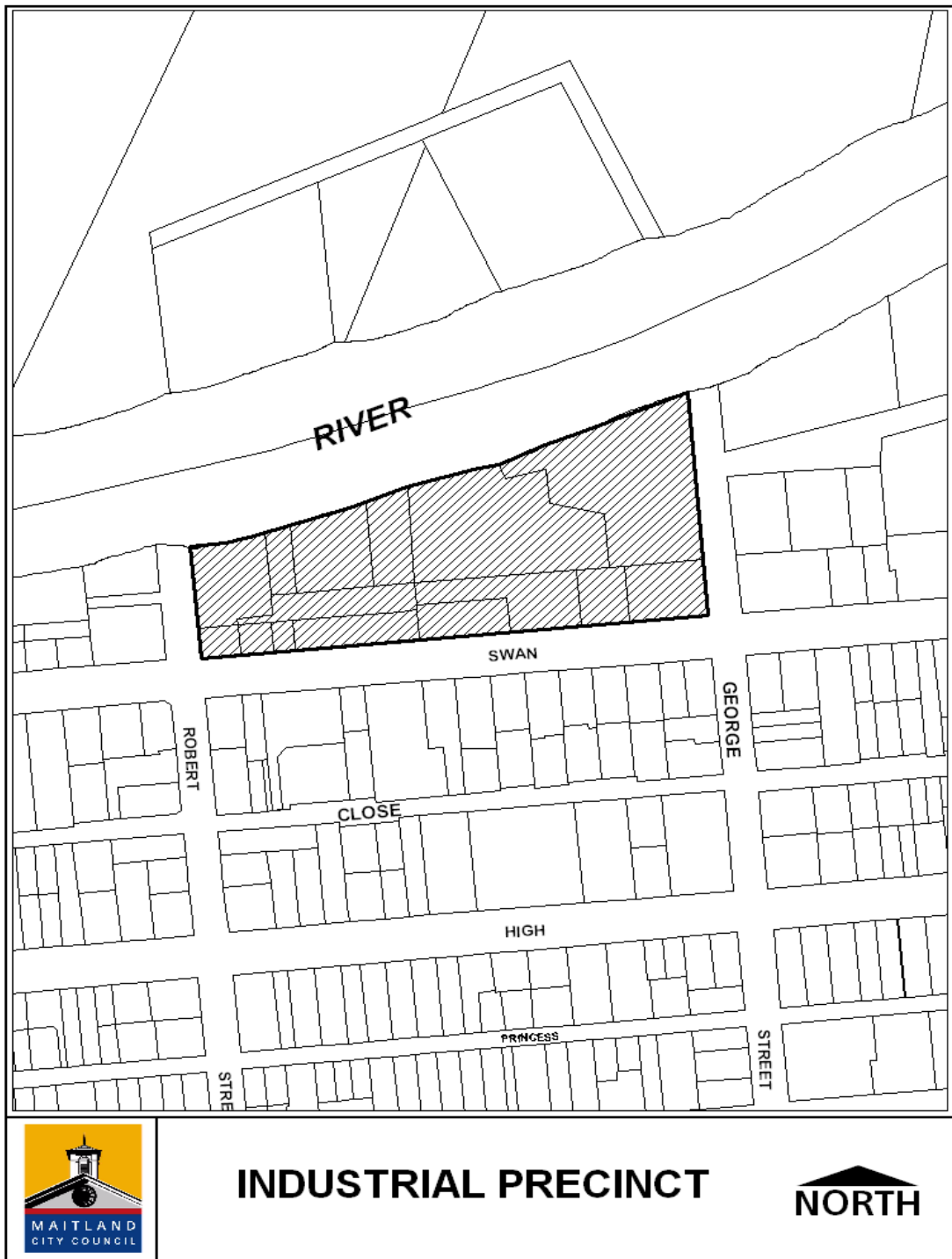
*Double garage behind the rear building line of a residence*



*Double carports or garages should be located behind the main building line, and be constructed of materials consistent with the main house or in a timber weatherboard*

### Industrial Precinct

The Industrial Precinct is contained within the eastern section of Swan Street on the northern side predominantly between Robert Street and George Street. This area represents the zoned industrial land within the town however this zone is surrounded by a combination of land uses and consequently the precinct extends across Swan, Robert and George Streets to form the basis of this industrial precinct.



The specific character of this precinct is defined by the large industrial buildings located along the edge of the Hunter River associated with the town as a river port and the Morpeth railway line. Consisting of a combination of building forms these industrial sheds are constructed in both metal sheeting and timber. Located within this precinct is a single block of buildings on the northern side of Swan Street which define this eastern end of the township with a strong built edge along the street boundary. The industrial precinct provides a tangible record of the manufacturing industries associated with the river port of Morpeth. The specific physical characteristics of this precinct can be summarised by the following:

- Limited vegetation within the precinct, including along the riverbank.
- Large scale, single pitched roof buildings of consistent building materials such as iron and timber with minimal openings in the form of windows and/or doors.
- Located along the riverbank as frontage to the site was the river rather than Swan Street.
- Landmark fig tree plantings fronting Swan Street.

**Aim:**

- Maintain the local industries established within this precinct and the existing buildings associated with their operation as a local industry and service area.
- Maintain the prominence of the industrial heritage buildings within the townscape.
- Upgrade levee bank riverside appearance of precinct, along with a physical link to rail line, with additional landscaping and maintenance works.

**Requirements:**

1. The existing industrial zonings and allowable uses should be retained.
2. New uses of an industrial or commercial nature may be considered by Council where they suit the size of the buildings and do not require major external alterations.
3. Tourist uses within these areas are not considered appropriate.



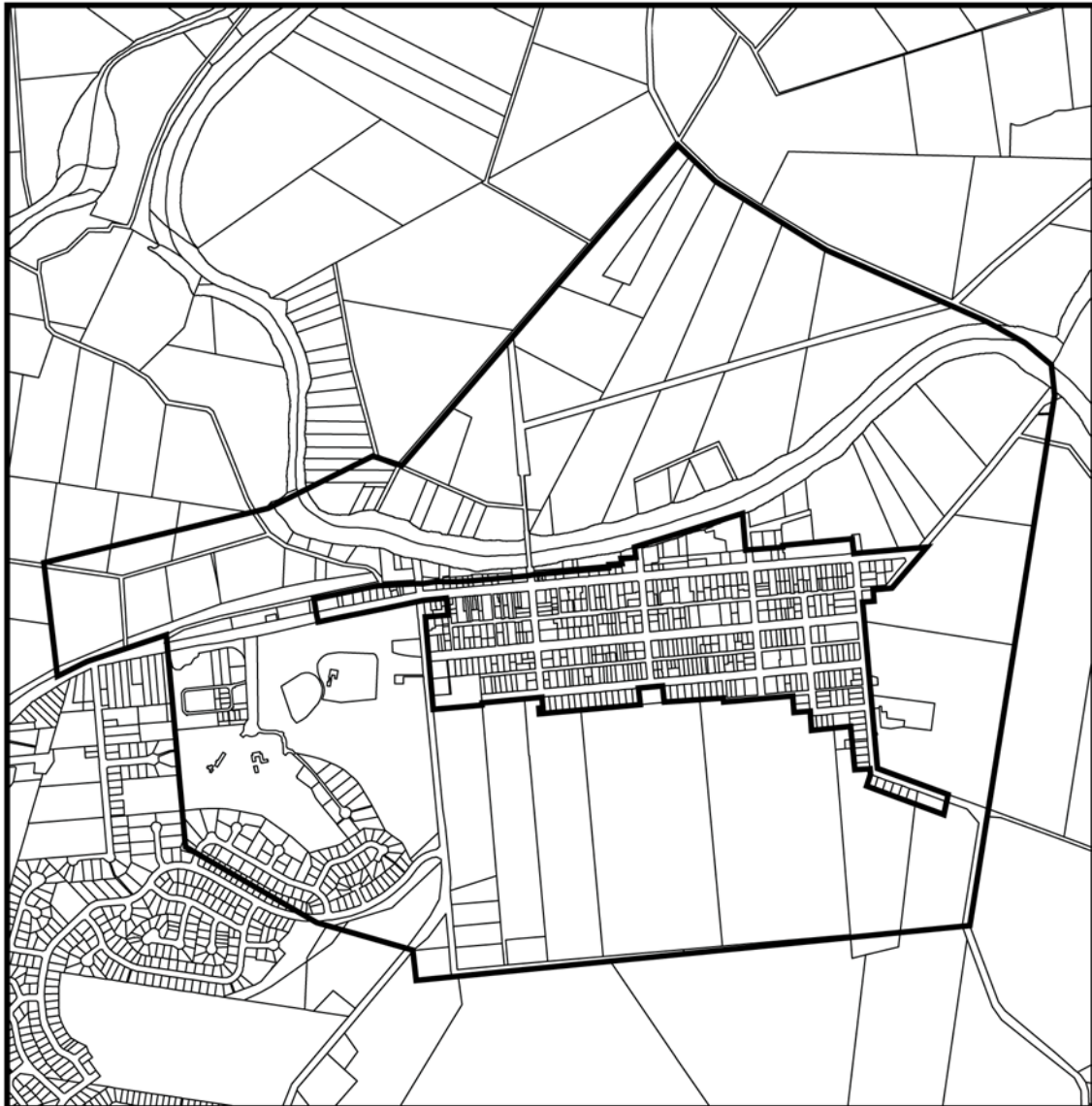
*This industrial area provides streetscape amenity through significant avenue plantings*



*Industrial zoned areas in the Morpeth township should be retained*

Rural Outskirts Precinct

The Rural Outskirts Precinct contains the Morpeth Common and sports ground as a recreational space and the rural plains that surround the township of Morpeth. This land is zoned a combination of rural and recreational and defines the edge of the town as located on a natural ridge above the river and surrounding flood prone land.



The specific character of this precinct is defined by its open rural nature that supports predominantly open pasture. The only buildings associated with this land are isolated barns and rural dwellings and those associated with the Morpeth Sportsground in the form of the grandstand and adjacent Morpeth Bowling Club.



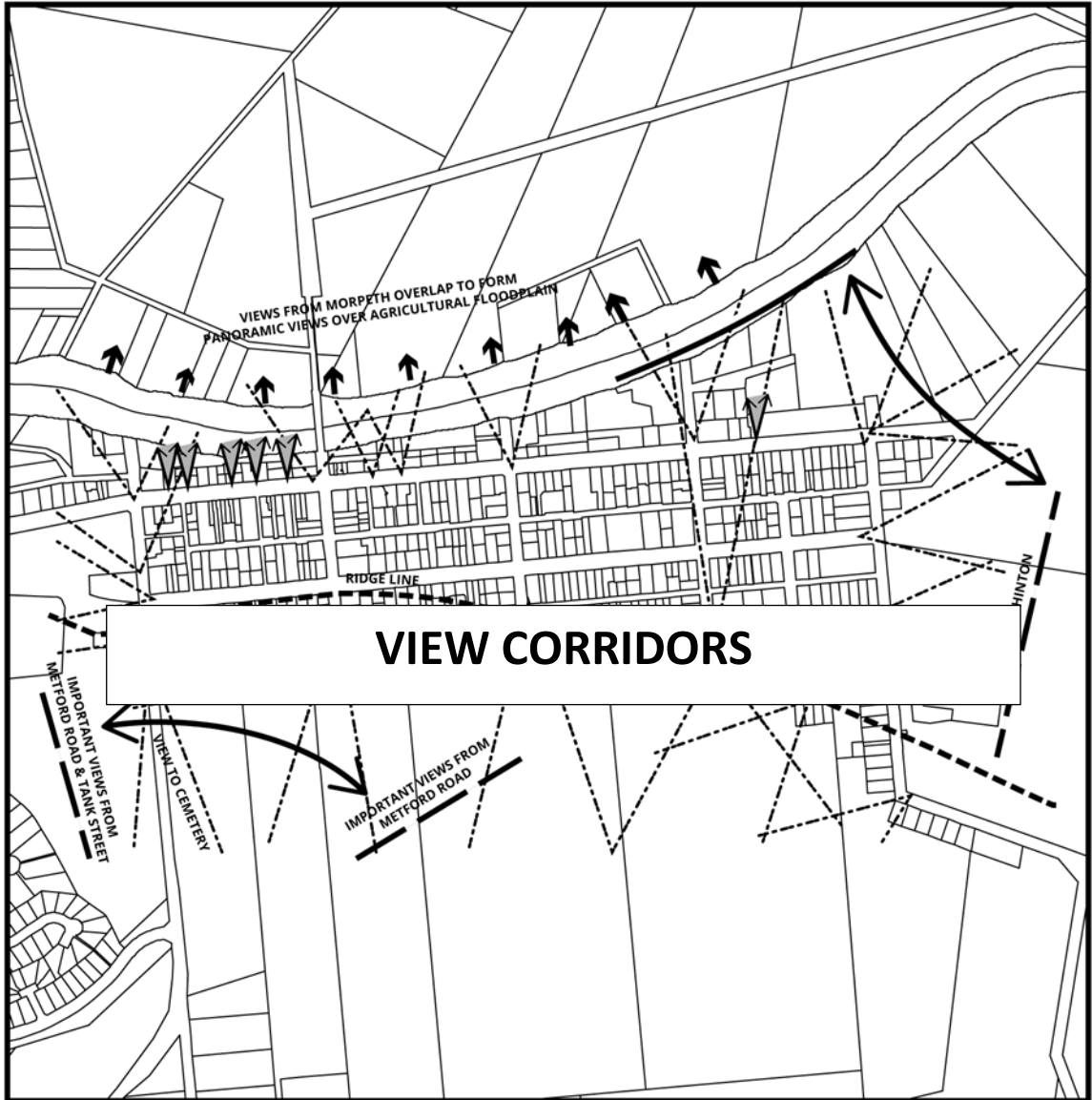
This rural land provides views to and from Morpeth of the surrounding plains, the Hunter River and the hilltop township of Morpeth as viewed from the entry roads into the town.

The specific characteristics of this precinct can be summarised by the following:

- Rural surrounds which features barns and farm houses and evidence of floods.
- Open farming plains that provide clear views to the township of Morpeth from surrounding areas.
- Incorporates the floodplains and meandering Hunter River.
- Rural approaches to the Morpeth township with landmark transition Avenue plantings at Morpeth Road (Fig Tree Hill) and Duckenfield Road.

### **Views**

Morpeth is elevated above surrounding agricultural land and river flats and has a very strong connection to these rural surrounds. Views along streets, gaps between buildings and open land at the axis of streets are of particular significance. Significant views and view corridors have been identified on the map below.



## Views from within Township to Rural Surrounds

### Aim:

The relationship between the town and the rural surrounds should be maintained through the protection of these significant view corridors.

### Requirements:

- 1 Views identified on the View Corridors – Map A (Morpeth) are protected as view corridors within which there should be no new development.
- 2 Where view corridors are identified between buildings along Swan Street, these gaps should be maintained and not obstructed by new development.
- 3 There should be no building work or tall plantings undertaken at street intersections where existing rural views would be interrupted.



*View corridors between buildings are important to retain*



*View north from Tank Street*



*View from Fig Tree Hill*



*The axis of streets should not be obstructed by new development*

## Views Toward the Town from Approach Roads and Outlying Areas

### Aim:

To maintain the setting of the village within an open rural landscape.

### Requirements:

1. There should be no non-rural (ie residential or commercial) development on surrounding rural and vacant land. Areas directly adjoining the urban township are affected by this policy and include, but are not limited to the vacant land on the corner of Tank and Close Street, allotments on the southern edge of the township, allotments to the east of Edward Street, and holdings on the northern side of the River.
2. Reference should be made to the View Corridors - Map A (Morpeth) showing view corridors towards the town which should not be obstructed by new development.
3. Planting and enhancement of the 'green belt' approaches to Morpeth is encouraged.
4. The approaches to the township should remain informal in character avoiding formal footpaths along the primary access routes ie Metford Rd and Fig Tree Hill.



*View from Tank Street*

*The approach to Morpeth along Morpeth Road*





## Subdivisions and Amalgamations

### Aim:

To maintain the general subdivision pattern of wide lots fronting the main Streets (Swan, High and James) with vehicular access from the rear lanes (Close and Princess) and to maintain old sandstone kerb and guttering.

### Requirements:

1. Where any subdivision occurs, it will generally be supported only as a Torrens Title subdivision for the purposes of a single detached residence.
2. Subdivision will generally be considered only where there is an established pattern of subdivision in the vicinity of the site and where not located in the vicinity of a heritage item or intact groupings of heritage buildings.
3. No new kerb crossings within existing sandstone kerb and gutter will be permitted, in particular on Swan, High or James Streets. Any subdivisions of allotments facing these streets will be permitted only where rear lane access to all lots can be provided and/or use existing kerb crossings.
4. Frontages to east west streets (Swan, Close, High, Princess and James) shall not be reduced to less than 15 metres, and frontages to side streets shall not be reduced to less than 40m.
5. No amalgamation of sites permitted, unless for a use of identified community benefit.



*Sandstone Kerb and Guttering in High Street*

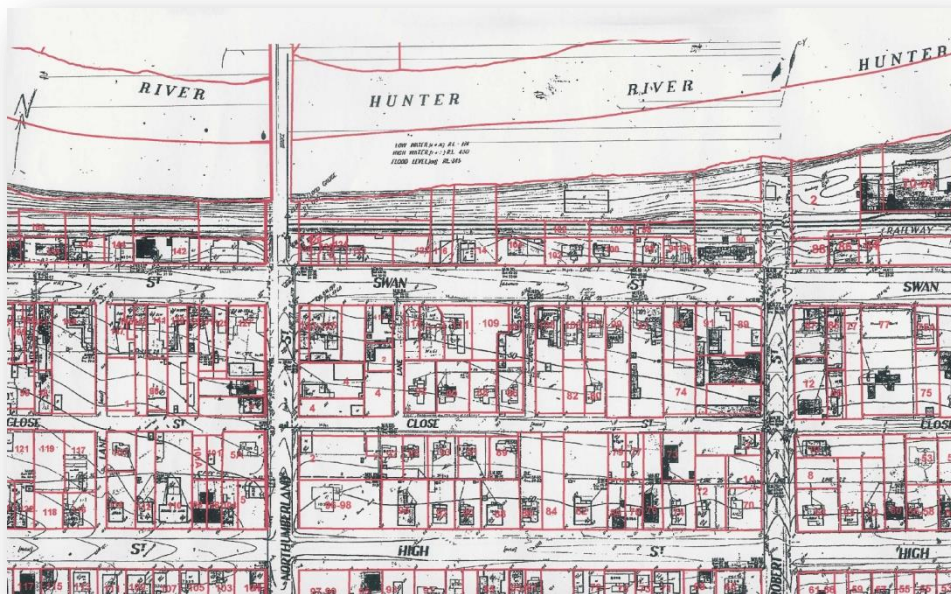
## Demolition

### Aim:

To retain the character of Morpeth as a collection of groups of buildings from different eras, in particular those dating from the mid to late 19<sup>th</sup> century.

### Requirements:

1. Demolition of any pre 1949 structure will generally not be supported. Demolition includes partial demolition or the defacing or replacement of external materials and finishes. No demolition of a building will be permitted without development approval for the replacement structure. (Note: A reference plan showing those buildings existing in 1949 is available for viewing at Maitland City Council. The plans are also provided as Attachment 1).
2. In some cases the demolition of severely deteriorated sheds, garages or small sheds will be considered, providing the replacement building is of a suitable design, and the shed itself has no heritage value.
3. Any proposal for the demolition of a building is required to be accompanied by:
  - (a) A Statement from an engineer experienced in the assessment of heritage buildings including options for the repair and reuse of the structure where relevant; and
  - (b) A Statement of Heritage Impact from a suitably qualified heritage consultant assessing the heritage significance of the building and a heritage assessment of any replacement proposal. Detailed requirements are provided elsewhere in this document.



*Excerpt from the plan showing the location of buildings pre 1949*

## Adaptive Re-Use of Buildings in Residential Zones

### Aim:

To allow buildings constructed for non-residential uses to have viable future.

### Requirements:

1. Non-residential uses will be permitted in the following structures with the possibility of using additional space on the site providing the structure and its heritage values are maintained and there are no additional negative impacts on the immediate neighbourhood:
  - Former Cinema 85 High Street;
  - Former Shop and dwelling 79 High Street;
  - Green barn 60 James Street;
  - Former Catholic School James Street;
  - Former milking shed beside 376 Morpeth road;
  - Shed Princess Street (rear of 39 High Street);
  - Morpeth Trading co 7-9 Robert Street;
  - Post Office and residence 105 Swan Street;
  - Hairdresser, former barbers shop 94 Swan Street



*Former Barbers Shop at 94 Swan Street*

## Car Parking

Aim:

To maintain the level of visitation within the capacity of the town and to accommodate it without an adverse impact on heritage.

### REQUIREMENTS:

1. Land zoned R1 General Residential fronting Close Street at the rear of Swan Street commercial properties to be retained providing service access and car parking.
2. All new commercial development should provide on site carparking.
3. Commercial premises to provide on site staff parking areas.
4. Buildings with upper levels over parking or service areas will not be permitted where visible from the street or public places.

## **1.4 Streetscape Policy**

The design approach suggested by this study is that of authenticity and unobtrusiveness – the retention and reconstruction of authentic historic elements wherever possible, supplemented by quality but unobtrusive new elements as required.

It encourages the use of a variety of designs, including the use of one-off and/or locally crafted pieces, with consistency achieved by a restricted palette of materials, rather than the selection of a few standard pieces. It also encourages designs that respond to the layout of a particular setting rather than a set layout applied throughout the town.

## Road Surfaces

The streets within Morpeth have traditionally had unformed edges. Gravel shoulders to principle streets and bitumen running to grass swale drains on minor streets characterise the town, with the exception being Swan Street where bitumen runs to the sandstone gutter.

Sandstone kerb and guttering is located along the principal streets of Morpeth that include Swan, High and Tank Streets with parts of Northumberland, Robert and Close Streets also featuring sandstone kerb and guttering and stone swale drains.

Aim:

To maintain the diversity and hierarchy of the road surfaces in Morpeth and to ensure no further loss of unformed gravel or grassed verge edges.

Requirements:



### *Road Surfaces*

1. Retain the existing mix of road surfaces (bitumen with gravel or grassed edges) that maintain the visual emphasis on the central section of the road.
2. Existing road surfaces that presently feature bitumen shall maintain a clearance to the outer edge of the gutter and shall not extend over the surface of the gutter stones.
3. Where there is existing bitumen extended across the full width of the road, maintenance and upgrading of these road shoulders should provide a contrast with the central bitumen section in colour by the use of brown aggregate or the like, if suitable materials are available.

### *Road Verges*

4. Extend grassed verges, use dust suppressants or use gravel mixed with concrete as potential options to dust generation and erosion problems.
5. Maintain existing road shoulders of compacted gravel and open grassed verges. Consideration may be given to bitumen finished with a concrete strip with grassed verges (i.e. King Street Lorn and parking areas at the eastern end of Swan Street Morpeth) or permeable paving where cost effective (e.g. grass rings).



*Example of a grass shoulder in Morpeth*

### Footpaths

The footpaths within Morpeth take three forms: hard paving generally full width in the Commercial precinct of Swan Street; narrow paved paths with grass verges in adjoining streets to the Commercial precinct; and grass with small sections of formed paths in the remainder of the residential area.

Three distinct precincts are established in Morpeth and separate requirements for the construction and maintenance of foot paving exists for each.

There is diversity within the paving types in the Commercial precinct of Morpeth. The paving types include sandstone flagging, brick pavers, bitumen and concrete

with sandstone flagging. This last type is typically located adjacent to original shopfronts, identifying it as an important characteristic of this commercial area

Aim:

To ensure that the authentic, original footpath materials are retained and that standards are established for footpaths, specific to their location.

Requirements:

#### *All Footpaths*

1. Retain the existing diversity of type and location of footpaths. This identifies their hierarchy in the Morpeth streetscape.
2. Footpaths to only be replaced when their condition requires reconstruction. When replacing footpaths either repair original, sympathetic surface; if not possible, reconstruct path to an earlier known form; or if not known, replace with new path using the Morpeth Footpath mix.
3. Original sandstone flagging is to be retained in situ wherever possible. Minimal replacement work should only be undertaken where it will improve safety or rectify poor work.
4. Bitumen is to be removed from sandstone where possible, as part of ongoing maintenance and restoration works.
5. New sandstone flagging shall only be laid in areas where it can be shown to have previously existed.
6. All new footpath paving shall consist of unadorned concrete made from a Morpeth Footpath Mix, except where noted.

#### *Commercial Precinct Footpaths*

7. In Swan Street, full width footpaths are only to be constructed where the adjoining building presently supports an awning or verandah that extends fully across the width of the footpath.
8. On the southern side of Swan Street where no awnings or verandahs exist across the footpath, paving shall be maintained to a central area of between 1500mm – 1800mm, with grass verges to either side of the central path.



*Sandstone flagging of commercial footpaths*

### *Residential Precinct Footpaths*

9. Regarded grassed verges shall be maintained as the predominant footpath for residential streets, particularly in High Street.
10. New footpaths may be provided where demand can be shown due to pedestrian volume (visible tracks), water problems, erosion or the interpretation of the heritage character. These footpaths shall be minimal in width and shall maintain grassed nature strips at their sides.
11. Driveways should provide a minimal use of hard paving, consisting of unadorned concrete and paired wheel strips across the footpath area. Infill areas between wheel strips shall be confined to private property and shall consist of soft landscaping such as turf, grass rings or gravel.



*Residential footpath with grassed verges*

### *Outskirts Precinct Footpaths*

12. Paved footpaths may be provided where demand can be shown due to pedestrian volume, water problems, erosion and the interpretation of heritage

character. These footpaths shall be minimal in width and shall only consist of compacted gravel surfaces.



*Compacted gravel footpath in Swan Street outskirts precinct*

### Kerb & Gutter

The sandstone drainage and swale drain system constitutes one of the most significant elements of the Morpeth streetscape due to its intact nature throughout the township. It remains uninterrupted in the principal streets of the town and sandstone swale drains are present in some secondary streets. The lack of formed drains in some areas, where grassed drains exist, is equally as significant. In more recently developed areas of the town, concrete kerb and guttering predominates.

Council has in recent years come under community pressure to alter and increase kerb and guttering in the town, to address drainage, driveway and amenity issues. These pressures have resulted in the introduction of a sandstone and concrete swale drain in some of the minor streets behind the Commercial precinct. This type of work is now considered to be inappropriate given the heritage significance of this element of the streetscape, as it can confuse old fabric with new and undermine the distinction of the road hierarchy.

Aim:

To retain the historic pattern and remnants of sandstone drainage and swale drain systems in the Morpeth streetscape.

Requirements:

1. Retain all existing sandstone kerb and guttering and sandstone swale drains with appropriate maintenance programs.
2. Avoid the replacement, damage or obscuring of in situ sandstone drainage systems.
3. Maintain grass or bitumen swale drains in minor streets. No new kerb and guttering in minor streets.
4. Stormwater outlets from buildings to stone kerbs should reuse existing pipes to minimise new outlets. Outlets should be contained within existing holes in the stone, without any visible PVC piping.



5. Retain identification of archaeological evidence within kerb and guttering that allows interpretation, including verandah post bases, stormwater outlets and kerb crossing.
6. New concrete kerb and guttering in Swan, High and James Streets is to consist of a wider kerb and gutter (indicative or traditional sandstone in scale and dimension) using the Morpeth Kerb and Gutter Mix concrete to maintain compatible texture and colour.



*Grassed swale drain in a minor street of Morpeth*



*Residential stormwater outlet utilising an existing hole within the kerb and guttering*



*Example of a sandstone swale drain*

## Kerb Crossings

The intact nature of the kerb and gutter within the Morpeth streetscape limits the ability for kerb cutting or removal to provide access for vehicle and pedestrian ramps. The removal of existing stone kerb and gutter to provide at-grade crossings is inappropriate within Morpeth and consequently kerb-crossing bridges may be provided across existing stone kerb and gutter as an accessible path.

Kerb crossings shall only be considered where they are associated with established pedestrian footpaths and shall be limited in number to reduce the impact of the stone kerb and gutters.

### Aim:

To preserve the intact nature of kerb and gutter within the Morpeth streetscape by providing for kerb crossing bridges in appropriate locations.

### Requirements:

1. Kerb crossings should preferably consist of a bridge crossing (1200mm maximum width) with discreetly located culvert piping (no visible piping) to accommodate stormwater flows. The construction and alterations to any bridge crossings shall comply with the gradients specified in *Australian Standard 1428.2 Design for Access and Mobility*.
2. No new kerb crossings for vehicles in areas of sandstone kerb and guttering, particularly along High, Swan and major cross streets. Access should be provided from rear lanes.



*Example of a new kerb bridge*

## Street Furniture

Morpeth has a diversity of styles of street furniture that forms a neutral element within the streetscape. The items that have heritage significance include the street lamp outside the courthouse museum, the hitching posts and the cast iron horse troughs.

The major issue in regard to street furniture is the introduction of inappropriate pseudo-historic styles and/ or highly intrusive items such as wheelie-bins or telephone booths and the replacement or loss of the existing items of value.

### Aim:

To maintain authentic street furniture in Morpeth, with new elements to be unobtrusive and high quality.

### General Requirements:

1. Street furniture should remain as a neutral element in the streetscape.
2. Designs that in some way interpret or draw upon the history of the town are encouraged.
3. Locations for seats and table that can utilise existing or proposed sun and rain protection from trees or buildings are encouraged.
4. While elements should be fairly regularly spaced out within any given area to minimise clutter, they should also be clustered in areas of specific demand.
5. Items should not obscure historic details, including sandstone flagging or specific historic features of buildings, or important views, such as those along laneways or between buildings overlooking the river flats.
6. Street furniture should preferably not be fixed to items of historic significance, including sandstone flagging. If fixing is required, it must cause minimal impact and be readily reversible. Stainless steel should be used for all fixings to historic stone or brickwork to prevent rust damaging the material.
7. Public services (such as public telephones, ATMs) shall only be located within existing sheltered areas off main thoroughfares or internal to buildings and shall comply with AS 1428.2.
8. The provision of street furniture shall provide for clear, safe and unobstructed access for people mobility restrictions in accordance with AS 1428.2.

### Location Specific Requirements:

A number of different components and locations influence street furniture in Morpeth. The range and styles of street furniture reflects and enhances the character of the specific area.



### *Formal Settings*

These elements are to be located at the street frontage of public or formal buildings and should be positioned to respond to the symmetry or axis of the building's architecture.

These buildings include:

- Courthouse
- Post office
- Railway station
- School of Arts
- Old bank on Swan Street
- School
- Police Station



*Formal setting seat top match existing seating*

9. The design of these items should match the existing cast iron and timber benches at the courthouse. Timber used for seating should be oiled, with cast iron painted or left natural.

### *Town Centre*

These principles relate to the Commercial precinct but exclude formal buildings and shops with verandahs and awnings.

10. Street furniture in the town centre should be a modern interpretation of traditional park design with wrought iron frames and timber slatted seats. Frames should be painted and timbers oiled.



*Picnic table settings for parks in Town Centre*



*Seating for the Town Centre*

## *Shops*

The location of street furniture for shops is on footpaths outside shops within the town centre, particularly where they are protected by a verandah or awning and the footpath is paved to the kerb.

Seating in this location may be privately owned or provided by Council.

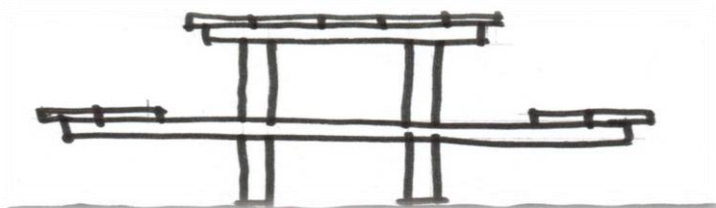
11. One private seat per shop is generally adequate, and additional seating should only be used for wide frontages or where the demand can be demonstrated.
12. Private seats should be located immediately outside shops.
13. For seating provided by shop owners, the use of original or one-off designs are encouraged to build on the unique character of the town, although a standard design is also acceptable.
14. Original or one-off designs should be made of traditional materials (timber, metal or stone) and not be overly large or intrusive in design. Use of recycled and historic elements is encouraged, particularly where they originate in the town or interpret historic themes of the area. Overly ornate details, such as scrolled or shaped backs and arms are not appropriate. Items should be readily distinguishable as new.
15. A simple example would be a timber bench made of hardwood or perhaps railway sleepers.
16. Seating should appear as “loose furniture”. Fixings should be readily reversible to allow removal in the future.
17. Timber garden-type seats and benches are encouraged as a standard design.
18. The existing metal/ timber and concrete/ timber seats in this location are to be removed.
19. Consent may be necessary before the placement of new furniture on the footpath. Please contact Council to confirm.

## *Parks*

Parks are located around the edges of the town and roadside reserve including:

- Queens Wharf
- Morpeth Common
- Fig Tree Hill
- Morpeth Wharf

20. A modern style of seating is preferred; using timber framed settings with a rugged design and oiled timbers.

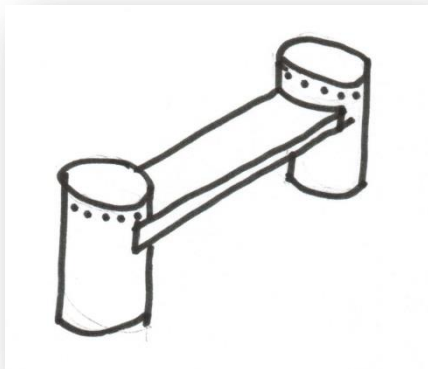


*Profile of example of picnic setting for park areas*

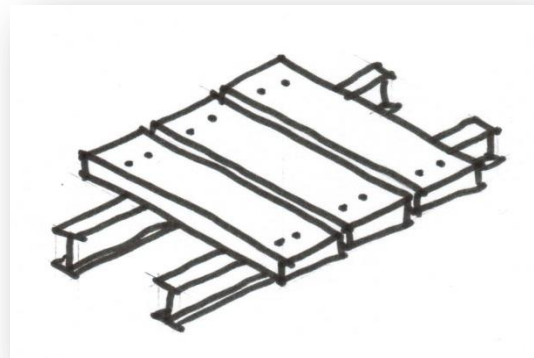
### Natural Areas

Natural areas in Morpeth principally include the riverbanks between Robert and Tank Streets but also include:

- Queens Wharf
  - The area below Illalaung Park
  - Land adjacent to Morpeth Wharf
  - (Morpeth Common) around the pond
  - The avenue leading to Closebourne adjacent to the water tower
21. Original and one-off designs are proposed for natural areas. Use of recycled and historic elements is encouraged. Items should be rugged to require minimal maintenance and withstand the effects of flooding. The seats should be informal in design and be located to respond to views of the river, sandstone cuttings or other natural or historic features.
22. Designs might include, for example, the use of railway sleepers or rails, heavy hardwood timbers similar to jetty construction, or sandstone blocks. They need not be complex structures.



*"Wharf seat" – example of simple seating drawing on history of Morpeth*



*Seating made from rail tracks and sleepers also draws on the heritage of development in Morpeth*

23. Shelters to picnic settings should be large enough to provide adequate protection from sun and rain. Within parks, provision of larger shelter shed to house several tables and barbecues is encouraged. Simple structures of hardwood timber framing and galvanised corrugated iron gable roofs are appropriate.



*Simple structure to house picnic settings*

### *Bins*

24. Bins should be evenly distributed throughout the commercial area, though with greater capacity around waste-generating places such as takeaway food shops and the parks.
25. Bins within parks should be set back and not immediately adjacent to the street.
26. All freestanding and post-supported wheelie bins should be removed from the town centre.
27. Existing and new bin enclosures should be located where they:
  - a) Are not immediately in front of an historic building
  - b) Do not obscure any historic details such as sandstone flagging
  - c) Do not obstruct views along laneways or between buildings
  - d) Otherwise impede appreciation of the historic character of the town
  - e) Can be preferably setback from the kerb.
28. Shopkeepers are also encouraged to provide their own bins for use by customers, inside their own premises.
29. Bin enclosures of metal and timber design to match the existing structures are recommended. Timber should be oiled and metal painted dark grey. Grouped enclosures in parks are appropriate.

### *Marker Posts*

30. Marker posts include bollards, directional signs and posts and should only be used where appropriate to enclose and identify hazards.
31. Original posts should be retained in situ.
32. Reconstruction of missing historic bollards is appropriate but their replication and widespread use throughout the town is not.
33. White painted, round log posts are recommended within road reserves.
34. Marker posts on footpaths should be white painted, square timber posts.
35. Where continuous barriers are required, white painted post and rail-type hitching rails are appropriate.
36. Black metal bollards with ball tops and chains may be used to enclose items such as culverts.

### *Street Lights*

37. 37 It is appropriate to reconstruct streetlights to match existing lights at original locations, with ceiling mounted fittings under verandahs or awning outside commercial buildings.
38. 38 Simple modern light fittings mounted on existing electricity poles or buildings, or if required on specifically installed timber poles, may be used to light parks and other parts of Swan Street.
39. 39 Widespread replication and use of historic lights is not appropriate. Reconstruction of missing historic lights is appropriate.

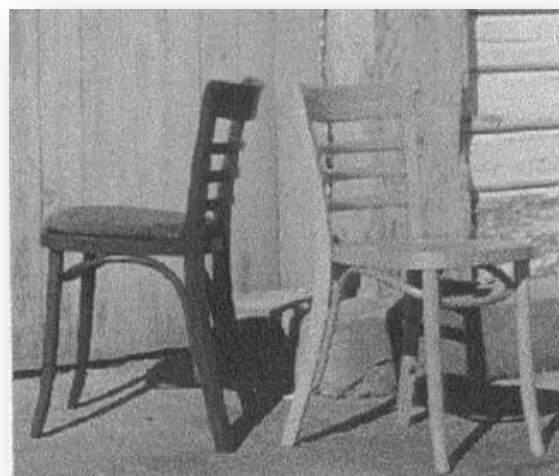
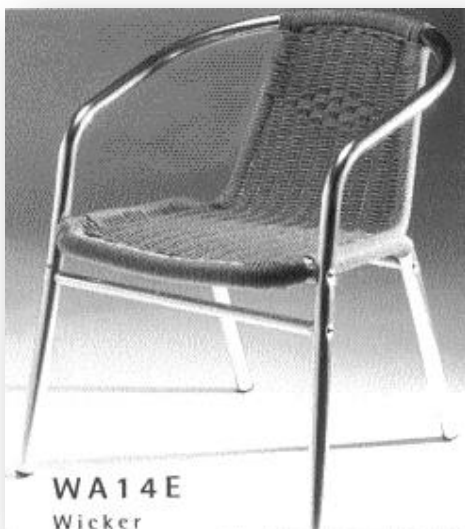


*Other items*

40. Barbecues – the existing barbecues are to be rendered and re-tiled in a more unobtrusive scheme, with the tiling possibly replaced by polished concrete or terrazzo. New barbecues are to be constructed to this design.
41. Drinking fountains – the cast iron drinking fountain at the courthouse is to be retained, with new drinking fountains to be unobtrusive, modern stainless steel design similar to other existing drinking fountains.
42. Telephone Boxes – old painted timber telephone boxes within the town centre are to be refurbished and reused where appropriate. Modern telephone boxes may be used outside the town centre but should be finished with a dark paint. Shopkeepers should be encouraged to provide public telephones within their premises.

*Outdoor Dining*

43. These provisions apply to all outdoor dining settings, including those on verandahs, courtyards and laneways.
44. Settings shall be located so as to relate directly to the establishment to which they belong. They must not obstruct free pedestrian movement along the footpath.
45. The design of outdoor dining furniture should be either a classic traditional style or a modern unobtrusive style.
46. Materials should be traditional; such as timber, wicker, metal or stone, though modern forms such as aluminium or stainless steel, timber veneers and synthetic wickers may be suitable.
47. Metal components may be polished however highly reflective surfaces should be minimised.
48. The use of tablecloths is discouraged to minimise clutter.
49. Plastic furniture is not appropriate.
50. Original and one-off designs are also acceptable provided they use traditional materials (timber, metal or stone).



*Examples of Chairs appropriate for Outdoor Dining*



*Examples of appropriate tables for Outdoor Dining*

### *Umbrellas and Canvas Blinds*

50. The use of umbrellas on footpaths outside shops where verandahs or awnings are not present or are setback from the kerb is appropriate. Their use under verandahs and awnings is discouraged.
51. Umbrellas must be canvas and timber market type of a neutral, unobtrusive colour and preferably set in the middle or at the edge of tables to minimise clutter rather than be freestanding between tables.
52. Umbrellas should not contain any advertising logos except for the name of the business plus/ or one (1) product that is a core product of the business or is supplied to the public, subject to a merits based assessment and approval of the style, colour and location of the business name and/ or product name.
53. Traditional canvas drop blinds fixed to the verandah or awning edge are historically appropriate. The same design principles apply as for umbrellas.

### *Barriers*

54. Barriers are most appropriate in visually defining an area, rather than physical barriers and are more suitable around large areas of permanent outdoor dining.
55. Barriers should not create visual clutter or potential trip hazards.
56. Barriers are discouraged in Morpeth, but where necessary should be constructed of traditional materials and removed when not in use.
57. No advertising logos are permitted on barriers, except for the name of the business.

## Interpretational Signage

Information signage includes route markers for historic tracks and trails (generally incorporated into footpath paving), and informational signage related to the nature and operation of public or community buildings or places.

Aim:

To provide for public signage that allows interpretation and information of historical buildings and places, in a visible and accessible location that is discrete and relevant.

Requirements:

- 1 Interpretational signage shall be confined to historical buildings and places. These signs shall only be erected where their placement will be easily visible and accessible and where they will not obstruct significant view corridors or established pedestrian routes.
- 2 Signage shall be confined to a single nameplate for historic buildings, mounted on the wall of the buildings such that the mounting does not damage the fabric of the building. Alternatively, the signage may be fixed to a grounded post.
- 3 All signage should comply with Australian Standard AS 1428.2 for people with a vision impairment and be located at a level for common viewing.
- 4 Signage that is obsolete or no longer fulfils its purpose should be removed.

## Repairs and Maintenance

Aim:

To ensure the retention of historic stone elements within the Morpeth streetscape, by encouraging appropriate conservation and maintenance methods.

Requirements:

### *General*

1. Traditional materials and techniques should be used in repair work. Modern materials and techniques should only be used where substantial conservation benefits would be achieved.
2. A cautious approach should be taken when working on existing sandstone kerb and guttering or swale drains, so that as little change as possible is made.
3. New work should be readily identifiable as “new” and additions to stone items should be reversible, without damage being caused to the stone.

### *Kerb and Gutter*

4. Any gutters, drains or drainage works should be cleaned out by hand and reconstructed where necessary for the adequate operation of the works. Street cleaning machines should not be used for the cleaning of gutters.
5. All areas to be reconstructed should be chalk marked, photographically recorded and re-laid in the original configuration and construction details.
6. Relaying of kerb and guttering should preferably be undertaken on a porous bed of sand/ gravel mix with stones dry laid to avoid the use of mortar between the joints.

Bed depths and finalized designs should be identified through site-specific geotechnical investigations and liaison with suitably qualified heritage consultants. The location and depth of services and traffic loads should be considered.

7. Double edged stone kerb and gutter should be maintained in the current configuration.
8. An audit of archaeological evidence within stone kerb and guttering should be undertaken in Swan Street, prior to any relaying of stone or major repair works. A suitably qualified consultant should undertake the audit.

#### *Stone Flagging*

9. Where stone flagging has been covered by bitumen and requires maintenance, the flagstones should be cleaned and re-laid, and further stones found to replace those that are badly damaged.
10. Repair of existing flagging should be contained to minimal stone replacement work, undertaken only to improve safety or rectify areas of poor work. As much original fabric as possible should be retained in situ even though it may not be in as good condition or look as good aesthetically.
11. Replacement of deteriorated stone with synthetic stones is inappropriate for large areas, but may be used for small damaged sections. Should a stone require replacement, the deteriorated section should be cut back to sound stone, and cut to a regular shape to enable a new block to be inserted. This process however introduces a new material and should only be used where no other alternative is available.

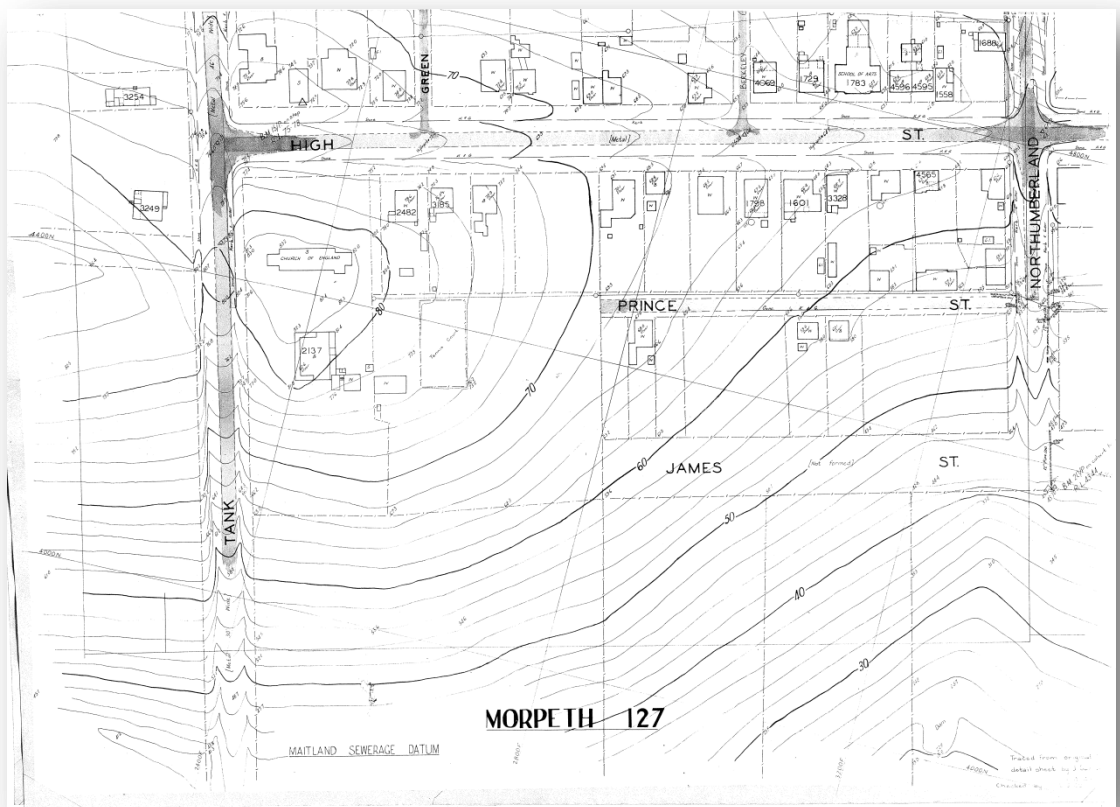
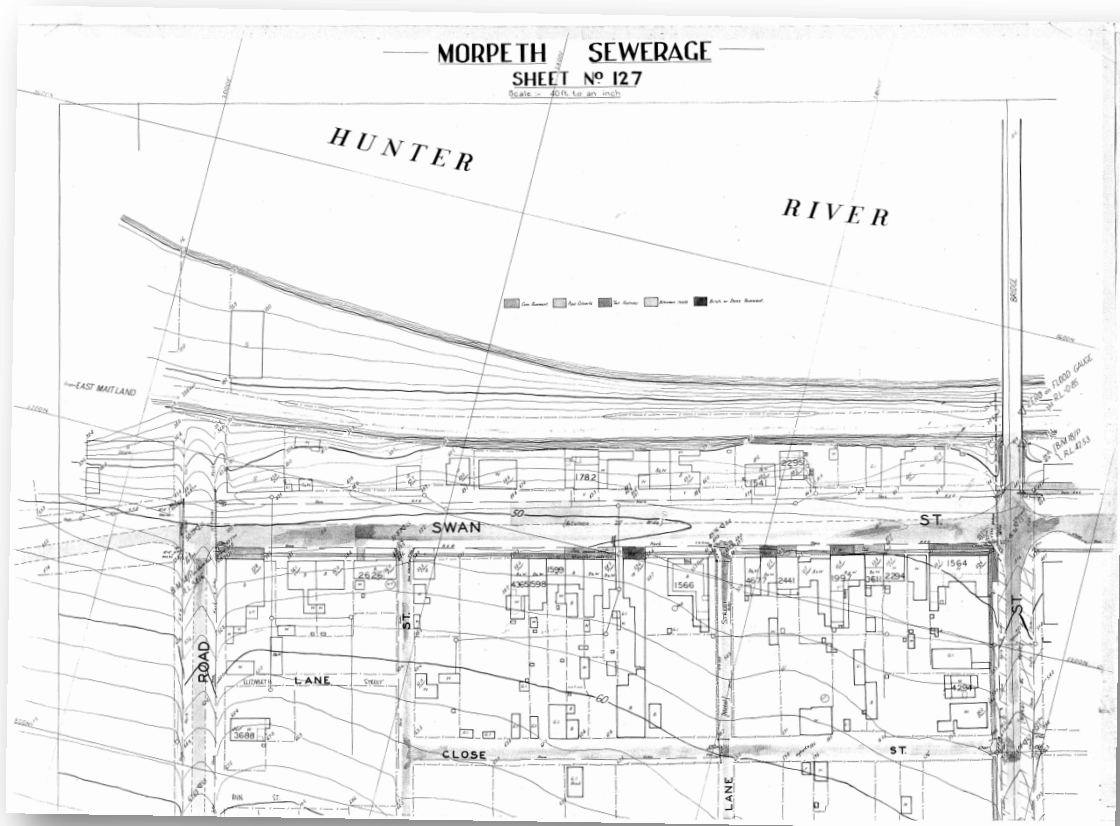


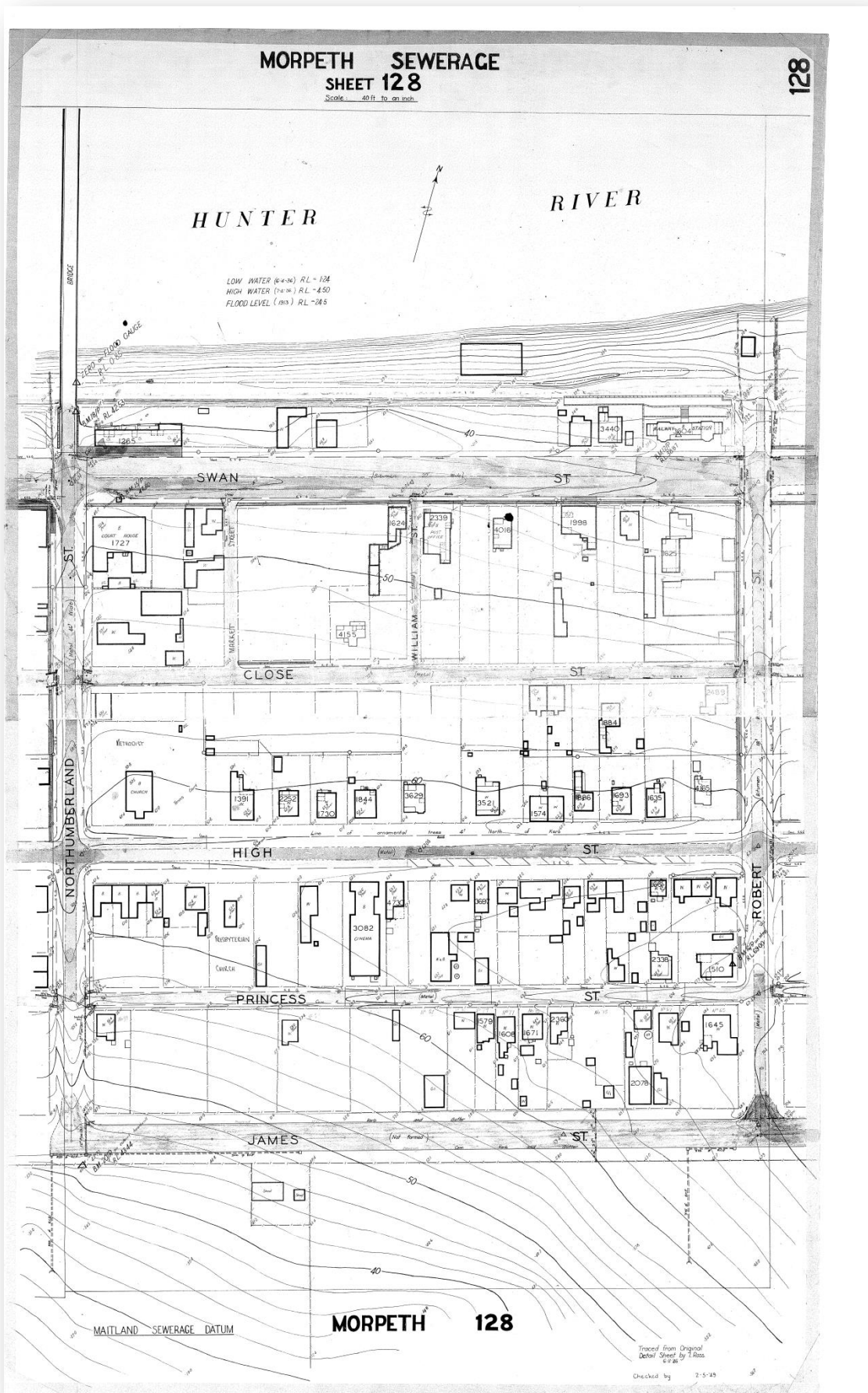
*Example of bitumen extending over the sandstone kerb and guttering*



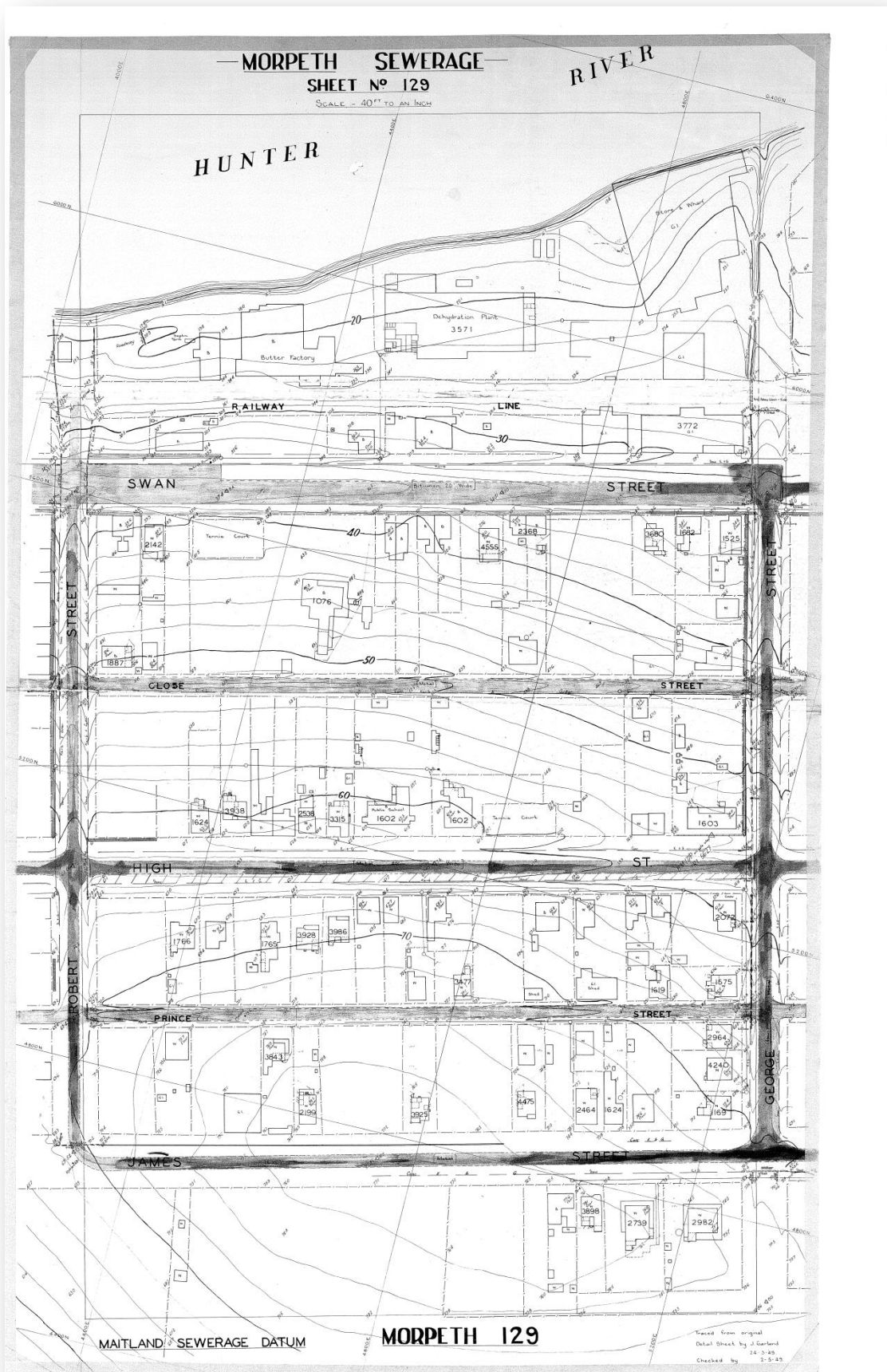
## **Attachment 1**

### **Existing Buildings c.1949**

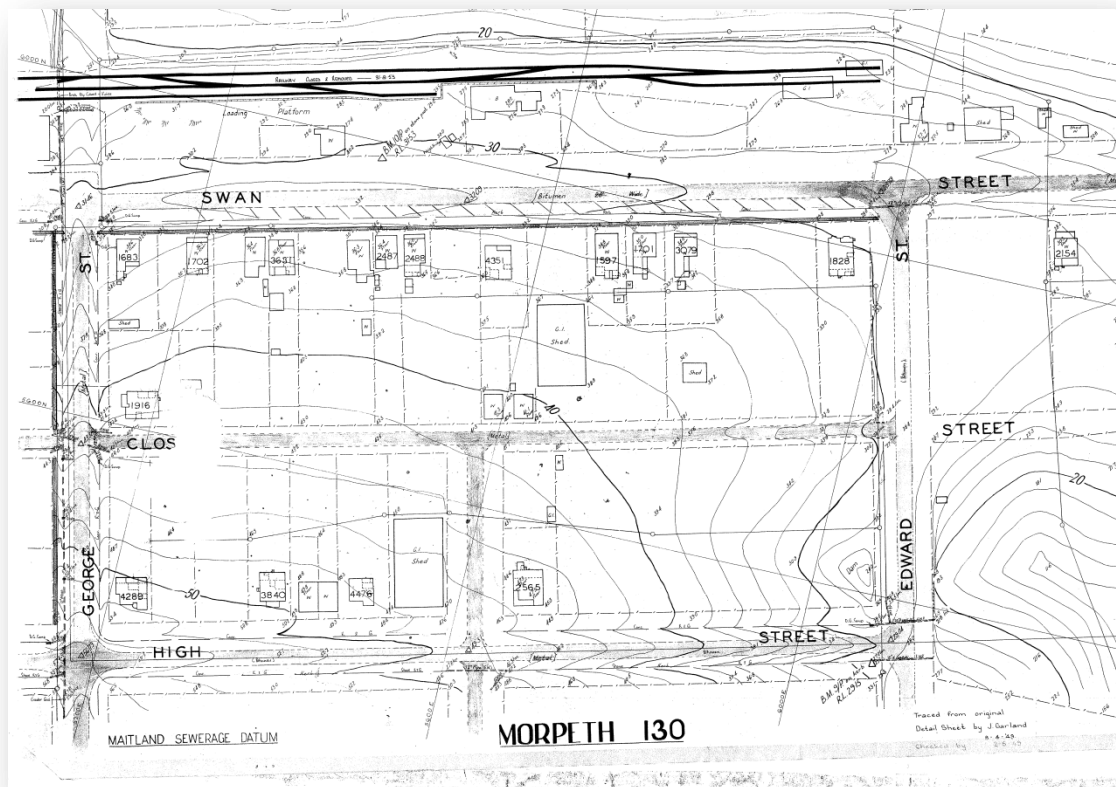
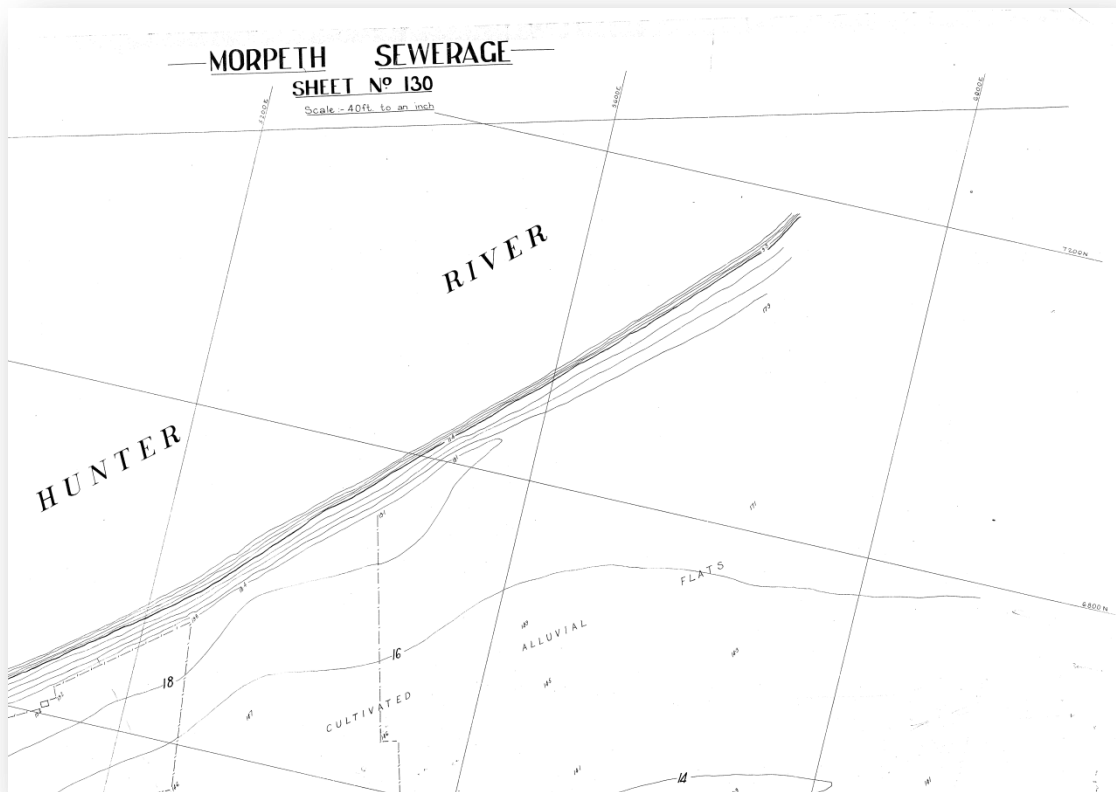


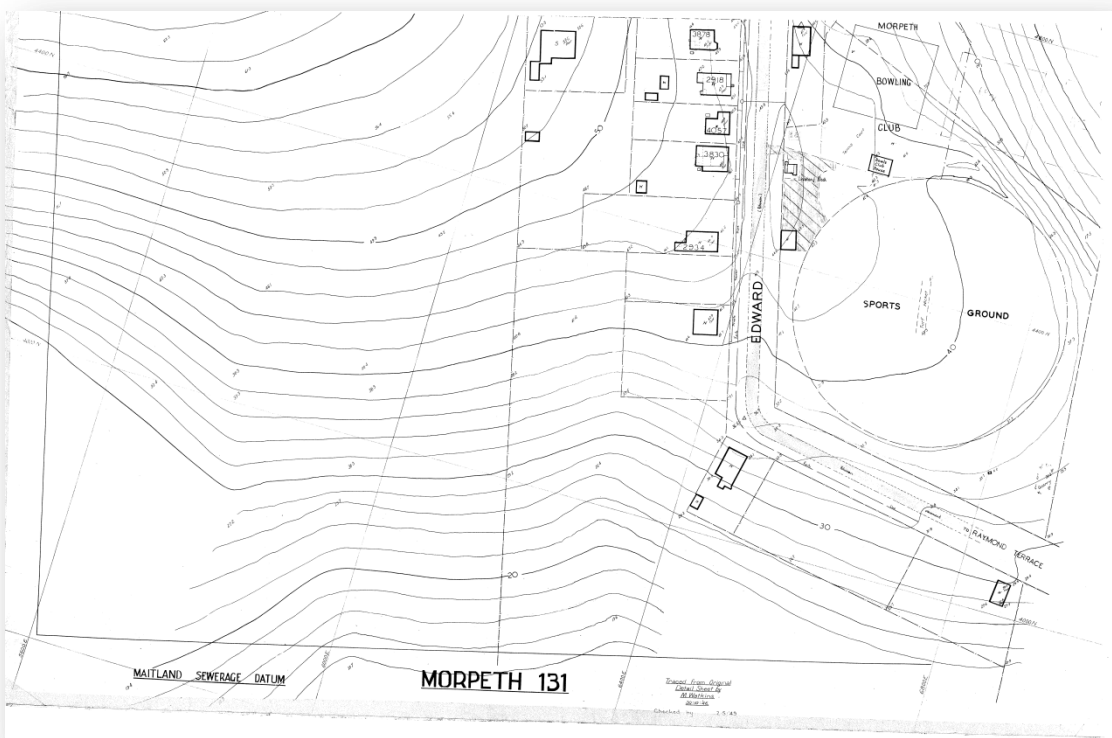
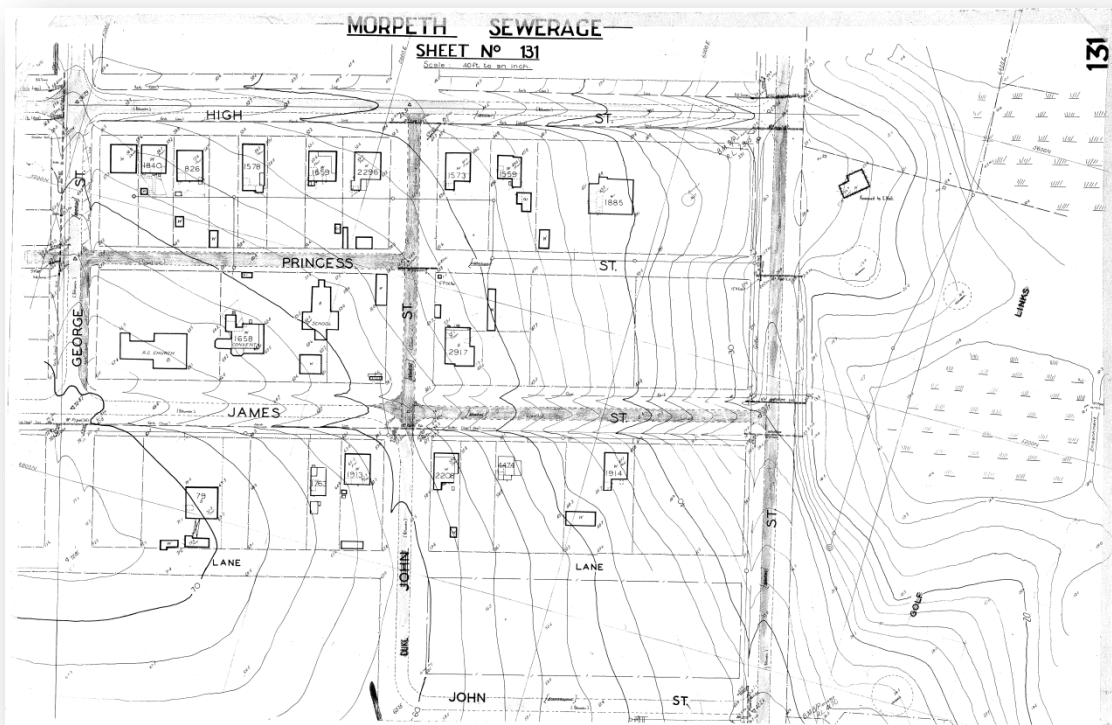


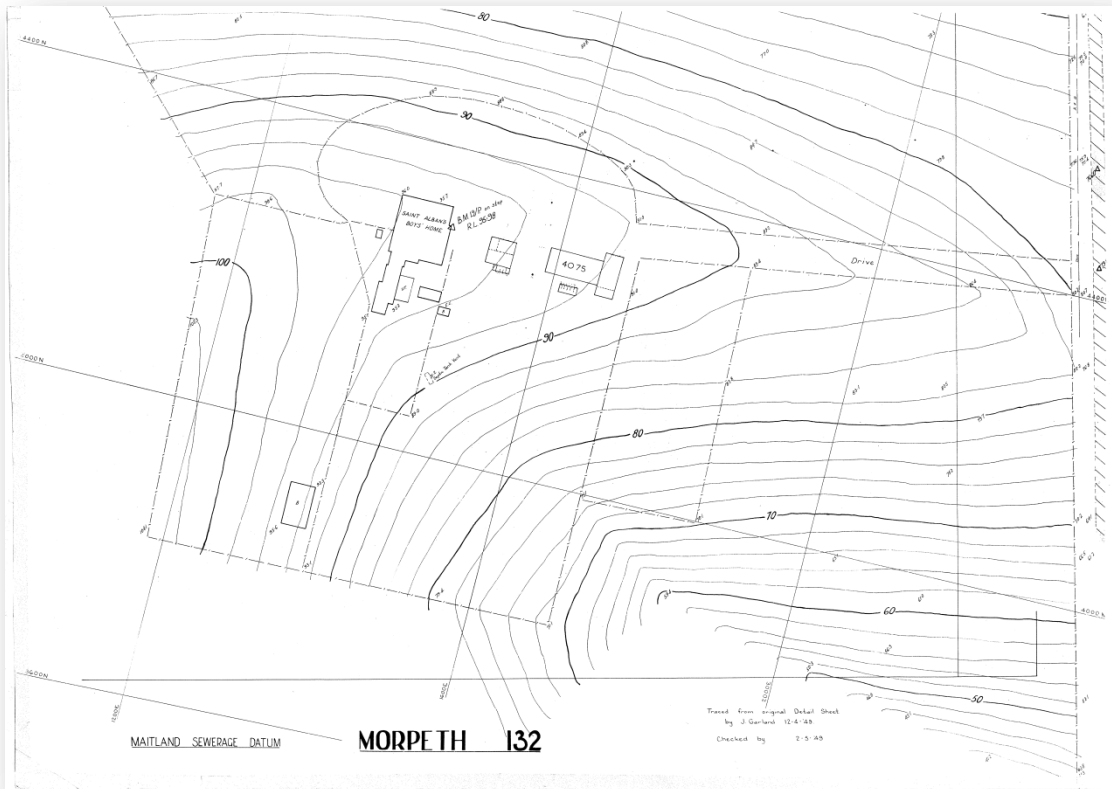
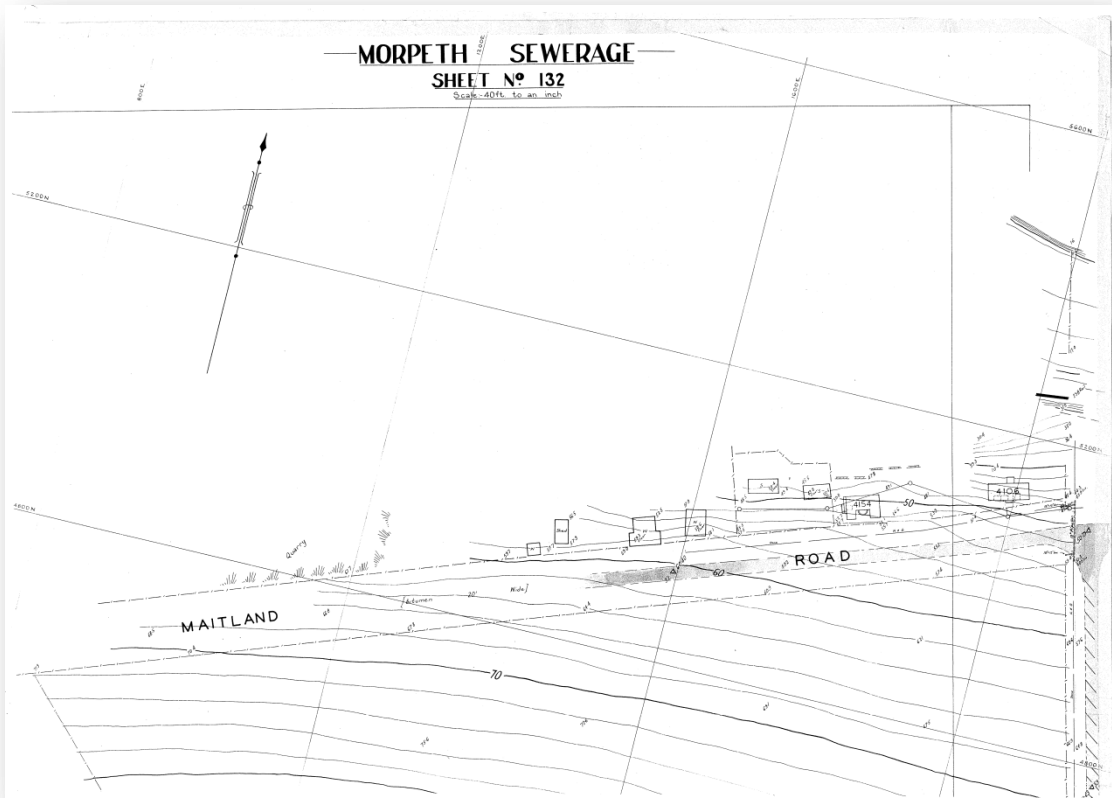












2011

Maitland Development Control Plan



Part F – Urban  
Release Areas



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# Part F – Urban Release Areas

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# F.1 – General Requirements

## 1. Preamble

The Maitland Urban Settlement Strategy (MUSS) provides the broad direction for future growth in the Maitland LGA. The MUSS identifies a number of investigation areas for residential expansion, as well as low density residential areas in more constrained localities and areas to support employment growth.

The MUSS also provides for a logical sequencing of development by categorising the investigation areas, based on locality and infrastructure provision. The process to develop investigation areas is identified in the MUSS as:

- Structure Plan (where necessary)
- Local Environmental Study and Plan
- Infrastructure Funding Plan
- Development controls and policies

Where the investigation area has a development yield that warrants the provision of significant infrastructure requirements and detailed strategic planning, the land is identified in the Maitland LEP 2011 as an Urban Release Area (URA). Not all investigation areas will be identified in the LEP in this fashion.

## 2. Application

This Part of the DCP applies to land identified as an Urban Release Area on the relevant map layer in the Maitland LEP 2011. Land identified as an URA triggers compliance with the requirements in Part 6 in the LEP.

## 3. Purpose

The purpose of this Part in the DCP is to give detailed guidance to people wishing to develop land identified as an urban release area in the Maitland LEP 2011. The series of chapters within this Part give more detailed provisions than that contained in the Maitland LEP 2011, and indicates certain specific objectives, requirements and standards for the various areas, not otherwise included in the broader DCP.

## 4. Relationship with Maitland LEP 2011

The purpose of Part 6 in the LEP is to ensure that development on land identified as an urban release area occurs in the logical and cost-effective manner. In this regard, Part 6 requires:

- (a) satisfactory arrangements to be made for public infrastructure before land in an urban release area can be subdivided for the proposed urban purpose, and

- (b) the preparation of a development control plan for any land so identified, before development consent can be granted for subdivision of the land.

## 5. Relationship with Other Plans

This Part of the DCP should be read in conjunction with Parts A, B, C and E of the Maitland DCP 2011 and any Council's policies, particularly the Manual for Engineering Standards (MOES).

## 6. Development Control Plan Requirements

Part 6 in the LEP requires a development control plan to include all of the following:

- (a) *a staging plan for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing,*
- (b) *an overall transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists,*
- (c) *an overall landscaping strategy for the protection and enhancement of riparian areas and remnant vegetation, including visually prominent locations, and detailed landscaping requirements for both the public and private domain,*
- (d) *a network of passive and active recreational areas,*
- (e) *stormwater and water quality management controls,*
- (f) *amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected,*
- (g) *detailed urban design controls for significant development sites,*
- (h) *measures to encourage higher density living around transport, open space and service nodes,*
- (i) *measures to accommodate and control appropriate neighbourhood commercial and retail uses,*
- (j) *suitably located public facilities and services, including provision for appropriate traffic management facilities and parking.*

Where an Urban Release Area is identified in the LEP for a development outcome other than residential (e.g. employment centre) Council may require additional matters to be included in the DCP.

### 6.1 Area Plans

An Area Plan may be prepared to further coordinate the detailed strategic planning of large or complex sites where site constraints, infrastructure provision, existing development and land ownership patterns result in the identification of distinct precincts.

More detailed Precinct Plans may then identify additional specific objectives and requirements for individual areas. Area Plans are not DCPs for the purpose of interpreting Part 6 in the LEP.

## 6.2 Precinct Plans

A Plan that is prepared to include the matters outlined in Part 6 of the LEP will be interpreted as a DCP for the purposes of Part 6. In most cases, this plan will be a Precinct Plan. Additional Precinct Plans or other plans that satisfy Part 6 of the LEP will be prepared as sequencing of development occurs in accordance with the MUSS. These Plans will be included in future amendments to the Maitland DCP 2011.

## 6.3 General Requirements

While each particular Area Plan has a specific design outcome that is tailored to its physical and man-made environment, a number of elements remain common to all the Urban Release Areas. These common elements are included in this Part as General Requirements and are required to be considered in the development of more detailed site-specific provisions and the preparation of Development Applications.



## F.2 - Residential Urban Release Areas

The **objectives** and **desired future outcomes** for the development of Urban Release Areas are for Council and the community to have clear direction and clarity as to the expected character and future neighbourhood amenity of these areas, and to ensure that all development respects the natural and man-made constraints of the land, that is designed to be sympathetic to the surrounding environment.

### 1. Desired Future Outcomes

All development should demonstrate consistency and consideration of the following principal desired future outcomes for Residential Urban Release Areas:

1. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel.
2. To foster a sense of community and strong local identity and sense of place in neighbourhoods.
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To ensure active street-land use interfaces, with building frontages to streets to improve personal safety through increased surveillance and activity.
5. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.
6. To facilitate appropriate mixed use development which is compatible with residential amenity, capable of adapting over time as the community changes, and which reflects community standards of health, safety and amenity.
7. To provide a variety of lot sizes and housing types to cater for the diverse housing needs of the community at a density that can ultimately support the provision of local services.
8. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
9. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
10. To ensure cost-effective and resource efficient development to promote affordable housing.

### 2. Design Considerations

The preparation of Area Plans and Precinct Plans (where required) for land within an Urban Release Area shall demonstrate compliance with the following general Objectives and Design Criteria. Precinct Plans may include additional objectives and design criteria for site-specific issues.

## 2.1 Traffic & Connectivity

### Objectives:

- 0.1 To ensure road design reflects the function of the road, the needs of the road user, with sound engineering practice and connectivity to existing and future development.
- 0.2 To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.
- 0.3 To provide a permeable and interconnected street structure that offers a choice of routes and distributes traffic load through a number of connection points.
- 0.4 To ensure that the design of the streets indicates their position and function in the street hierarchy, and reflects the uses within the street in their character and detail.
- 0.5 To minimise cut and fill.

### Design Criteria:

- D.1 The road pattern for each Area Plan and Precinct Plan should be developed generally in response to the topography, orientation of the land and site constraints to minimise environmental impacts (including acoustic impacts) and earthworks. Detailed survey and subdivision planning should be included in the road design for Precinct Plans.
- D.2 The road pattern for each Area Plan or Precinct Plan shall provide for logical connections with existing road networks.
- D.3 The road design should allow for passive surveillance and access to public open space from adjoining residences.
- D.4 Roads are to be designed to provide flood free access to proposed allotments.
- D.5 Footpaths and cyclepaths are to be provided within subdivisions that link the community, open space, schools and shops to existing and future residential development and constructed in accordance with Council's Manual of Engineering Standards. Shared off-road paths shall be located adjacent to stormwater control corridors, open space and the collector road verges (footway).
- D.6 Cycleways must be provided for in accordance with the Maitland Bike Plan 2005.
- D.7 No new future lot shall have direct vehicular access to any classified road (as defined in the Maitland LEP 2011).

### Submission Requirements:

Independent Traffic and Transport Studies are required with Development Applications for subdivision to determine the extent of road works, intersection upgrades and ancillary vehicular and pedestrian/cycleway infrastructure requirements generated by the development.

## 2.2 Subdivision Design

### Objectives:

- 0.1 To ensure that any proposed subdivision provides a safe and positive character, enhances accessibility, minimises visual impacts, complements the surrounding area, and promotes the principles of ecologically sustainable development.
- 0.2 To ensure that development respects the constraints of the site, and provides for a range of lot sizes and shapes appropriate to the community's housing needs.

### Design Criteria:

- D.1 A variety of lot sizes and shapes are to be provided to cater for the housing needs of the community, including opportunities for small lots, small lot housing and medium density in areas with high neighbourhood amenity. Allotment yields should be maximised in response to the constraints of the land.
- D.2 Subdivision design must have regard to minimising any adverse visual impacts of development when viewed from public roads and surrounding properties.
- D.3 Cut and fill should be minimised to fit topography and should absorb the slope on lots within the dwelling footprint rather than on the side boundaries.
- D.4 Subdivision layout and lot orientation should maximise privacy, private open space areas, solar access and energy efficiency. In this regard, streets should generally be aligned north/south and east/west, subject to constraints such as topography.
- D.5 Subdivision design and lot layout must ensure that any future residential housing will not be adversely affected by noise or vibration from traffic along adjoining classified roads, nor any other adjoining land uses.
- D.6 Subdivisions must include conveniently located open space areas that complement the broader city wide open space networks.
- D.7 Lots are to be designed to have frontage to streets or public open spaces to enhance dwelling presentation, passive surveillance and activation of the public domain.
- D.8 Subdivision designs should incorporate crime prevention strategies and principles to promote personal safety and casual surveillance such as those adopted within Crime Prevention through Environmental Design (CPTED).

### Submission Requirements:

Development applications for subdivision must include Staging Plans, an analysis and statement as to the intentions and philosophy of proposed layouts, lot sizes, shapes and likely development densities, so that residents have a clear understanding of the likely future neighbourhood character.

## 2.3 Building Form

### Objectives:

- 0.1 To ensure that development responds to the constraints of the land, and is integrated with existing development to provide attractive streetscapes and vistas, enhancing the overall character and neighbourhood amenity.
- 0.2 To provide for ecologically sustainable building design that is compatible with the scale and character of surrounding development, that maximises privacy, safety and security, and that respects the scenic and visual attributes of the area.

### Design Criteria:

- D.1 Housing design and scale must respond to the site constraints, so as to minimise acoustic impacts, external earthworks and prevent excessive cut/fill and structural retaining walls.
- D.2 Development is to respect the character and amenity of adjoining development, with any medium density housing or small lot housing to be provided on suitably orientated and sized allotments that have high amenity near facilities, open space and public transport.
- D.3 Building bulk is to be broken up by articulating external walls, providing openings, protrusions, verandahs, fenestration and various building materials, finishes and colours, so as to provide for visual relief and attractive streetscapes.
- D.4 Housing which is adjacent to a classified road should be appropriately designed so as to provide a high quality architectural appearance with visual interest, particularly by discouraging bulky buildings and blank walls.
- D.5 Car accommodation is to be sited and designed so as not to dominate the streetscape and frontage of allotments, thereby enhancing the areas visual appearance.
- D.6 Dwellings with a boundary to open space areas are to address the open space areas and provide low, visually permeable fencing.
- D.7 Fencing is to make a positive contribution to the visual appearance of development, and will be consistent with the requirements of the relevant Area or Precinct Plan. Fencing adjacent to the boundaries of any surrounding rural lands shall be unobtrusive, compatible with the rural character, and may include timber post and rail style.

### Submission Requirements:

Fencing details for all fencing that fronts rural or environmental land, a public space or road are required to be submitted to Council for approval with Development Applications for subdivision. Fencing adjacent to classified roads must be installed at the subdivision development stage to the satisfaction of Council.



## 2.4 Visual & Scenic Amenity

### Objectives:

To protect the scenic values of the landscape and environment, particularly by providing for attractive entrances to the City of Maitland, and encouraging development to be unobtrusive and sympathetic to the surrounding rural setting.

### Design Criteria:

- D.1 Where practicable, existing vegetation is to be maintained and enhanced (particularly along ridgelines, knolls and the slopes), so as to provide buffers and landscaped visual relief within subdivisions and housing development.
- D.2 Where available, subdivision and housing design should take advantage of significant and attractive views overlooking surrounding rural lands by orienting streets and locating public space to capture views.
- D.3 Development adjacent to rural land and flood prone land are to be suitably designed so as to be compatible with the existing rural character and setting.
- D.4 New landscaping shall be provided in visually prominent locations throughout subdivisions, particularly adjacent to any classified roads, including road reserves where practicable, to provide visual relief to the built elements.

### Submission Requirements:

Council may require that a Visual Impact Assessment be prepared to accompany Development Applications for subdivisions and other development that are likely to have a visual impact on the area, and to include proposed ameliorative measures.

## 2.5 Water Cycle Management & Sediment & Erosion Control

### Objectives:

- 0.1 To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
- 0.2 To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Design Criteria:

- D.1 Existing natural drainage lines should form part of a stormwater and runoff drainage management system utilising soil conservation measures (including detention basins and/or wetlands) to alleviate stormwater peaks and retain sediments and pollutants. Any water control structures installed on the site are to be used solely for the purpose of sedimentation and pollution control

purposes. No harvesting of water from any watercourse may occur without a licence issued by the appropriate State government authority.

- D.2 Stormwater controls must comply with the requirements of Council's Manual of Engineering Standards.

Submission Requirements:

- S.1 Developers will be required to produce a "Sediment and Erosion Control Plan" in accordance with the NSW Department of Housing guidelines Managing Urban Stormwater: Soils and Construction – the "Blue Book" as part of any development application for subdivision. The plan will also include practical measures for mitigating erosion and controlling sediment during construction. Other detailed plans may be required as a condition of any subdivision approval.
- S.2 A Stormwater Drainage Analysis, addressing the water quality and quantity (having regard to all contributing catchments and downstream water bodies), the 1% AEP Hunter River Flood Level (where relevant) and the 1% AEP storm event, is to be submitted with Development Applications for subdivision.

## **2.6 Landscaping, Streetscape & Open Space Areas**

Objectives:

To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

Design Criteria:

- D.1 Open space areas, footpaths and cyclepaths are to be suitably located and designed to provide linkages within the proposed area and to adjoining development in accordance with the relevant Section 94 Contributions Plan. Such areas are to have good surveillance and safety, particularly at night time, and are to be easily maintained and appropriately landscaped.
- D.2 Natural drainage lines and watercourses are to be protected and revegetated where appropriate with indigenous plant species to enhance the visual amenity, prevent soil erosion, and to protect the quality of receiving waters.
- D.3 Existing trees are to be retained wherever possible within and adjacent to road reserves, open space/drainage areas and along allotment boundaries.
- D.4 All open space is to be edged with a public street or public footpath, with dwellings addressing the space.
- D.5 Landscaping will be required on land adjacent to any classified road, so as to soften the visual impact of all built elements, creating attractive streetscapes when viewed by passing traffic and pedestrians.
- D.6 Street tree planting is to be carried out as part of subdivision design and road construction. Street trees are to be planted to provide a physical barrier to

traffic, to contribute to traffic calming, provide shade on footpaths and enhance the view of corridors in all subdivision designs and housing developments.

- D.7 Landscaping species are to be endemic to the area, appropriate to the setting (urban or open space) and local soil, climate and aspect.

Submission Requirements:

- S.1 Landscaping Plans are required to be submitted with Development Applications for subdivision for approval by Council. Landscape plans must include details for all streets and public spaces, identifying appropriate street tree species, fencing requirements, landscape elements, water bodies and street furniture.
- S.2 The Landscape Plans are to be accompanied by a Landscape Strategy that demonstrates how the proposed landscaping achieves the identified outcomes for the development.

## 2.7 Noise & Vibration

Objectives:

To ensure that future residential development is not adversely affected by any noise and vibration from incompatible land uses, including road and rail corridors and extractive industries within the Hunter River.

Design Criteria:

- D.1 Residential subdivision and development is to be located and designed so as to comply with the current standards and criteria for noise and vibration contained within relevant State Environmental Planning Policies, RTA and DECCW publications.
- D.2 Appropriate acoustic and vibration controls are to be provided by means of separating the source and receiver. Acoustic protection shall include building design techniques, landscaping and buffers which do not detract from the streetscape and visual appearance of the area. Applying building design techniques to new housing is strongly recommended.

Submission Requirements:

Council will require independent acoustic and vibration assessments to be submitted with relevant Precinct Plans and Development Applications that adjoin incompatible land uses.

## 2.8 Key Development Sites

Objectives:

To ensure that Key Development Sites are properly planned for within Urban Release Areas.

Design Criteria:

- D.1 Area Plans are to identify Key Development Sites required to service an Urban Release Area. Key Development Sites may include:
- Activity centres
  - Community facilities
  - Gateway sites
  - Exhibition villages
  - Medium or high density residential housing areas
  - Public transport interchange areas
  - Interface/transition areas with existing adjoining development

*Adjoining land zoned for environmental protection*

- D.2 Development or works within, or adjacent to land zoned for environmental protection is to ensure clearing of vegetation is minimised to the satisfaction of Council.
- D.3 Mechanisms are to be put in place with development to ensure the integrity and protection of established vegetation and riparian areas zoned for environmental protection.
- D.4 Development within land zoned for residential purposes must be designed and planned to ensure that any Asset Protection Zones (for bushfire control) do not extend into land zoned for environmental protection.

*Flood fringe rural allotments*

- D.5 Area Plans and Precinct Plans are to identify and suitably accommodate large rural allotments to enable the sustainable management of any rural flood fringe areas.
- D.6 A limited number of rural dwellings will be considered on flood free areas, with dwelling sites to be located at least 0.5 metres above the 1% AEP flood level, and access to such dwellings to be flood free with minimal fill or earthworks.
- D.7 Fencing of allotments shall be of post and wire style (or similar) so as to minimise the visual impacts of developments and not to impede the flow of floodwaters.

Submission Requirements:

- S.1 Precinct Plans are to include concept designs and site plans for any Key Development Sites identified in the Area Plan.



## F.3 - Aberglasslyn Urban Release Area

### DESCRIPTION

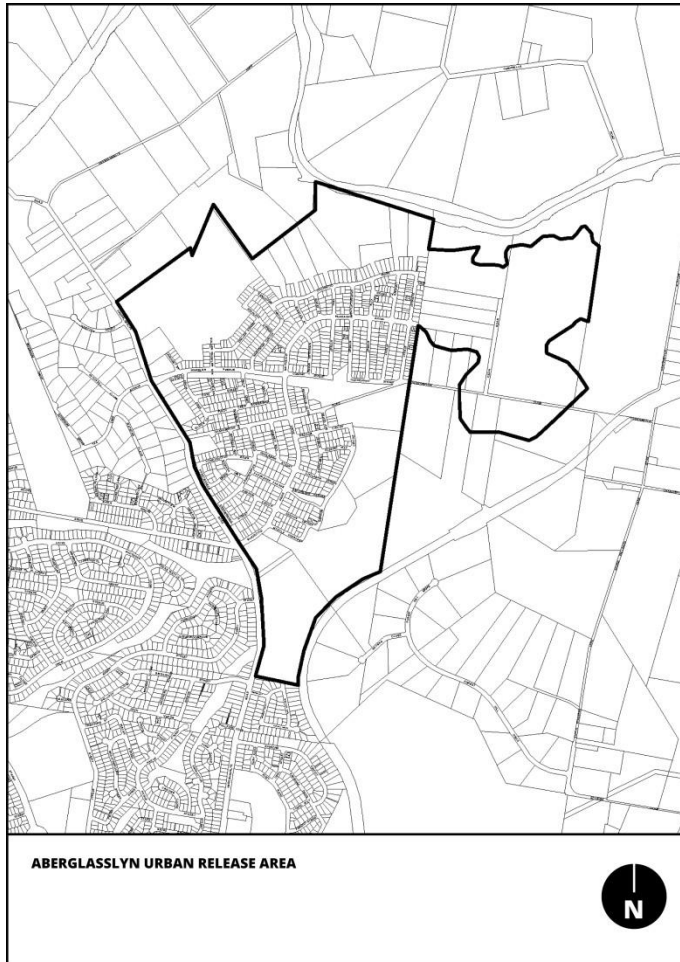


Figure 1: Aberglasslyn Urban Release Area.

The Aberglasslyn Urban Release Area identifies approximately 200 hectares of land to the north of the existing urban area of Rutherford. Access to the area is via Aberglasslyn and Oakhampton Roads from the New England Highway.

The majority of the land has traditionally been used for grazing. The area adjoins a number of important sites and land uses that required consideration in the strategic planning for this area. In particular, the proximity to Aberglasslyn House, a heritage item of State significance; the adjoining rail corridor, and impacts associated with extractive industries along the Hunter River dictated specific design outcomes for these areas.

Environmental issues associated with flooding and water quality from sub-catchments which flow directly

into the Hunter River and the Oakhampton Wetlands required specific development controls. Infrastructure provision (particularly the extension and augmentation of reticulated water and sewer) influences the orderly staging and sequencing of land. The potential for impacts on the road network leading into Central Maitland also requires consideration in the staging of development. Development of the East Precinct may require upgrading and safety improvements to the Oakhampton Road railway level crossing.

Development of this Urban Release Area is well progressed. Precinct Plans have already been prepared for the East, Central and South Precincts as part of this DCP and land has been rezoned on the corner of Aberglasslyn Road and McKeachie Drive for a neighbourhood centre.

## ABERGLASSLYN AREA PLAN

The Aberglasslyn Area Plan is comprised of precinct plans as shown in Figure 3.

The following provisions apply to the preparation of precincts plans for and staging of the Aberglasslyn Urban Release Area.



Figure 2: Aberglasslyn Area Plan.

# PRECINCT PLAN

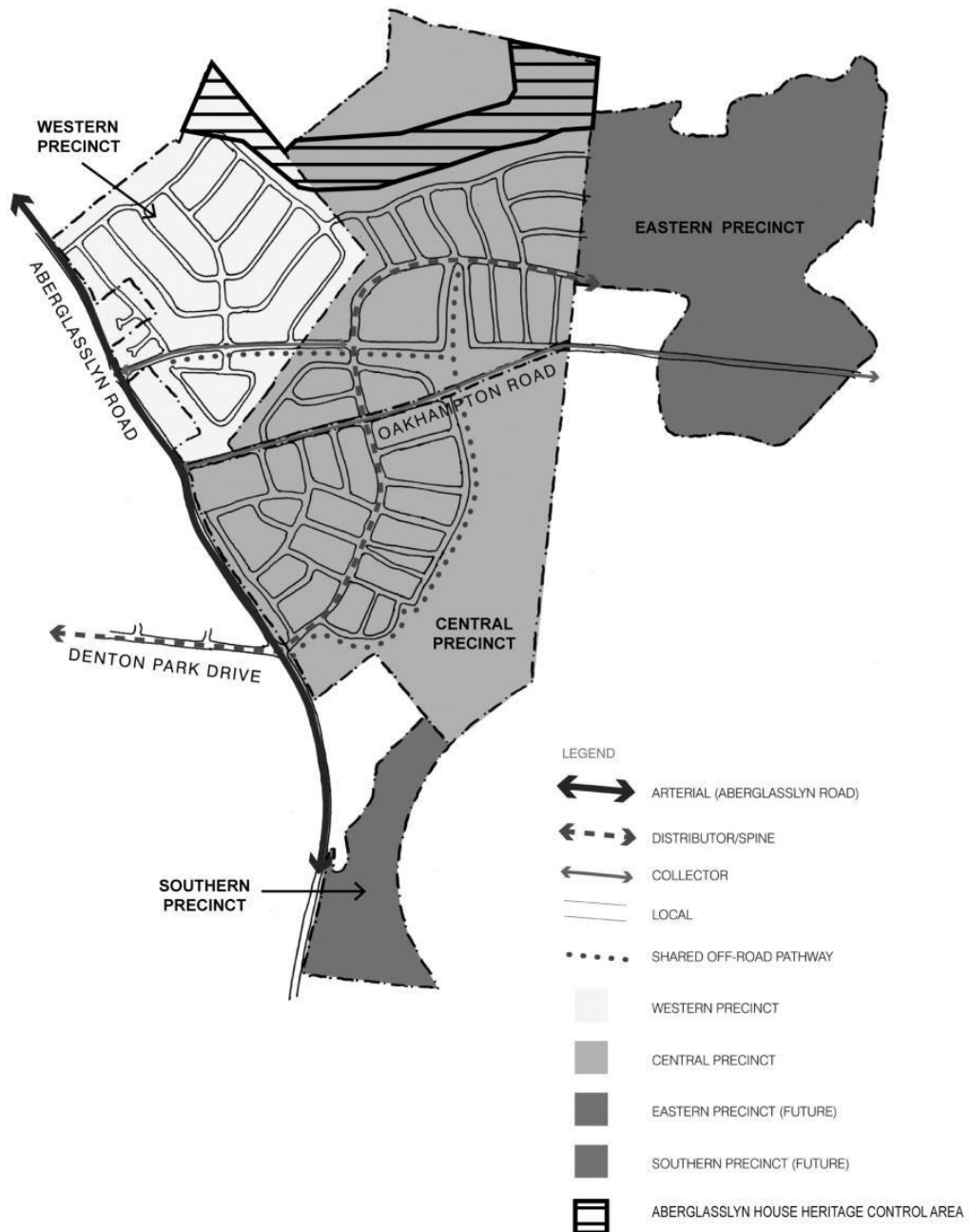


Figure 3: Aberglasslyn Precincts and Transport Movement Hierarchy.

## STAGING PLAN

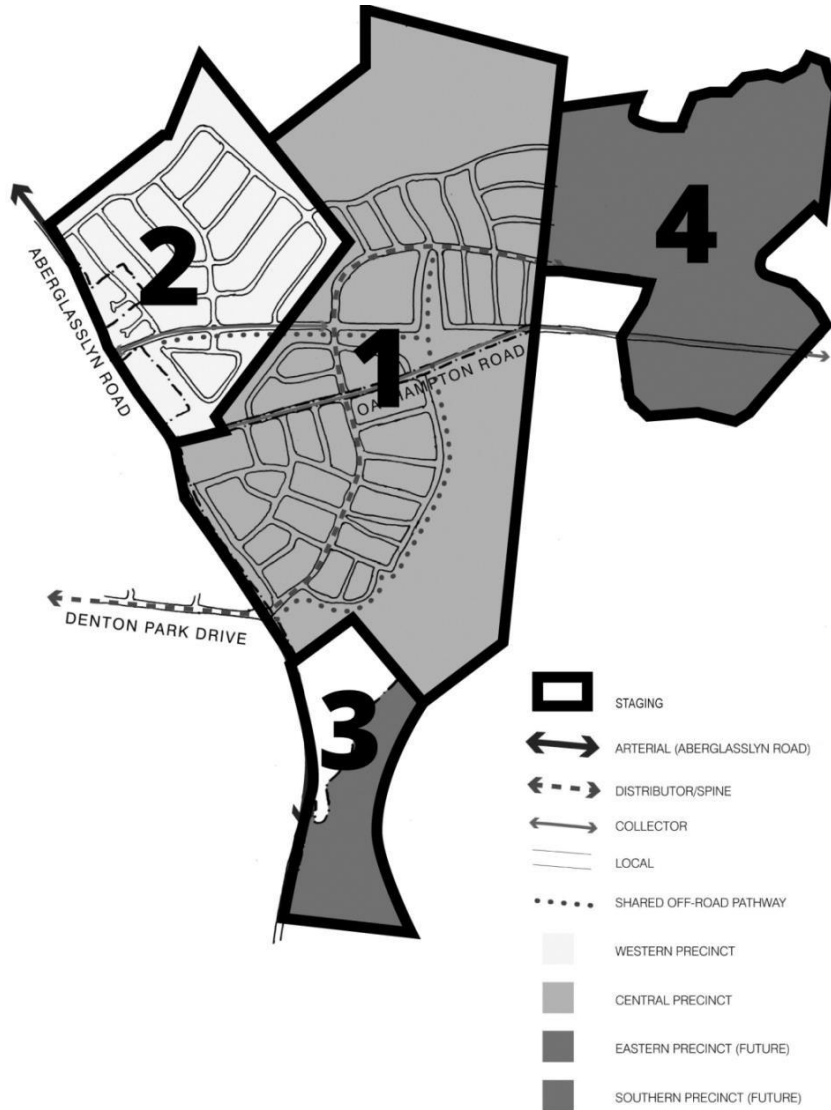


Figure 4: Aberglasslyn Urban Release Area - Staging Plan.

### 1. Development Requirements – General Provisions

#### 1.1 Staging Plan

Staging of development should generally accord with the Staging Plan as shown in Figure 4. The Staging Plan provides for the timely and efficient release of urban land and aligns with the precinct plans as shown in Figure 3.



### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 4.

## **1.2 Precinct Plans – General Provisions**

### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

### Development controls

1. Precinct Plans are prepared for each precinct identified in Figure 3.

## **1.3 Transport Movement Hierarchy**

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel.
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development Controls

1. Each precinct plan includes an overall transport movement hierarchy showing the major circulation routes and connections.
2. The overall movement hierarchy for each precinct is generally consistent with the road hierarchy and pathways identified in Figure 3.
3. The transport movement hierarchy includes off-road paths from the intersection of Denton Park Drive and Aberglasslyn Road running adjacent to the south eastern perimeter road, crossing Oakhampton Road and linking to the spine/distributor road in the northern section of the Central Precinct. The shared off-road path will also travel adjacent to the collector road within the

Western Precinct towards the Tea Tree Avenue and Aberglasslyn Road intersection.

#### **1.4 Overall Landscaping Strategy**

##### Objectives

1. To protect and enhance riparian areas and remnant vegetation, including visually prominent locations.
2. To protect scenic values and significant vegetation, particularly within, and adjacent to, the Aberglasslyn House Heritage Control Area, Aberglasslyn Road and Oakhampton Wetlands.
3. To provide detailed landscaping requirements for both the public and private domain.

##### Development controls

1. Landscaping strategies provided for each precinct considers landscaping elements identified in Figure 2.

#### **1.5 Passive and Active Recreation Areas**

##### Objectives

1. Neighbourhoods are conveniently located close to open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.

##### Development controls

1. The network of passive and active recreational areas is provided generally in accordance with Figure 2.

#### **1.6 Stormwater and Water quality Management Controls**

##### Objectives

1. Stormwater and water quality management controls shall protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment, including Oakhampton wetlands and the Hunter River.

##### Development controls

1. Each precinct plan includes stormwater and water quality management controls.
2. Stormwater and water quality management controls (trunk drainage) are provided generally in accordance with Figure 2.

## 1.7 Amelioration of Natural and Environmental Hazards

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

### Development controls

1. Precinct plans include measures to reduce impact for future residential development from activities generated by:
  - the railway
  - vehicular traffic, and
  - the adjoining extractive industries along the Hunter River, in accordance with relevant SEPP (Infrastructure) 2007 requirements, DECCW – EPA criteria and any relevant Australian Standards.
2. There are no requirements for bushfire.
3. Land within the flood planning area addresses clause 7.3 of the Maitland Local Environmental Plan 2011.
4. All development applications demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## 1.8 Key Development Sites

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Precinct Plans include detailed urban design controls (including traffic management requirements and car parking designs) for the following key development sites:
  - A potential school site
  - Aberglasslyn House Heritage Control Area
  - A potential neighbourhood centre
  - Any proposed exhibition villages.

## 1.9 Residential Densities

### Objectives

1. To encourage higher density living around transport, open space and service nodes.
2. To ensure cost-effective and resource efficient development to promote affordable housing.

Development controls

1. Precinct plans nominate areas where higher density living may be appropriate.
2. Residential densities are controlled by lot size in the Maitland Local Environmental Plan 2011.

**1.10 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

**1.11 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.



Figure 5: Aberglasslyn Heritage Control Area.



# ABERGLASSLYN - WEST PRECINCT

The following is the Precinct Plan provisions referred to in the general provisions above that applies to the West Precinct.

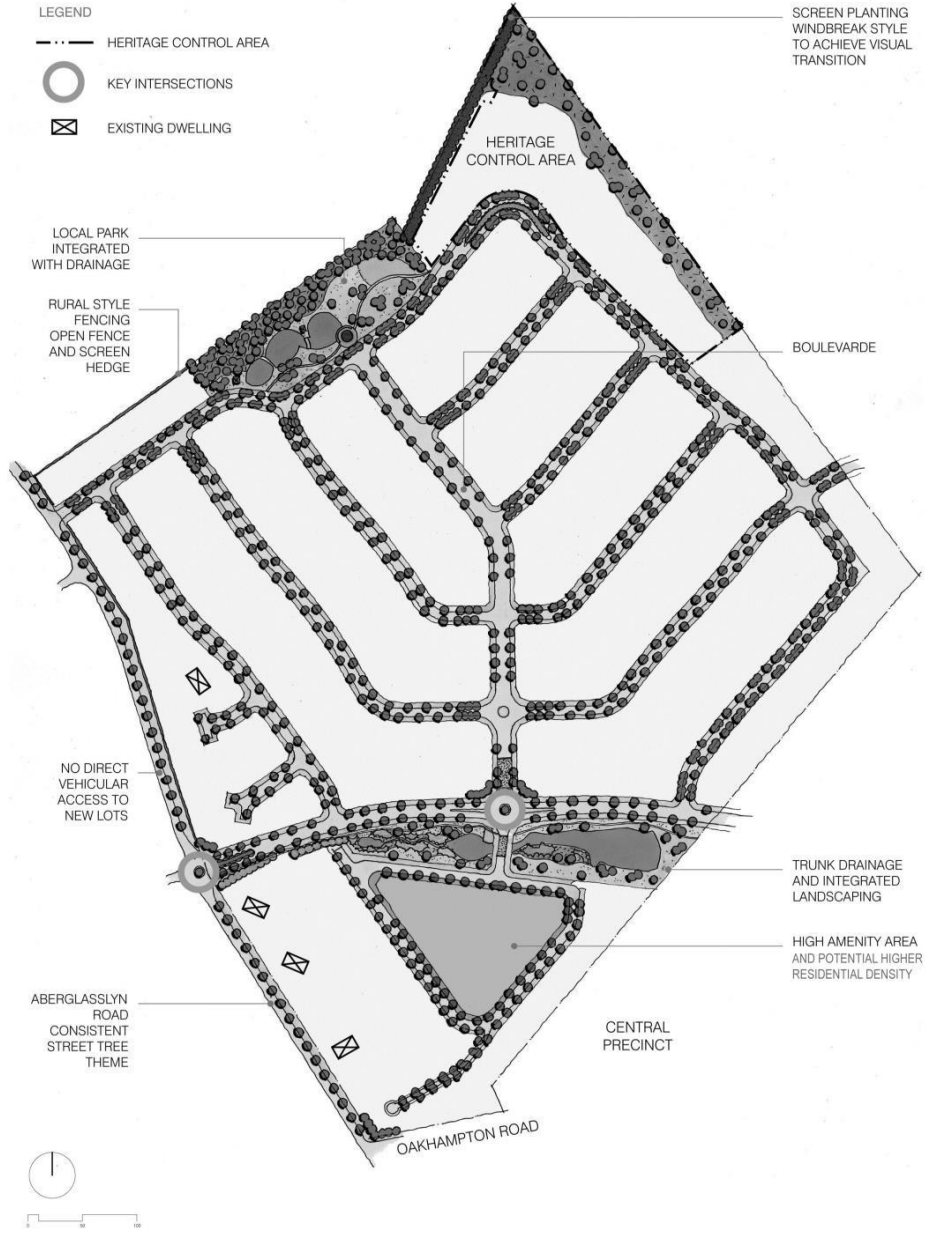


Figure 6: Aberglasslyn Urban Release Area - Western Precinct.

# 1. Development Requirements

## 1.1 Transport Movement Hierarchy

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development Controls

1. The principal access to the West Precinct will be via a roundabout controlled intersection on Aberglasslyn Road at the existing intersection of Tea Tree Avenue. This collector road will link to the main spine/distributor road through the Central Precinct and if required will accommodate a bus route.
2. Road layout and street design will be consistent with Figure 6 and following detailed survey and subdivision planning. Figure 7 shows typical cross sections for roads in this precinct.
3. No new future lot shall have direct vehicular access to Aberglasslyn Road, except where existing dwelling houses are to be redeveloped in a coordinated and orderly manner.
4. Residential development in the West Precinct shall not create new allotments with direct access to Aberglasslyn Road, but may create shared access ways to service a small number of additional dwellings adjacent to existing dwellings.

## 1.2 Overall Landscaping Strategy

### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.

### Development controls

1. A visual and scenic impact assessment is to accompany development applications for subdivisions and development that are likely to have a visual impact on the area, and may include proposed ameliorative measures to be incorporated within the development. Such assessments are to include any

- development of land containing part of the Heritage Control Area and/or adjacent to Aberglasslyn House.
2. Landscaping will be required on land adjacent to Aberglasslyn Road.
  3. Existing trees are to be retained wherever possible within riparian corridors, open space, within and adjacent to the Aberglasslyn Road reserve and along allotment boundaries.
  4. Re-vegetation proposals should be integrated with landscape plans and include the areas supporting Ecological Endangered Communities (EEC) of the Lower Hunter Spotted Gum/Iron Bark vegetation community.
  5. Landscaping of the private and public domain shall be generally consistent with the landscape concepts shown in Figure 6. Development Applications for subdivision will include detailed landscaping plans identifying appropriate street tree species, fencing treatments to Aberglasslyn Road and adjoining rural properties to the north-west and north-east, and landscape/threshold treatment of key intersections.
  6. Landscaping plans shall also show how open space areas and trunk drainage are to be located and landscaped.

### **1.3 Passive and Active Recreational Areas**

#### Objectives

1. Neighbourhoods are conveniently located close to open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

#### Development controls

1. Passive and active recreational space shall be provided generally in accordance with Figure 6.

### **1.4 Stormwater and Water Quality Management Controls**

#### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

#### Development controls

1. Stormwater management facilities are to be provided generally in accordance with Figure 6.
2. Stormwater facilities shall be based on the existing water bodies in accordance with Figure 6.
3. Reshaping and resizing of the waterbodies will be required to provide control of both water quantity (detention) and water quality, and are subject also to Council's Maitland Section 94 Contributions Plan (Citywide).

## **1.5 Amelioration of Natural and Environmental Hazards**

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

### Development controls

1. Filling of drainage lines is to be limited to that necessary to render flood free all residential land.
2. Retained drainage lines/water courses should be rehabilitated through comprehensive replanting with indigenous plant species.
3. Subdivision design and lot layout must identify and ensure that any future residential housing will not be adversely affected by noise or vibration from traffic, railways nor any other adjoining land uses including the extractive industry adjacent to the Hunter River.
4. Council will require that noise and vibration assessments be submitted with relevant Development Applications for subdivisions that adjoin incompatible land uses, including classified roads and rail corridors, and extractive industries within the Hunter River.
5. There are no requirements for bushfire.
6. Land within the flood planning area shall address clause 7.3 of the Maitland Local Environmental Plan 2011.
7. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## **1.6 Key Development Sites**

### *Aberglasslyn Heritage Control Area*

### Objectives

To ensure that development does not adversely impact upon the setting and context of Aberglasslyn House.



## Development Controls

1. A Statement of Heritage Impact is required for subdivision that relates to land containing the Heritage Conservation Area and adjacent to Aberglasslyn House.
2. Existing vegetation within the Heritage Conservation Area is to be retained so as to provide a visual screen and scenic backdrop for new development. Where practicable, new dwellings should be located adjacent to, or behind established trees.
3. Development of dwellings within the Heritage Conservation Area is to be consistent with Figure 8 and Figure 9.
4. Residential development in the Heritage Conservation Area shall include specific design and construction measures to comply with the requirements for the minimisation and management of any heritage impacts to Aberglasslyn House.
5. All development within the Heritage Conservation Area as shown in Figure 5 shall be limited in height to ensure that no structure or element thereof protrudes above the surface defined by the Structures Limitations Plan Figure 8.
6. Dwellings and ancillary buildings shall be a maximum of one storey (although they may include habitable rooms within a roof/attic space) and shall only be located within the Principal Structures Zone shown in Figure 9.
7. Fencing within the Heritage Conservation Area and particularly the Landscape Only Zone shown in Figure 9 shall be limited to traditional timber post and wire rural style fencing.
8. Ancillary residential buildings including single storey garages or carports (and single storey recreation/community buildings in the case of a specifically designed community title subdivision) may be considered within the Ancillary Structures Zone shown in Figure 9, subject to Council's consent.
9. A visual transition shall be created between the new Aberglasslyn urban development and the rural landscape setting of Aberglasslyn House by landscaping of the north-western boundary of the West Precinct to create a dense screen planting (windbreak) as a total visual screen for the length of the Heritage Conservation Area boundary. The screened plantings must be of a durable and suitable species to ensure sufficient height and spread is achieved. Such plantings shall be completed in the first stage of subdivision for the West Precinct, to ensure the plantings reach a satisfactory height and maturity prior to any new housing development being completed in that section of the Precinct.
10. Landscaping within the Landscape Only Zone as indicated in Figure 9 shall be limited to scattered plantings of endemic eucalypts consistent with the historical use of the site for grazing. No other structures or plantings are to be located within the Landscape Only Zone.
11. Any dwellings or outbuildings within the Heritage Conservation Area shall be constructed of external materials and finishes with darker colours and tones, so as to limit visibility, protecting the heritage qualities and rural setting of Aberglasslyn House. External building materials and finishes must also be non-reflective.
12. A suitable "Schedule of external colours and building materials" must be submitted to Council for approval with a Statement of Heritage Impact and Development Application for subdivision of land within the Heritage

Conservation Area. The relevant development consent will subsequently have a restriction as to user on the subdivision, to apply that Schedule on the land title.

### *Residue Rural Lands*

#### Objectives

1. To sustainably maintain and manage the residue rural lands.

#### Development controls

1. A limited number of large allotments will be considered.
2. Fencing of such allotments shall be of post and wire style (or similar), so as to minimise any visual impacts of development.

## **1.7 Residential Densities**

#### Objectives

1. To encourage higher density living around transport, open space and service nodes.
2. To ensure cost-effective and resource efficient development to promote affordable housing.

#### Development controls

1. Higher residential densities shall be encouraged in high amenity areas nominated in Figure 6.

## **1.8 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.9 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

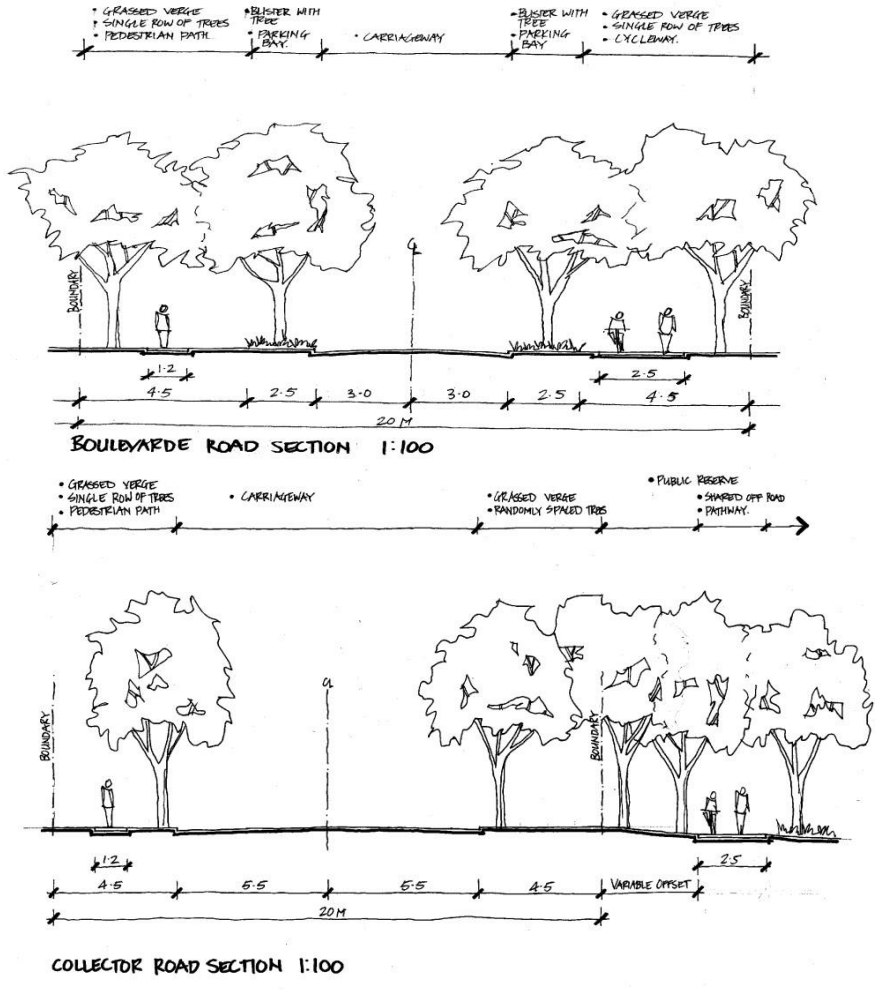
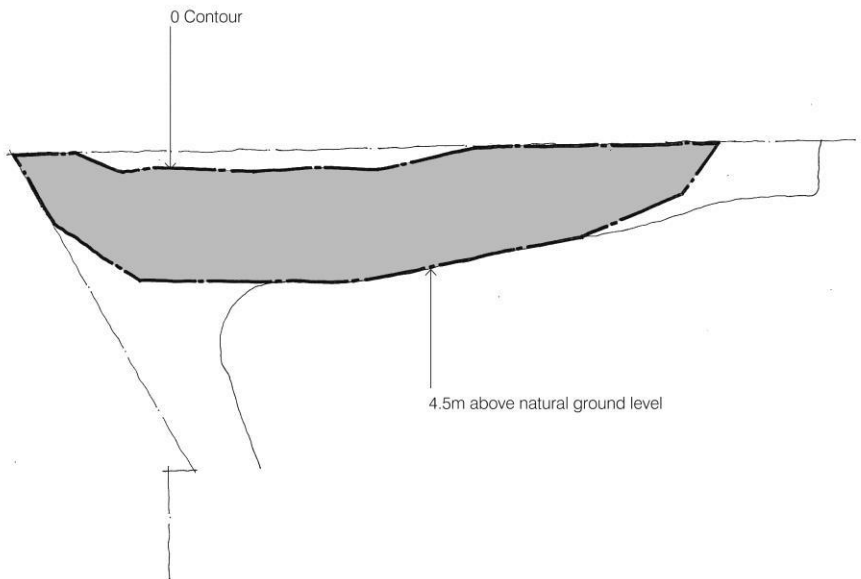


Figure 7: Western Precinct Road Sections.



Structures Limitations Plan 1:3000

Figure 8: West Precinct Structures Limitations Plan.

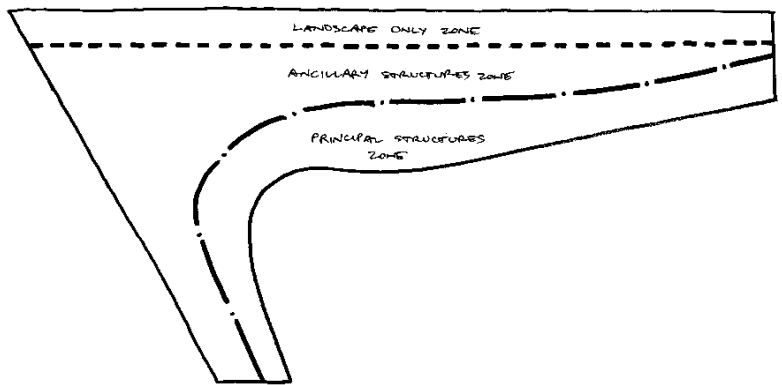


Figure 9: West Precinct Building Envelope.



# ABERGLASSLYN – CENTRAL PRECINCT

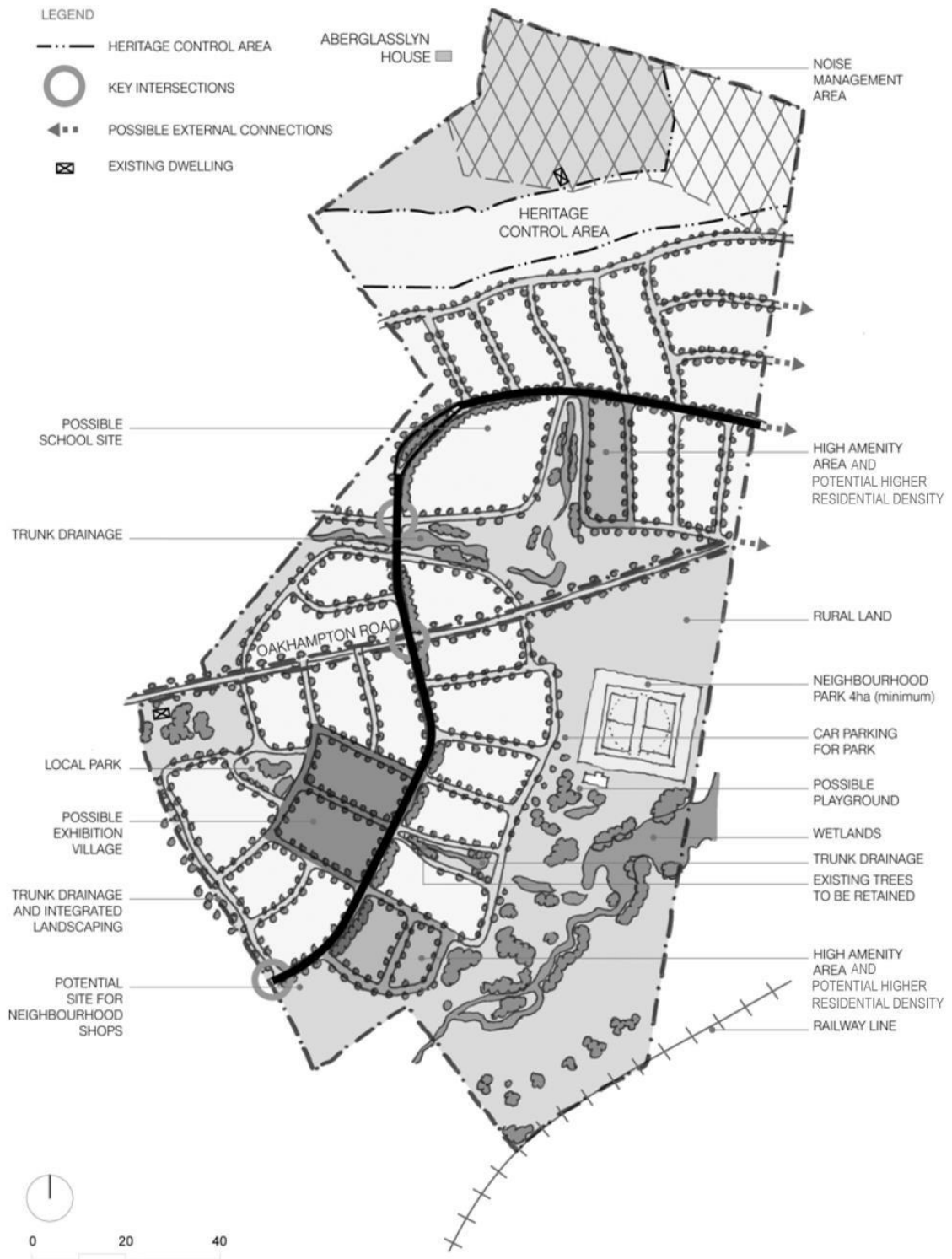


Figure 10: Aberglasslyn – Central Precinct and Road Hierarchy.

# 1. Development Requirements

## 1.1 Transport Movement Hierarchy

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development Controls

1. The principal access to the Central Precinct will be via a roundabout controlled intersection on Aberglasslyn Road at the existing intersection of Denton Park Drive.
2. This distributor/spine road will link to the northern parts of the site crossing Oakhampton Road. These road links will also accommodate a future bus route.
3. Road layout and street design will be consistent with Figure 10 and following detailed survey and subdivision planning.
4. No new future lot shall have direct vehicular access to Aberglasslyn Road, except where existing dwelling houses are to be redeveloped in a coordinated and orderly manner.
5. Residential development in the Central Precinct shall not create new allotments with direct access to Aberglasslyn Road.

## 1.2 Overall Landscaping Strategy

### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

## Development controls

1. A visual and scenic impact assessment is to accompany development applications for subdivisions and development that are likely to have a visual impact on the area, and may include proposed ameliorative measures to be incorporated within the development. Such assessments are to include any development of land containing part of the Heritage Control Area and/or adjacent to Aberglasslyn House.
2. Landscaping will be required on land adjacent to Aberglasslyn Road.
3. Existing trees are to be retained wherever possible within riparian corridors, open space, within and adjacent to the Aberglasslyn Road reserve and along allotment boundaries.
4. Street tree planting is to be carried out as part of the subdivision design and road construction. Street trees are to be planted to provide a physical barrier to traffic, to contribute to traffic calming, provide shade on footpaths and enhance the view of corridors in all subdivision designs and housing developments.
5. Retained drainage lines/watercourses are to be re-vegetated to enhance visual amenity, prevent soil erosion and help protect the quality of receiving waters. Re-vegetation proposals should be integrated with required landscape plans and include, where possible, those areas supporting Ecological Endangered Communities (EEC) of the Lower Hunter Spotted Gum/Iron Bark vegetation community.
6. Open space areas and pathways are to be suitably located and designed to provide linkages to surrounding development in accordance with the Maitland Section 94 Contributions Plan (Citywide) 2006. Such areas are to have good surveillance and safety, particularly at night time, and are to be easily maintained and appropriately landscaped.
7. Landscaping of the private and public domain shall be generally consistent with the landscape concepts shown in Figure 10.
8. Development Applications for subdivision will include detailed landscaping plans identifying the location of landscaping, street tree species and key intersection treatments, together with any fencing treatments to Aberglasslyn Road, Oakhampton Road, the spine/distributor road, and the adjoining rural properties.
9. The landscape plan shall also indicatively show how open space areas and trunk drainage are to be located and landscaped.

### **1.3 Passive and Active Recreational Areas**

#### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

### Development controls

1. Passive and active recreational space shall be provided generally in accordance with Figure 10.

## **1.4 Stormwater and Water Quality Management Controls**

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. Stormwater Management facilities and trunk drainage shall be provided generally in Figure 10 and in accordance with Council's Section 94 Contributions Plan.

## **1.5 Amelioration of Natural and Environmental Hazards**

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

### Development controls

1. Filling of drainage lines is to be limited to that necessary to render flood free all residential land.
2. Retained drainage lines/water courses should be rehabilitated through comprehensive replanting with indigenous plant species.
3. Subdivision design and lot layout must identify and ensure that any future residential housing will not be adversely affected by noise or vibration from traffic, railways nor any other adjoining land uses including the extractive industry adjacent to the Hunter River.
4. Council will require that noise and vibration assessments be submitted with relevant Development Applications for subdivisions that adjoin incompatible land uses, including classified roads and rail corridors, and extractive industries within the Hunter River.
5. There are no requirements for bushfire.
6. Land within the flood planning area shall address clause 7.3 of the Maitland Local Environmental Plan 2011.



7. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## 1.6 Key Development Sites

### *Aberglasslyn Heritage Control Area*

#### Objectives

1. To ensure that development does not adversely impact upon the setting and context of Aberglasslyn House.
2. To provide a visual screen and scenic backdrop for new development.

#### Development Controls

1. A Statement of Heritage Impact is required for subdivision that relates to land containing any part of the Heritage Conservation Area and adjacent to Aberglasslyn House.
2. Existing vegetation within the Heritage Conservation Area is to be retained.
3. Where practicable, new dwellings should be located adjacent to, or behind established trees.
4. All dwelling houses and outbuildings on land containing the Heritage Conservation Area shall be limited to single storey, and must be no greater than 5 metres in height when measured from the existing ground level to the highest point of the ridgeline.
5. Residential development in the Heritage Conservation Area shall include specific design and construction measures to comply with the requirements for the minimisation and management of any heritage impacts to Aberglasslyn House.
6. Development is not recommended in the Heritage Conservation Area. Where such development is unavoidable, development applications are to accurately demonstrate, using view shed analysis, suitable locations of building sites including special measures to comply with the requirements for the minimisation and management of any heritage impacts on Aberglasslyn House.
7. Any development consent for subdivision of land within the Heritage Conservation Area will have a restriction as to user on the subdivision restricting dwellings to within the building envelope.
8. The development of light weight structures, landscaping and/or orcharding within the Heritage Control Area will be considered where it can be demonstrated through siting, design, construction and treatment measures, the structure/improvements do not impact upon the visual amenity of Aberglasslyn House.
9. Any building located within the Heritage Conservation Area (wholly or partially) shall meet the following design requirements:
  - Structures shall be constructed using external materials and finishes of darker colours and tones, so as to limit visibility. Brick and painted surfaces are to be restricted to muted colours such as greys, browns, grey greens and fawns.

- Roofs shall be coloured dark slate grey, grey blue or grey green. No blue, red or orange range steel or tile roofing shall be permitted.
  - External building materials and finishes must be non-reflective.
10. Fencing within or adjacent to the Heritage Conservation Area shall be limited to traditional timber post and wire rural style fencing.
  11. Landscaping within the Heritage Conservation Area shall be limited to plantings of local endemic species, and should include random spacing of trees and shrubs in clusters for an informal effect.

### *Residue Rural Lands*

#### Objectives

1. To sustainably maintain and manage the residue rural lands and wetlands.
2. To minimise any visual impacts of development.

#### Development controls

1. A limited number of large allotments may be considered in this area.
2. Fencing of such allotments shall be of post and wire style (or similar).

## **1.7 Residential Densities**

#### Objectives

1. To encourage higher density living around transport, open space and service nodes.
2. To ensure cost-effective and resource efficient development to promote affordable housing.

#### Development controls

1. Higher residential densities shall be encouraged in high amenity areas nominated in Figure 10.

## **1.8 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.9 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

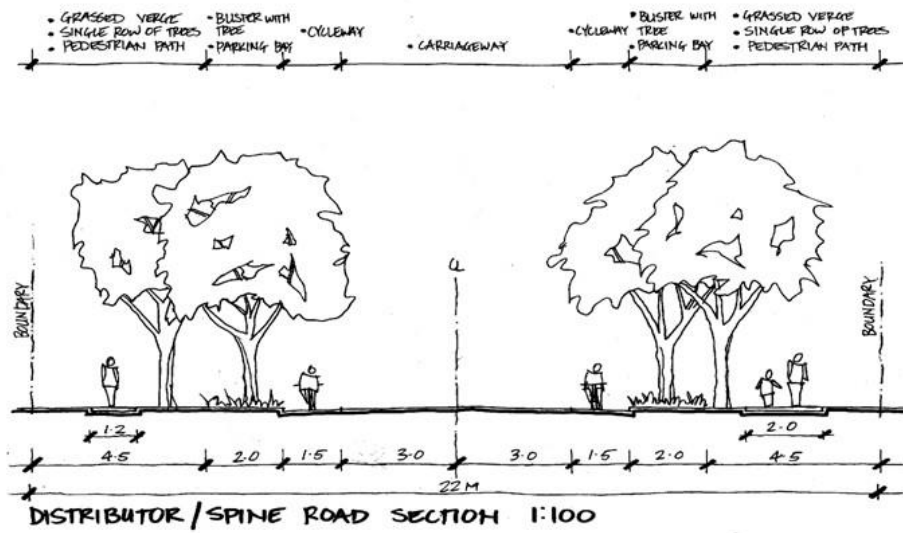


Figure 11: Central Precinct Distributor Spine Road Section.

# ABERGLASSLYN – SOUTH PRECINCT

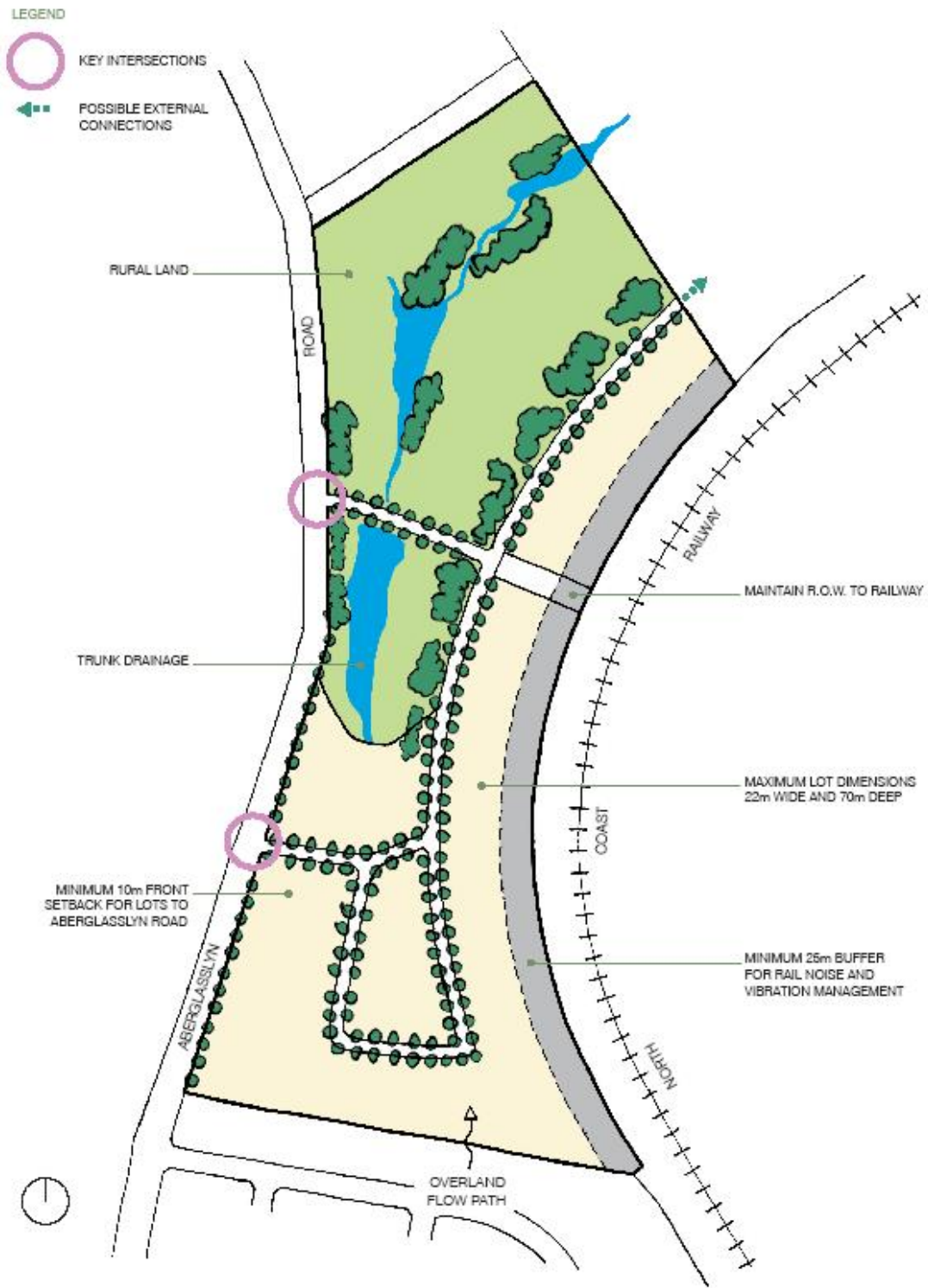


Figure 12: Aberglasslyn – South Precinct and Road Hierarchy.



# 1. Development Requirements

## 1.1 Transport Movement Hierarchy

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. Access to the South Precinct will be via two (2) new intersections on Aberglasslyn Road. The main internal road shall run generally north/south adjacent to the North Coast Railway line and form a link to the adjoining residential land to the north east of the site.
2. Road layout and street design will be consistent with the adopted South Precinct and Road Hierarchy Plan (Figure 12) and following detailed survey and subdivision planning.
3. Residential allotments in the South Precinct facing Aberglasslyn Road may have direct vehicular access to Aberglasslyn Road.

## 1.2 Overall Landscaping Strategy

### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.

### Development Controls

1. Landscaping will be required on land adjacent to Aberglasslyn Road.
2. Existing trees are to be retained wherever possible within riparian corridors, open space, within and adjacent to the Aberglasslyn Road reserve and along allotment boundaries.
3. Retained drainage lines/watercourses are to be re-vegetated to enhance visual amenity, prevent soil erosion and help protect the quality of receiving waters.
4. Landscaping of the private and public domain shall be generally consistent with the landscape concepts shown in Figure 12.
5. Development Applications for subdivision are to include detailed landscaping plans identifying appropriate street tree species, landscaping treatments to

Aberglasslyn Road, fencing/landscaping treatments within the acoustic buffer running parallel to the railway line and landscaping treatments of key intersections.

6. The landscape plan shall also indicatively show how open space areas and trunk drainage are to be located and landscaped.

### **1.3 Passive and Active Recreational Areas**

#### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

#### Development Controls

1. The network of passive and active recreational areas should be provided generally in accordance with Figure 2 and Figure 12.

### **1.4 Stormwater and Water Quality Management Controls**

#### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

#### Development controls

1. Stormwater Management facilities and trunk drainage are to be provided generally in accordance with Figure 12 and Council's Section 94 Contributions Plan (Citywide).

### **1.5 Amelioration of Natural and Environmental Hazards**

#### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

## Development controls

1. Filling of drainage lines is to be limited to that necessary to render flood free all residential land as indicated on Figure 12.
2. Retained drainage lines/water courses should be rehabilitated through comprehensive replanting with indigenous plant species.
3. Lot design of land adjoining the acoustic and vibration buffer shall be consistent with Figure 12.
4. Maximum lot dimensions for the affected area are 22 metres wide and 70 metres deep.
5. Stage 1 of development of the South Precinct shall include the construction of a 3- metre high solid acoustic barrier along the boundary between the railway line and residential allotments.
6. Details of the acoustic barrier are to be provided to, and approved by, Council prior to the construction of the subdivision.
7. Residential development of allotments adjacent to the railway line and containing the noise and vibration management area shall include specific design and construction measures to a level to satisfy AS 3671-1989 Category 3 construction. A separate acoustic engineers report is required to certify that each dwelling, at the design stage, can meet the requirements of *State Environmental Planning Policy (Infrastructure) 2007*.
8. A minimum front setback of 10 metres shall apply to any residential building constructed on land facing Aberglasslyn Road. Design and construction measures shall be to a level to satisfy AS 3671-1989 Category 3 construction. A separate acoustic engineers report is required to certify each dwelling, at the design stage, can attenuate 27 dB(A) at the façade of the dwelling.
9. Subdivision and lot layout must identify and ensure that any future residential housing will not be adversely affected by noise or vibration from traffic, railways or any other adjoining land uses including extractive industries along the Hunter River.
10. Council will require that noise and vibration assessments be submitted with relevant Development Applications for subdivisions that adjoin incompatible land uses, including classified roads and rail corridors, and extractive industries within the Hunter River.
11. Development on bushfire prone land shall be assessed and designed in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.
12. Land within the flood planning area shall address clause 7.3 of the Maitland Local Environmental Plan 2011.
13. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## **1.6 Key Development Sites**

### *Residue Rural Lands*

#### Objectives

1. To sustainably maintain and manage the residue rural lands and wetlands.

#### Development controls

1. A limited number of large allotments will be considered so as Community title subdivision may be appropriate in this regard.
2. Fencing of such allotments shall be of post and wire style (or similar), so as to minimise any visual impacts of development.

### **1.7 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### **1.8 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.9 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.



## F.4 - Anambah Employment Area

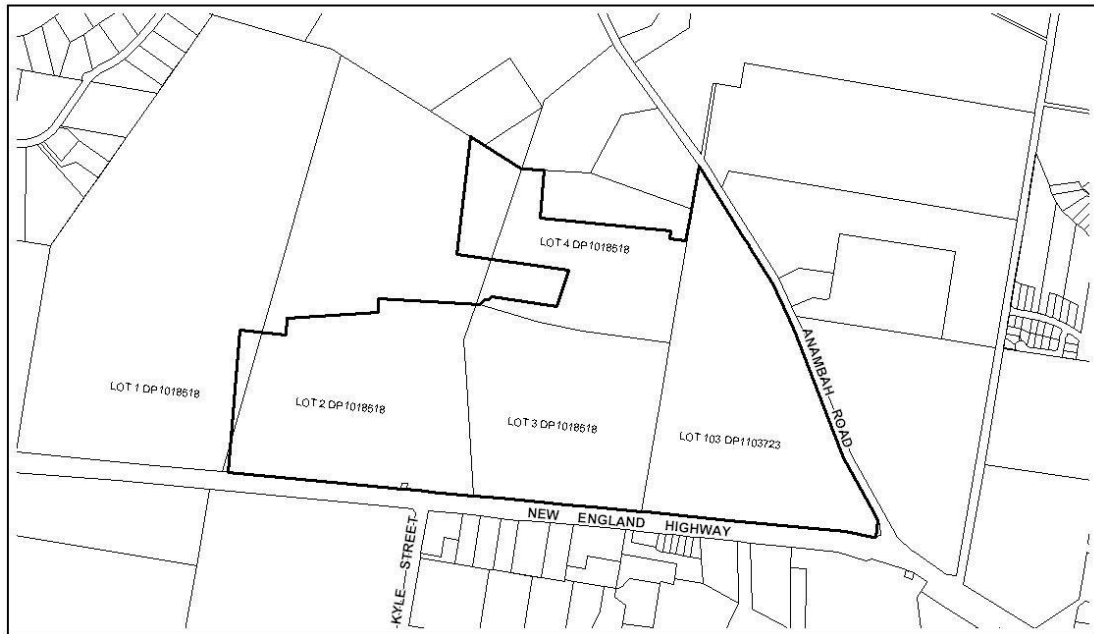


Figure 13: Anambah Employment Area

### DESCRIPTION

The Anambah Employment Area lies at the northern side of the New England Highway at its junction with Anambah Road as identified in Figure 13.

The land use zones over the site provide for a mix of industrial and business development. Co- location of complementary businesses to service industry, such as research and technology based businesses should result in a high amenity centre.

The site also includes the introduction of an environmental management area which will require ongoing maintenance and management to protect identified threatened species and endangered ecological communities.

The proximity of the site to the Rutherford Aerodrome necessitates specific height and noise control criteria. Specific landscape and visual amenity controls are also included to ensure that the appearance of the development when viewed from both the New England Highway and Anambah Road is satisfactory.

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 14.

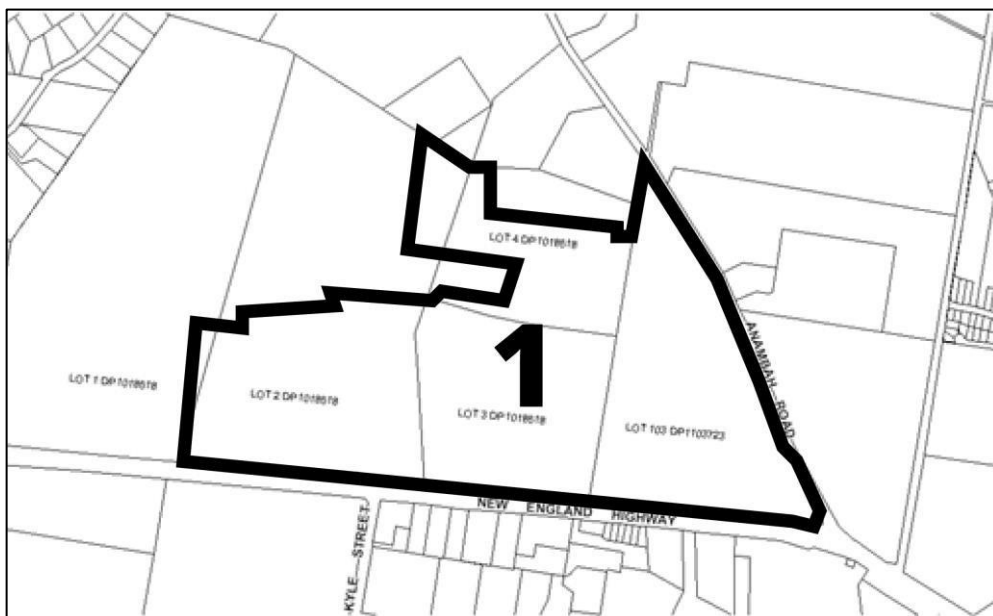


Figure 14: Anambah Employment Area - Staging Plan.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.

#### Development controls

1. The major circulation route and intersections with the New England Highway and Anambah Road should be in accordance with Figure 15.
2. The major circulation route is to make provision for a public bus service, on-road cyclists and a pedestrian footpath.

3. No new future lot shall have direct vehicular access to Anambah Road or the New England Highway, except where the development satisfies the requirements of clause 101 in State Environmental Planning Policy (Infrastructure) 2007.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
4. To protect significant vegetation and habitat adjoining the Anambah Employment Area, especially for Squirrel Gliders, Grey-Crowned Babblers and threatened bat species.

#### Development controls

1. Provision shall be made for a 10-metre wide landscaped area adjoining the New England Highway and Anambah Road.
2. The landscape strip shall be incorporated into the development lots.
3. A landscaping strategy is to be submitted with the first development application to subdivide land adjoining the New England Highway or Anambah Road, to identify a theme for the landscaping strips that will create a pleasant and consistent visual appearance for the Anambah Employment Area.
4. The landscaping strategy is to include information about the fencing treatment for land fronting the New England Highway and Anambah Road.
5. All subsequent development applications are to be consistent with the approved landscaping strategy.
6. Native and low maintenance plant species are to be used in the landscaping and must be installed as part of the subdivision works.
7. A vegetation management plan is to be submitted with any development application on land in Zone E3 Environmental Management that intends to clear vegetation.
8. Development on land in Zone E3 Environmental Management must be consistent with the recommendations and objectives of the vegetation management plan.
9. A vegetation management plan is to be provide details including timing of clearing and re-vegetation processes, area and type of vegetation removal, re-vegetation, and program for monitoring of vegetation management to achieve:
  - No net loss of vegetation (on an area basis) for the development of the Anambah Employment Area,
  - Year round flowering resources for Squirrel Gliders,
  - Habitat for Grey-crowned Babblers,

- Bat nesting boxes and salvaged hollows,
- Use of endemic plant species.

#### 1.4 Passive and Active Areas

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### 1.5 Stormwater and Water Quality Management

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.
4. To protect the function of nutrient control ponds and ensure consistency for stormwater management in the Anambah Employment Area.

##### Development controls

1. The individual lot stormwater management system is to be designed to include on-site stormwater detention in accordance with Council's Manual of Engineering Standards, as well as "at source" sediment, nutrient, oil and grease removal.

#### 1.6 Amelioration of Natural and Environmental Hazards

##### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure buildings, structures and uses are compatible with the ongoing operation of the adjoining aircraft facility.

##### Development controls

1. Any building, structure or landscaping should not be erected or installed to a height above the obstacle height limitation surface for the aircraft facility.
2. Proposed uses and building design must give consideration to exposure to aircraft noise for land within the hatched area on Figure 16.
3. Buildings within this area are to be designed in accordance with the requirements of Australian Standard *AS021 – Acoustics – Aircraft Noise Intrusion – Building Siting and Design*.



4. Land located within the obstacle height limitation zone up to the 400m chainage line, within the eastern take-off/approach path to Runway 08/26 (as indicated on Figure 17):
  - Height of Buildings is a maximum of 12.0 metres.
5. Land located within the obstacle height limitation zone beyond the 400m chainage line, within the eastern take-off/approach path to Runway 08/26 (as indicated on Figure 17):
  - Height of Buildings is a maximum of 16.0 metres. Assessment of any development application in this area will include consideration of the overall proposal inclusive of lot area, height, form, site coverage, setbacks and landscaping, having particular regard to appearance as viewed from the New England Highway and Anambah Road.
6. Land located outside of the obstacle height limitation zone:
  - No Height of Building limitation. Assessment of any development application in this area will include consideration of the overall proposal inclusive of lot area, height, form, site coverage, setbacks and landscaping, having particular regard to appearance as viewed from the New England Highway and Anambah Road.
7. Land within the flood planning area shall address clause 7.3 of the Maitland Local Environmental Plan 2011.
8. All development applications shall demonstrate compliance with the requirements of SEPP 55 - Remediation of Land.
9. Development on bushfire prone land shall be assessed and designed in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.

## 1.7 Key Development Sites

### *Presentation to New England Highway and Anambah Road*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.
2. To encourage development that contributes to a good quality streetscape, when viewed from the New England Highway or Anambah Road.
3. To provide for industrial buildings and development which is both functional to meet the user's needs, as well as having a good quality external appearance when viewed from public places.

#### Development controls

1. All proposed outdoor storage or display areas are to be identified in a development application, including details of the type of materials or goods to be stored or displayed.
2. All outdoor storage or display areas are to be screened from the New England Highway and Anambah Road, unless it can be demonstrated that it will have a tidy and attractive appearance.

3. Buildings should be constructed using brick, masonry, pre-coloured metal cladding, appropriately finished 'tilt-slab' concrete or a combination of these materials.
4. Roofs are to be constructed with low reflective materials.
5. Building facades are to be predominantly muted colours such as stone and other pale brown shades, greys, greens, terracotta and off-white. Bright colours such as red, yellow, blue, white, purple, pink and orange will only be permitted where they form minor elements of the façade and represent corporate identification or highlights.
6. Use of multiple zones of complementary colour to break up vertical height and overall mass are encouraged.
7. Major walls – where building facades are visible from a public road and include walls greater than 30 metres in length or 6.5 metres in height, variations in colour, materials or landscaping are to be used to provide interest.
8. External plant and equipment – any external plant and equipment (including reuse storage and other visually obtrusive activities) is to be screened from public roads. Any roof mounted equipment and structures that protrude above the roof line are to be integrated into the building design or screened.
9. Where sited forward of the building frontage to a public road, the fencing is to be a black coated or painted metal chain-wire fence.
10. Solid boundary fencing materials will only be permitted forward of the building frontage to a public road where they will be screened by landscaping or are demonstrated to be of quality and varied materials that do not detract from the streetscape.
11. The size and placement of advertising structures are to be consistent with State Environmental Planning Policy No 64 – Advertising and Signage and the relevant provisions of this DCP.
12. Only one pylon sign or pole sign is permitted per lot.
13. No advertising signs are to be installed in the landscaping strip adjoining the New England Highway and Anambah Road.

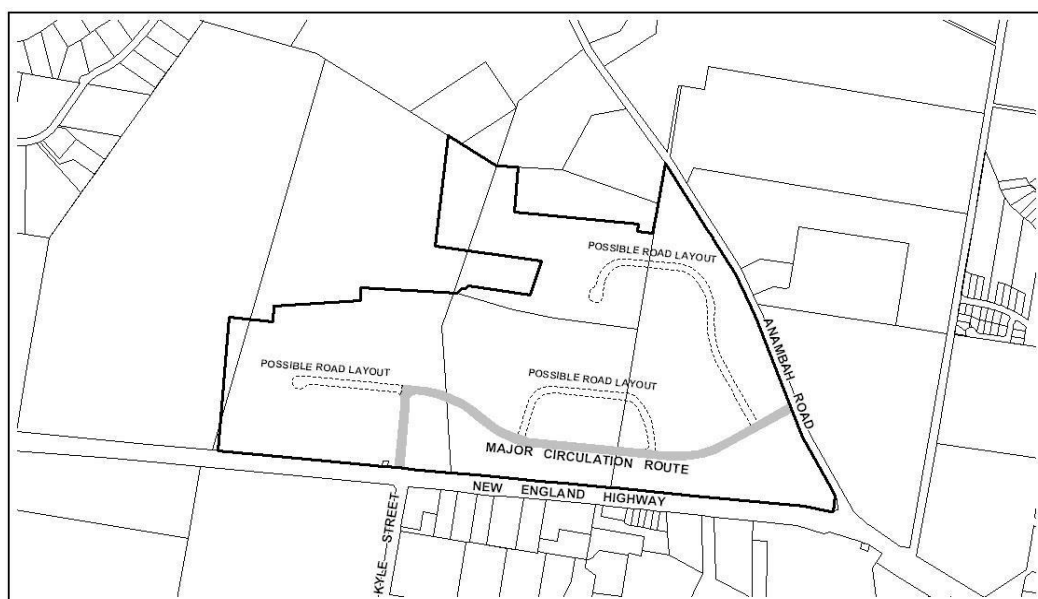


Figure 15: Major Circulation Routes and Intersections.

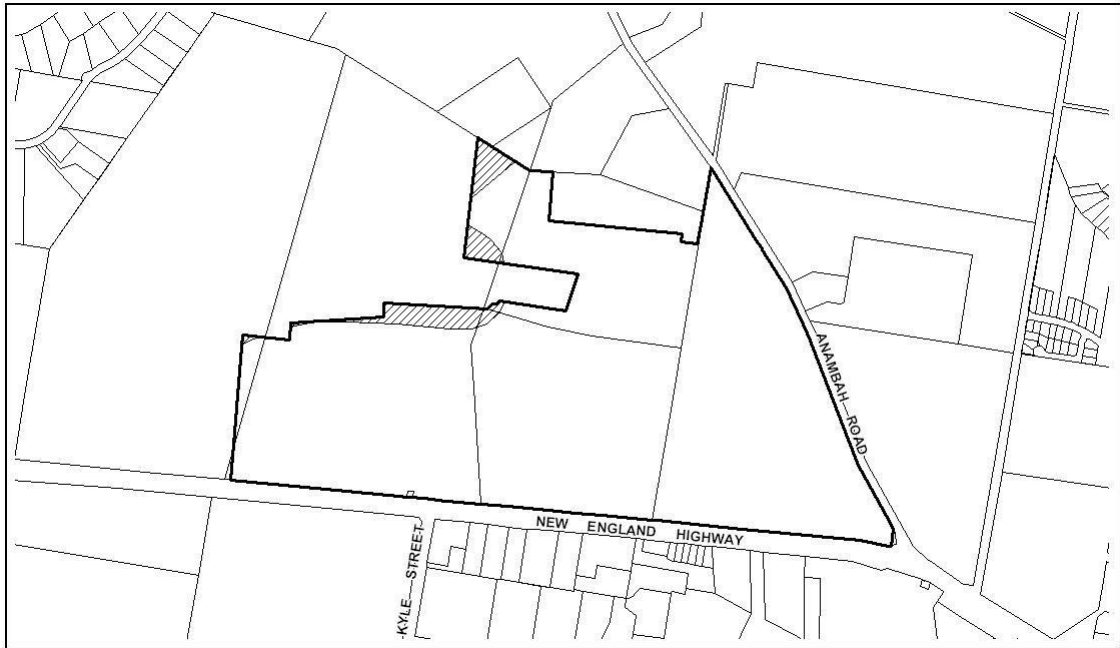


Figure 16: Land potentially affected by aircraft noise (ANEC-20).

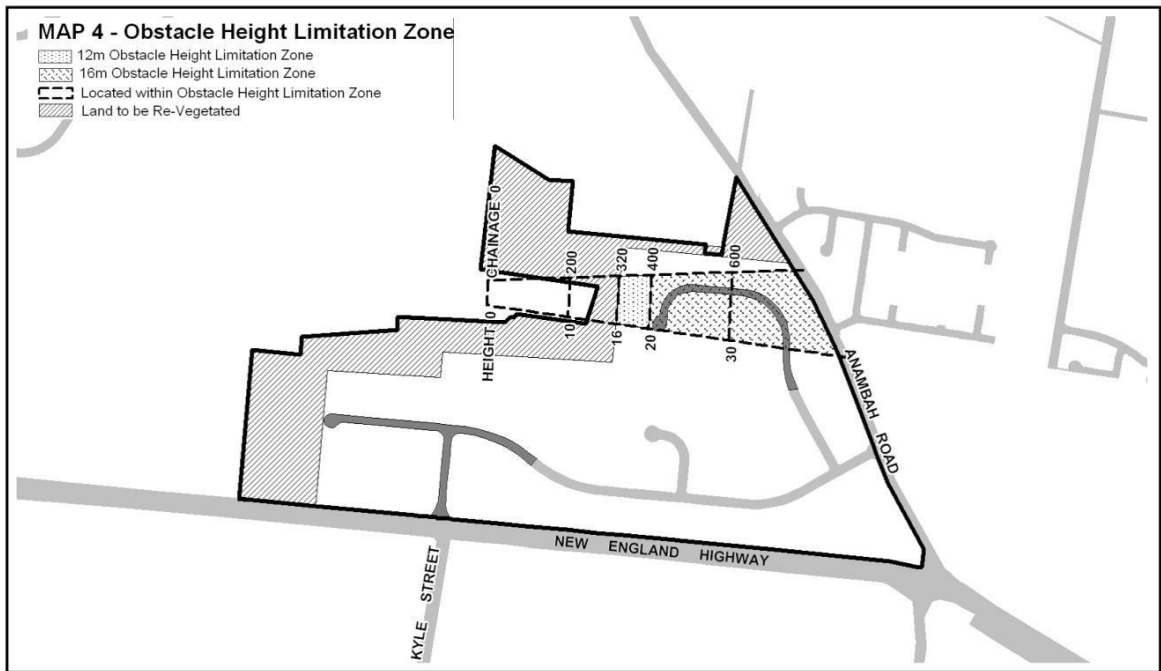


Figure 17: Obstacle Height Limitation Zone.

### 1.8 Residential Densities

There are no specific requirements as B5 Business Development zone does not permit residential uses.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.



## F.5 - Gillieston Heights Urban Release Area

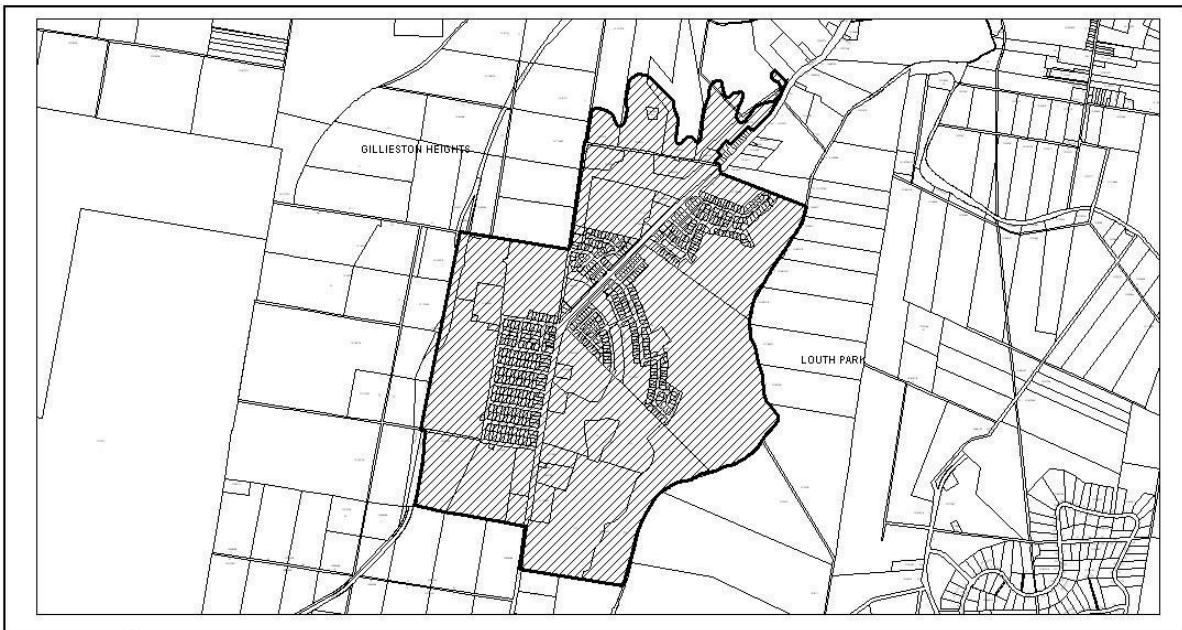


Figure 18: Gillieston Heights Urban Release Area.

### DESCRIPTION

The desired future character for the Gillieston Heights Urban Release Area comprises a mix of residential housing styles and types, supported by a central neighbourhood centre, a potential school site, open space and areas of existing vegetation, which provide a backdrop to the future development.

On the western side of the release area, a roadside buffer for landscaping and acoustic separation will run adjacent to the Cessnock Road frontage, effectively denying direct vehicular access to the new development, except via new traffic controlled intersections. The eastern side of the release area is generally defined by an escarpment lined in parts with existing bushland, which must be retained to provide a visual backdrop to new development. Any roads and development along this eastern edge must respond to the topographic constraints of the land, so as to minimise cut and filling.

The residential areas are to be developed into a series of neighbourhoods defined by the natural landform, shared pathways and roads. Streets will be designed for safety, connectivity and to provide opportunities for establishing new plantings and attractive streetscapes. Any school, neighbourhood shops and parks will be located adjacent to bus routes and provide a focal point for community activity.

Riparian areas adjacent to existing water courses will be retained and enhanced as part of the water cycle management of the release area and existing dams on site will be used wherever practicable as water quality devices treating water prior to discharge into receiving waterways.

Development within this Urban Release Area is well progressed. The overall Area Plan prepared for this Urban Release Area comprises precinct plans for the East and West precinct. These precincts are bisected by Cessnock Road.

## PRECINCT PLAN

The Gillieston Heights Area Plan is comprised of precincts as shown in Figure 19.

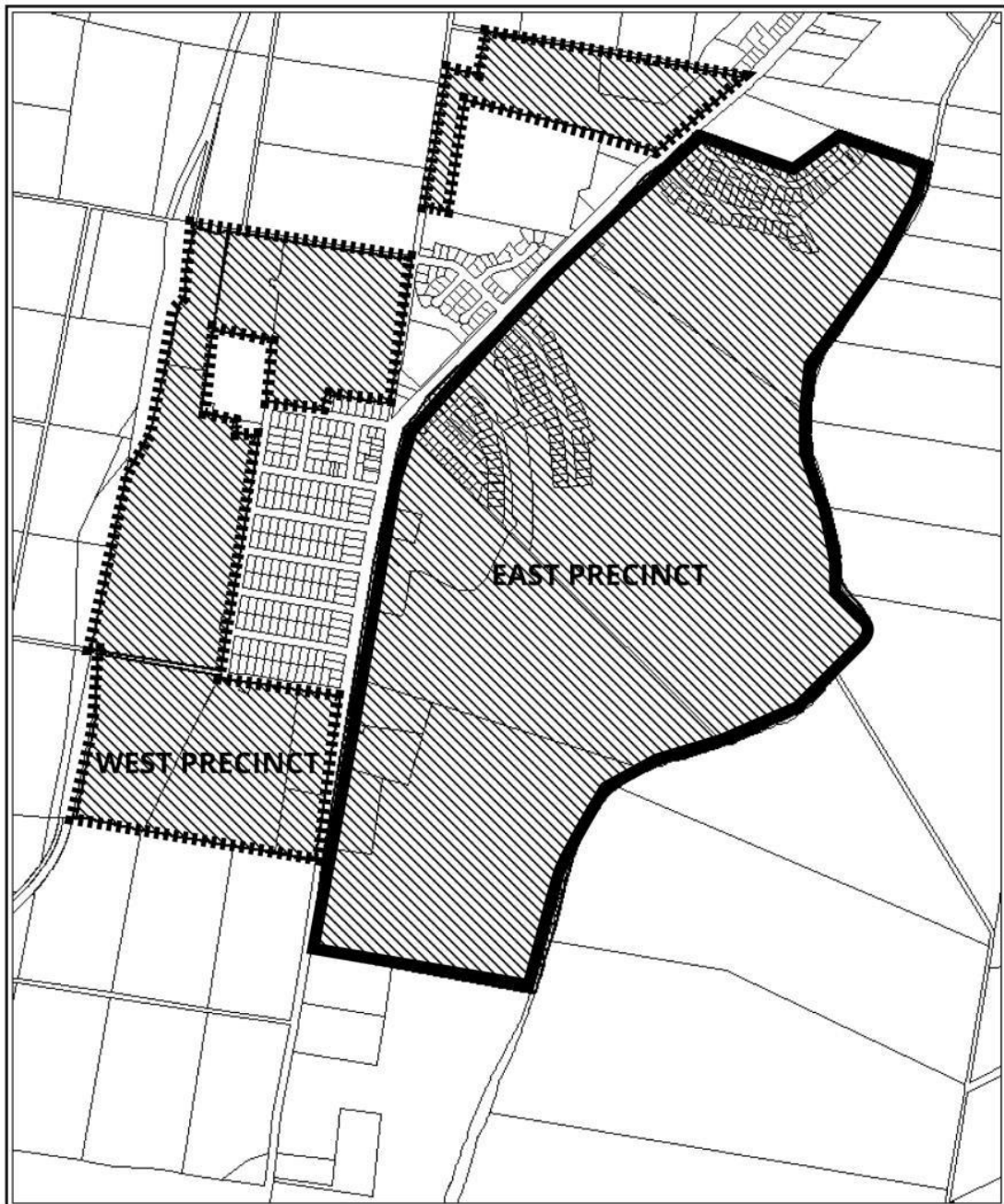


Figure 19: Gillieston Heights Precinct Plan.

## STAGING PLAN

Staging of development in the Area Plan should generally accord with the Staging Plan as shown in Figure 20. The Staging Plan provides for the timely and efficient release of urban land in relation to infrastructure and transport connections.

### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 20.

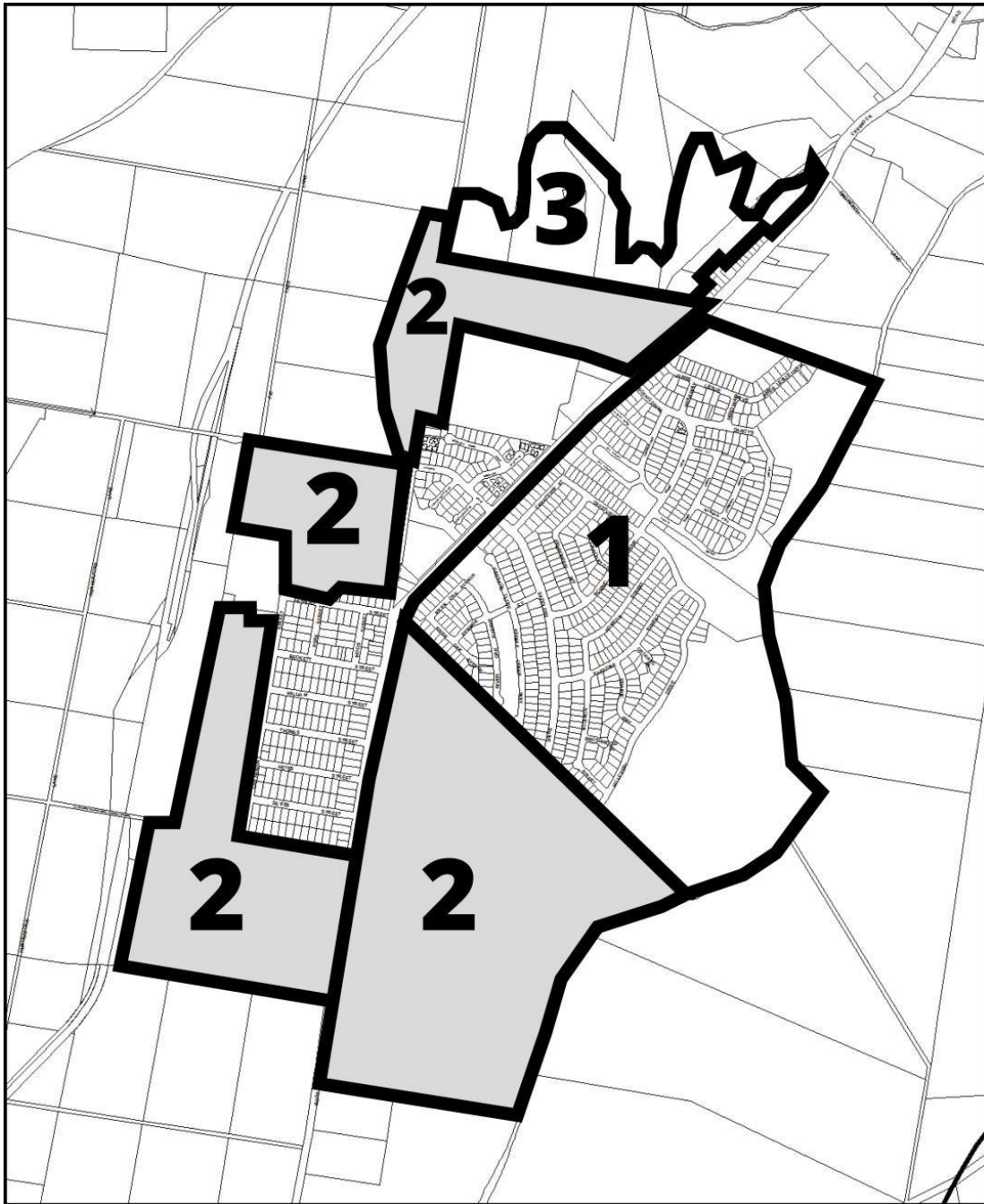
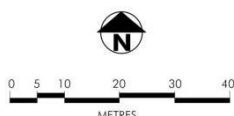
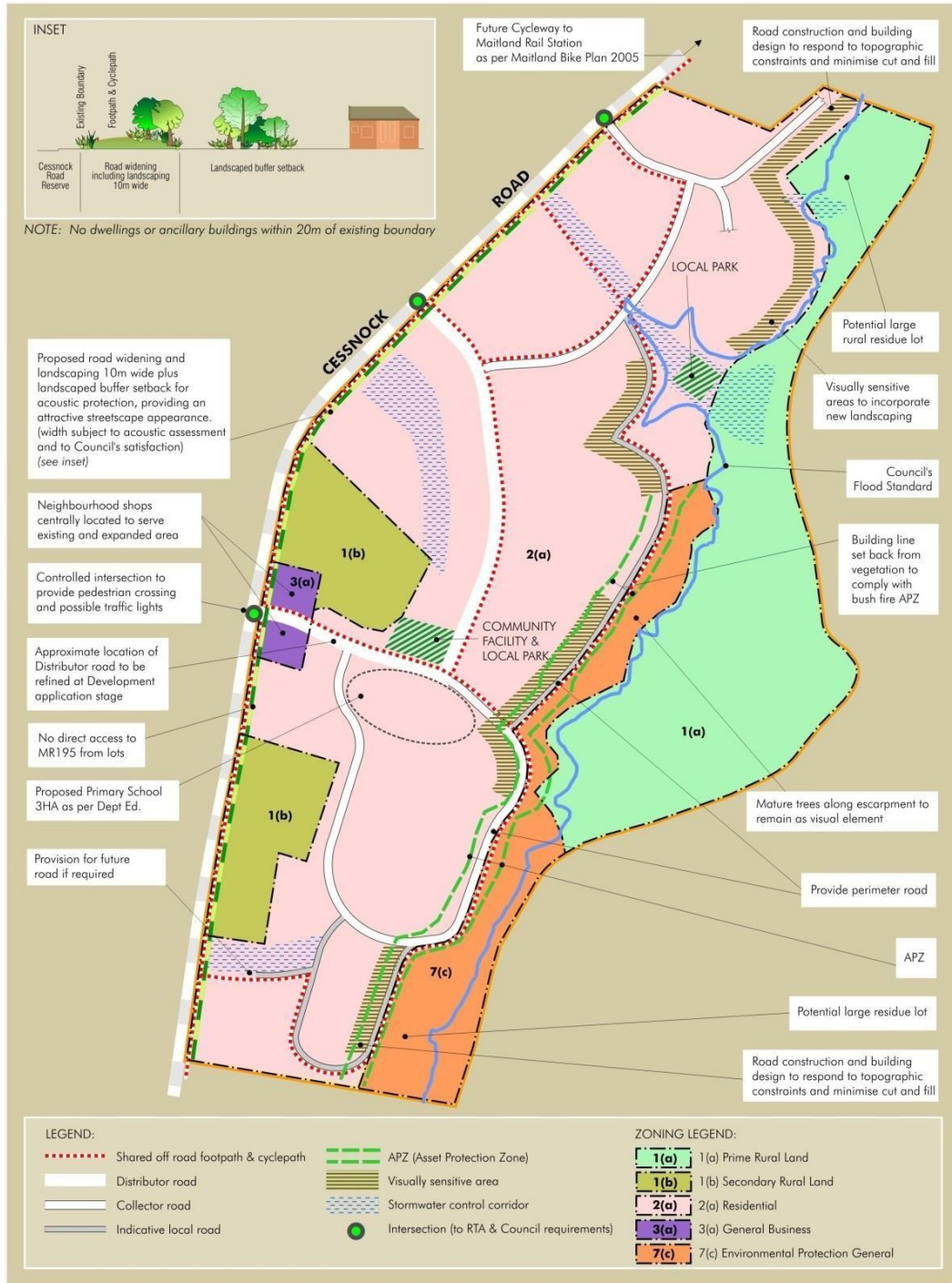


Figure 20: Gillieston Heights Urban Release Area - Staging Plan.



# GILLIESTON HEIGHTS – EAST PRECINCT

The following are the Area Plan provisions that apply to the East Precinct.



## GILLIESTON HEIGHTS Precinct Plan

Figure 21: Gillieston Heights East - Precinct Plan

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. Road layout should be consistent with the Figure 21.
2. Development applications for subdivisions must ensure that road networks connect to other development areas in a logical hierarchy of street function.
3. No new future lot shall have direct vehicular access to Cessnock Road (MR195).
4. Cycleways are to be provided for generally in accordance with the Precinct Plan and the Maitland Bike Plan 2005.
5. Pedestrian paths and cycleways links with other precincts are to be provided at the strategic access points on Cessnock Road.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.

3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. Council may require a Visual Impact Assessment to be undertaken to accompany Development Applications for subdivisions and development that are likely to have a visual impact on the area. Such assessments may include proposed ameliorative measures to be incorporated within the development, such as dwelling designs, building materials, colour schemes and landscaping. Such assessments are to have regard to the background reports used in the preparation of the Precinct Plan.
2. The natural character of all ridgelines, knolls and hillsides are to be protected by retaining any vegetation or introducing new landscaping to ensure the visual impact of development is minimised, particularly within and adjacent to the visually sensitive areas. Details are to be provided with the landscaping plans to be submitted with development applications.
3. The subdivision design is to provide for lot frontages addressing streets, drainage reserves and open space. Where there is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour.

#### **1.4 Passive and Active Recreational Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.5 Stormwater and Water Quality Management Controls**

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.6 Amelioration of Natural and Environmental Hazards**

##### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from Cessnock Road.

##### Development controls

1. Flood free access is to be available to all proposed allotments.

2. There are no specific requirements for bushfire.
3. All development applications shall demonstrate compliance with the requirements of SEPP 55 - Remediation of Land.

## 1.7 Key Development Sites

### *Land adjoining Cessnock Road*

#### Objectives

1. Detailed urban design controls are provided for significant development sites to assist in providing separation to traffic noise and a streetscape view of the front of dwellings and landscaped gardens.
2. Fencing shall not form a prominent element in the landscape along the road corridor.

#### Development Controls

1. A 20 metre wide buffer (incorporating 10 metres for road widening and 10 metres for landscaping) shall be established on land adjoining the eastern side of Cessnock Road, north of Russell Street as shown on the Figure 21.
2. Details of the landscape buffer is to be provided in a landscape plan with any development application for the site.
3. An independent acoustic report shall be submitted with any development application identifying levels of impact and noise attenuating measures for future residential development in accordance with RTA and DECCW requirements.
4. The buffer setback zone adjacent to Cessnock Road (MR 195) should include a local subdivision street and landscaping.
5. No future lot shall have direct access to Cessnock Road (MR 195).
6. Fencing of allotments along the boundary of Cessnock Road shall be of consistent materials and colour and form an integral part of the landscape plan provided with the development application.

### *Rural Land/Flood Fringe Interface*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development Controls

1. A perimeter road (with development on one side only) shall be provided around the edge of the Precinct where it adjoins flood prone land, rural land or land zoned for environmental protection.
2. An off-road shared path shall be provided on the lower side of the perimeter road to create a continuous pathway.



3. Fencing is to make a positive contribution to the visual appearance of development, and will be consistent with the overall landscaping strategy. Fencing adjacent to the boundaries of the surrounding rural lands and visually sensitive areas shown on the Precinct Plan shall be unobtrusive, compatible with the rural character, and may include timber post and rail style. Details of fencing is required to be submitted to Council with development applications.
4. Development adjacent to rural zones and flood prone lands are to be suitably designed so as to be compatible with the existing rural landscape and setting.
5. Access to such allotments shall be flood free and at appropriate gradients, with minimal earthworks.
6. Any fencing of allotments in flood prone areas shall be designed so as not to restrict or divert flood waters.

### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### **1.9 Neighbourhood Commercial and Retail Uses**

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. The commercial centre is to be located in generally in accordance with Figure 21 and have easy and direct pedestrian, cyclist and vehicle access to the surrounding residential area and good visibility from the main access route.
2. The street structure adjoining the commercial centre is to be designed to accommodate or facilitate buses and bus stops.
3. Commercial development within land zoned for business purposes is not subject to the landscape buffer requirements adjacent to Cessnock Road (MR 195) as shown on the Precinct Plan, except for the 10 metres road widening. Notwithstanding this, such development must include appropriate landscaping as part of the overall design.
4. Development, which is located adjacent to Cessnock Road (MR 195), including land zoned for business purposes, should be appropriately designed so as to provide a high quality architectural appearance with visual interest, particularly by discouraging bulky buildings and blank walls.
5. The school is to be located on a collector road close to the commercial centre to encourage use of the centre, but does not have direct access to Cessnock Road.

### **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## GILLIESTON HEIGHTS – WEST PRECINCT

The following are the Area Plan provisions that apply to the West Precinct.

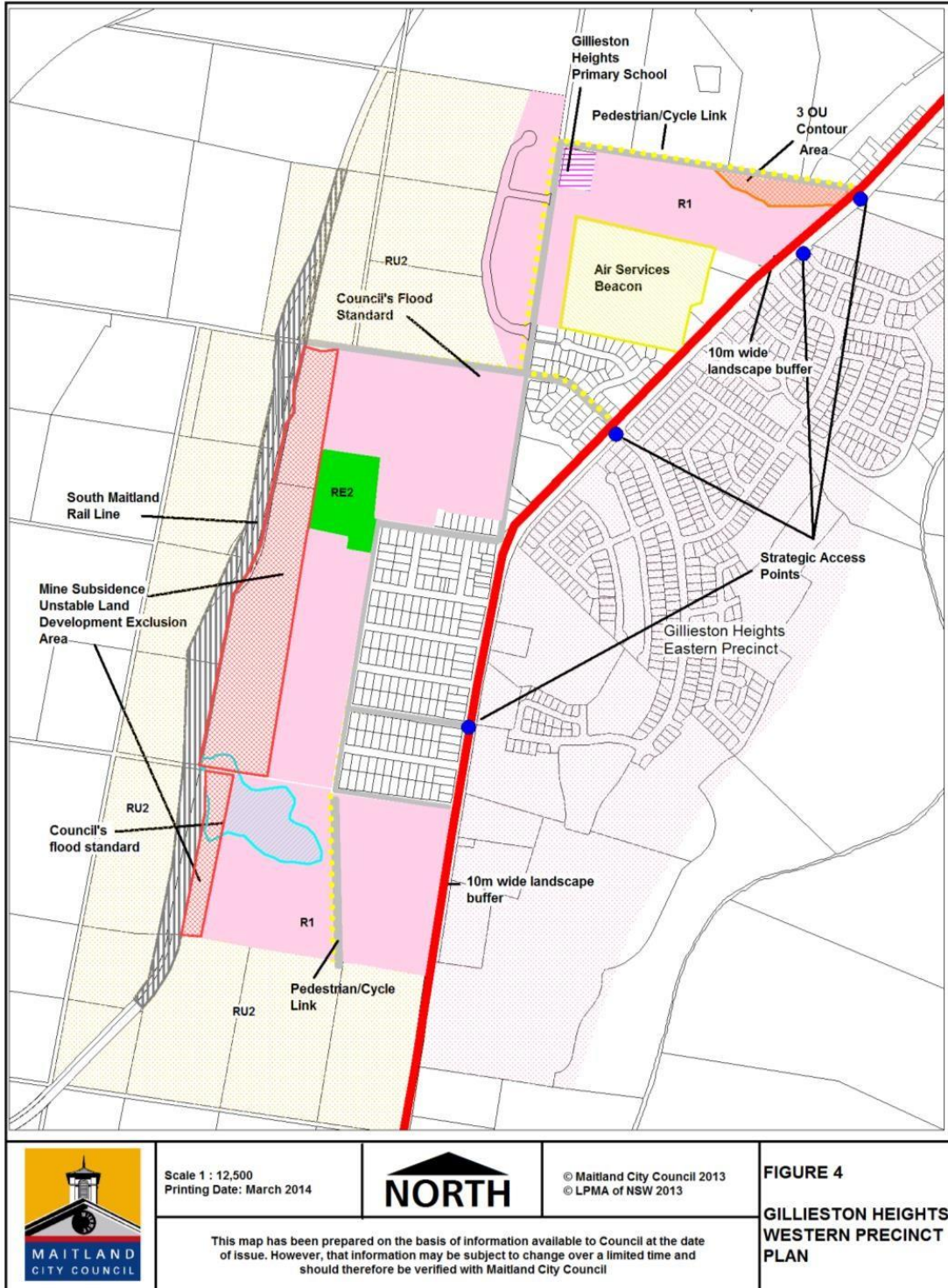


Figure 22: Gillieston Heights West Precinct.

## 1. Development Requirements

All development applications shall demonstrate consistency with the following requirements.

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport Movement Hierarchy

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. Road layout should be consistent with the Precinct Plan. Development applications for subdivisions must ensure that road networks connect to other development areas in a logical hierarchy of street function.
2. Each development area is required to have access to a minimum of one of the strategic access intersections as identified on the Precinct Plan. The northern development area fronting Gillieston Road is required to have access to Vintage Drive as well as the upgraded intersection at Gillieston Road.
3. No new future lot shall have direct vehicular access to Cessnock Road (MR195).
4. Road widening to 11 metres carriageway width must be provided for lots fronting Gillieston Road, Kiah Road and Cartwright Street in accordance with Council's requirements. Reconstruction of these roads for their full length providing continuous access to the intersection points shall be undertaken in accordance with Council's standards. All other roads including Ryans Road, are to be constructed in accordance with Council's Engineering Standards.

5. Cycleways are to be provided for generally in accordance with the Precinct Plan and the Maitland Bike Plan 2005.
6. Pedestrian paths and cycleways links with other precincts are to be provided at the strategic access points on Cessnock Road.

### **1.3 Overall Landscaping Strategy**

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. The subdivision design is to provide for lot frontages addressing streets, drainage reserves and open space. Where there is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour.

### **1.4 Passive and Active Recreational Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.5 Stormwater and Water Quality Management Controls**

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.6 Amelioration of Natural and Environmental Hazards**

#### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

#### Development controls

1. Flood free access is to be available to all proposed allotments.
2. There are no specific requirements for bushfire.



3. All development applications shall demonstrate compliance with the requirements of SEPP 55 - Remediation of Land.

## 1.7 Key Development Sites

### *Land adjoining South Maitland Railway*

#### Objectives

1. To ensure that future residential development is not adversely affected by any noise and vibration from the South Maitland rail corridor.

#### Development controls

1. No residential development is to occur within 60 metres of the western boundary of Lot 1 DP 986923 as shown on the Precinct Plan.
2. A noise and vibration assessment, prepared by suitably qualified consultants, is to accompany development applications for land adjoining the South Maitland Railway.
3. Appropriate noise mitigation measures are to be provided, in accordance with recommendations of the acoustic report, for any land adjoining the South Maitland Railway.
4. Residential subdivision and development is to be designed so as to comply with the relevant standards and criteria for noise and vibration contained within *SEPP (Infrastructure) 2007* and DECCW standards at the time.
5. Appropriate noise and vibration controls are to be provided by means of separating the source and the receiver, including landscaping and buffers which do not detract from the streetscape and visual appearance of the area. Applying building design techniques to new housing is strongly recommended.

### *Land surrounding Air Services Australia Beacon*

#### Objectives

1. To ensure that the Air Services Australia Beacon is not adversely affected by future residential development.

#### Development controls

1. No part of any building within 150 metres of the Doppler VHF Omni Directional Range (DVOR) vector, located on Lot 1 DP 817693 (No. 258 Cessnock Road, Gillieston Heights) shall protrude above a height of RL 42m AHD.
2. Any landscaping of lots within 150 metres of the DVOR vector shall be maintained below a height of RL 42m AHD.

### *Mine Subsidence – Unstable Lands*

#### Objectives

1. To ensure that future residential development is not adversely affected by mine subsidence.

#### Development controls

1. No development is to occur within 60 metres of the western boundary of Lot 1 DP 986923 as shown on the Precinct Plan.
2. No development is to occur in the western portion of Lots 1 and 2 DP 1136352 as shown on the Precinct Plan.
3. Development on Lot 5 DP 868890 and Lots 1 and 2 DP 1136352 zoned for residential purposes, as shown on the Precinct Plan, shall be limited to a maximum of two storey brick veneer construction unless otherwise approved by the Mine Subsidence Board.

### *Land fronting Cessnock Road*

#### Objectives

1. To ensure that future residential development is not adversely affected by any noise and vibration from Cessnock Road.

#### Development controls

1. Any development application for subdivision of Lot 1 DP 197680 shall make provision for road connection from Cartwright Street through the site to enable future access to the south of the Precinct.
2. A 10-metre wide landscape buffer, wholly contained within the affected lots, is required for lots adjoining Cessnock Road. The landscape buffer setback is to include elements to assist with reducing traffic noise from Cessnock Road with details provided in a landscape plan with any development application for the subject lands.
3. Applications for the subdivision of land adjoining Cessnock Road are to include an Acoustic Report identifying the impact in relation to RMS and EPA standards, and appropriate noise mitigation measures.

### *Land Adjoining Poultry Farm*

#### Objectives

1. To ensure that future residential development is not adversely affected by the operation of the poultry farm.

### Development controls

1. No development is to occur in areas subject to odour levels greater than 3 odour units as identified in the Precinct Plan, unless evidence is provided that the poultry operations have ceased.

### *Rural Land/Flood Fringe Interface*

### Objectives

1. Development adjacent to rural zones and flood prone lands are to be suitably designed so as to be compatible with the existing rural landscape and setting.
2. Fencing is to make a positive contribution to the visual appearance of development, and will be consistent with the overall landscaping strategy.

### Development controls

1. A perimeter road (with development on one side only) shall be provided around the edge of the Precinct where it adjoins flood prone land, rural land or land zoned for environmental protection.
2. Fencing adjacent to the boundaries of the surrounding rural lands shall be unobtrusive, compatible with the rural character, and may include timber post and rail style.
3. Details of fencing are required to be submitted to Council with development applications.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## F.6 - Largs Urban Release Area

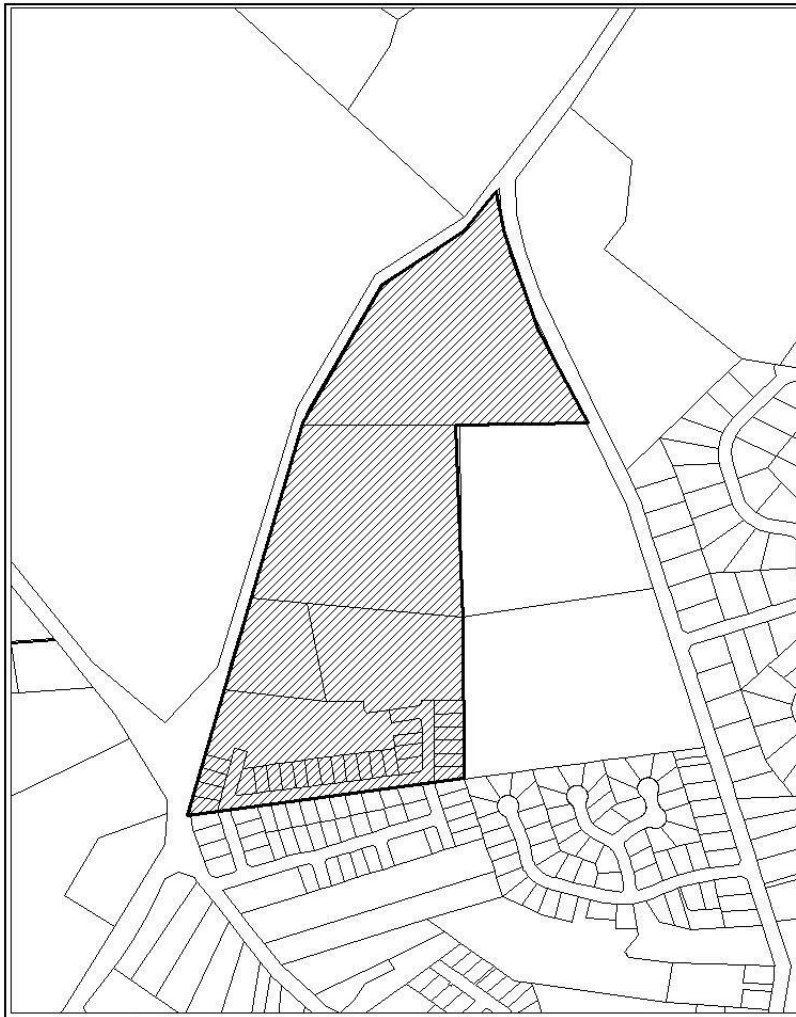


Figure 23: Largs Locality Plan.

### DESCRIPTION

The Largs Urban Release Area will be developed as a residential area with a range of lot sizes that reflect the constraints of the site. Individual lots will generally accommodate one and two storey dwellings. Multi dwelling housing or dual occupancy proposals should ensure that potential impacts to privacy, solar access, visual amenity, traffic management and its suitability in relation to the form of adjoining development have been taken into account.

A high value will be placed on retaining existing vegetation, where public safety is not at risk, and the establishment of additional landscaping will enhance the visual appearance of the area from surrounding urban and rural vantage points.

An overall Area Plan has been prepared for this Urban Release Area, as the area is relatively compact in relation to other sites.



### Largs - Urban Release Area Plan

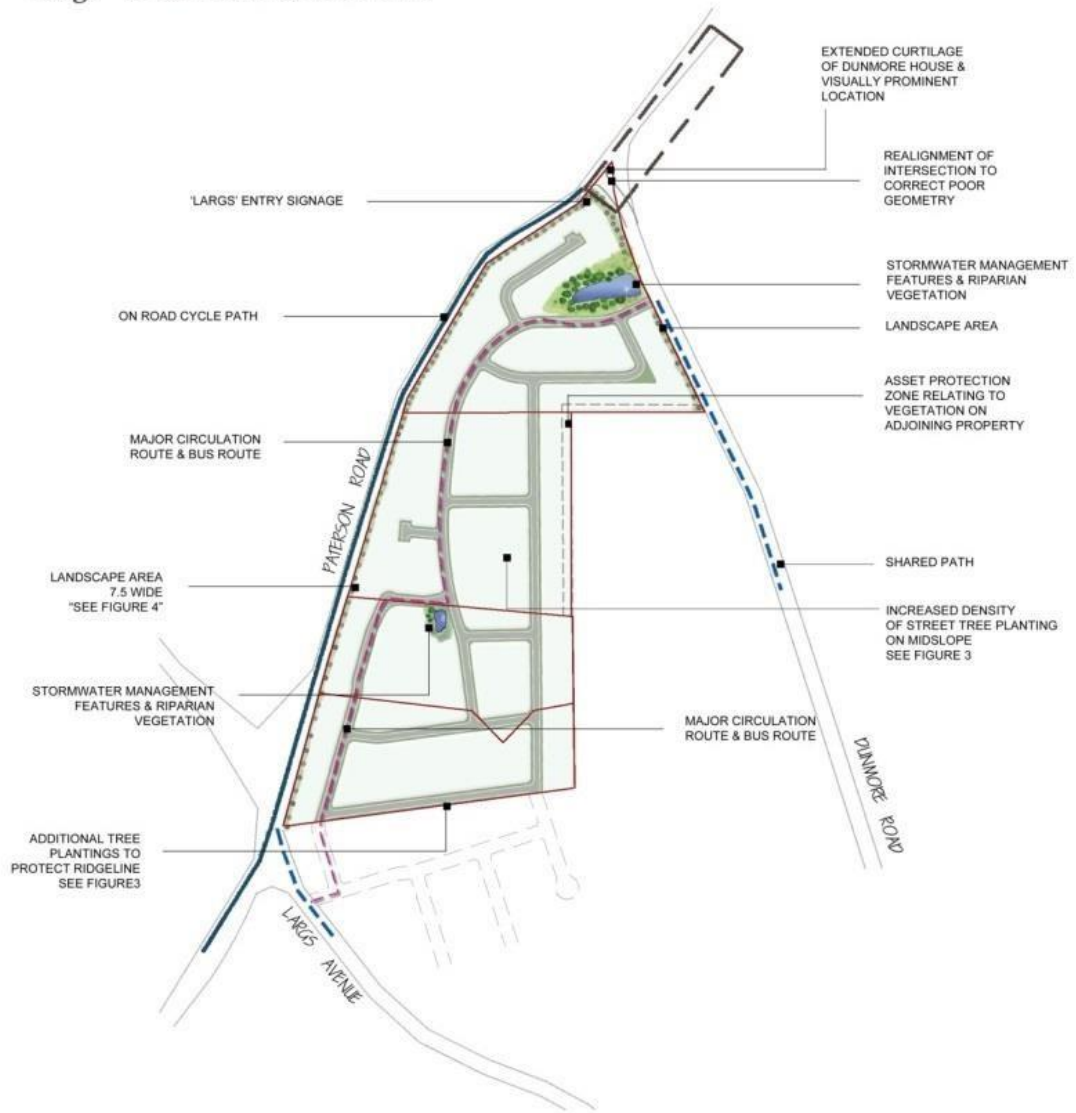


Figure 24: Largs Area Plan.

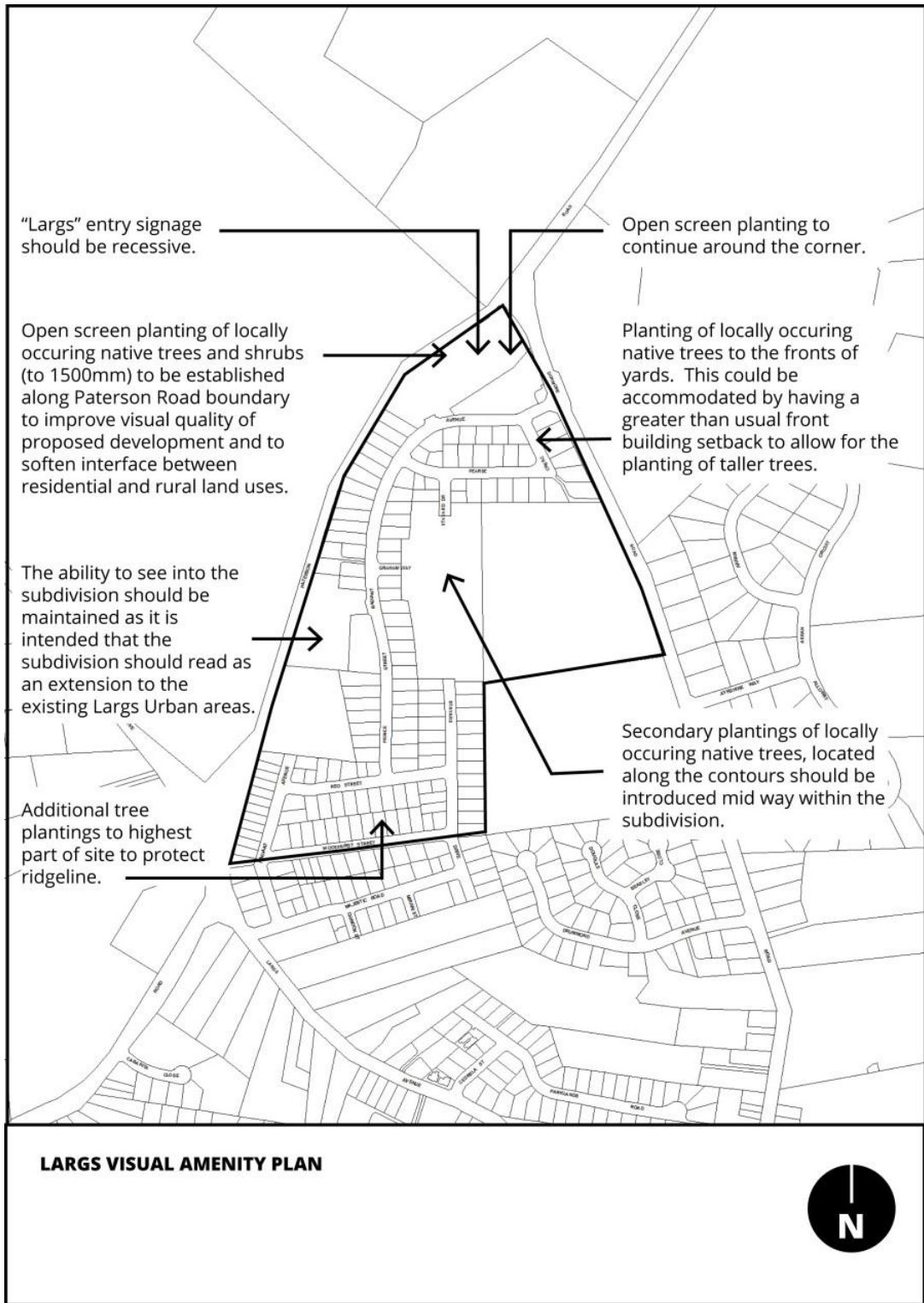


Figure 25a: Largs - Visual amenity plan.

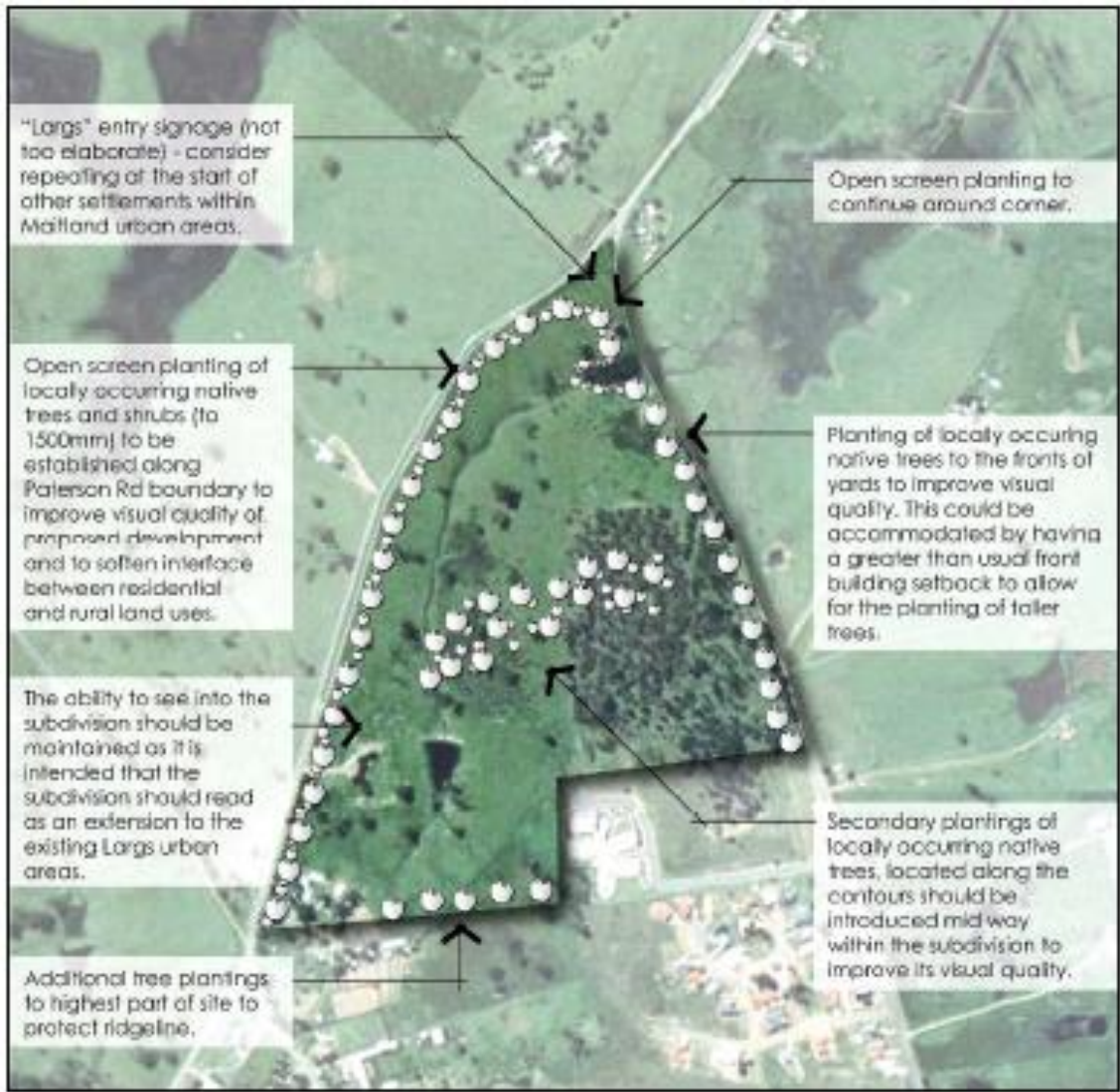


Figure 25b: Largs - Visual amenity plan.





### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

## **1.2 Transport Movement Hierarchy**

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. Road layout and street design will be consistent with the adopted Western Precincts Plan and following detailed survey and subdivision planning.
2. The intersection of Dunmore Road and Paterson Road will require realignment to correct geometry constraints. Realignment should be in accordance with Council's requirements and standards.
3. Development applications shall facilitate any road upgrade on Largs Avenue or Dunmore Road and intersection upgrade at Dunmore Road and Paterson Road.
4. There will be no direct access to Paterson Road either via an intersection or driveway access from new residential allotments.
5. Road design shall take into account the stormwater management strategy and ensure that there will be satisfactory driveway access to new allotments, at a grade less than the maximum provided for in the Manual of Engineering Standards.
6. The transport movement hierarchy shall generally be in accordance with the major circulation route, cycleways and shared paths shown on the Precinct Plan.
7. Provision must be made for a continuous bus route through the area. The bus route shall have a minimum road reserve of 18 metres and carriageway of 9 metres.
8. Suitable transport access and connectivity within the site and to adjoining areas shall be maintained at all times for motor vehicles, pedestrians, cyclists and public transport providers.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. Detailed landscaping plans shall be submitted with all development applications for subdivision.
2. Plantings to achieve visual amenity and landscaping objectives are to be protected via mechanisms such as protective covenants, urban design (building setbacks, road reserves) or other options to the satisfaction of Council.
3. Landscaping and visual amenity provisions should complement acoustic and bushfire hazard treatments.
4. Lots fronting Paterson and Dunmore Roads immediately adjacent to, and up to 100 metres from, the Paterson and Dunmore Roads intersection should be of sufficient size to provide for substantial setbacks to improve visual quality.
5. Existing vegetation is to be maintained and enhanced where possible, particularly within riparian areas and public spaces.
6. Provide tree planting using locally occurring native trees to the upper part of the site to assist in providing a vegetated skyline in accordance with the Visual Amenity Plan (Figure 2).
7. Introduce tree planting within the subdivision, approximately mid slope, to improve amenity and to reduce the apparent size of the subdivision in accordance with the Visual Amenity Plan.
8. Provide landscaping at the intersection of Paterson Road and Dunmore Road taking into account the realignment of the intersection, to suitably minimise the visual effect of new development within the setting of Dunmore House.
9. Avoid the use of lightly-coloured and/or highly reflective roofing materials to assist in minimising the visual impact of new development from a distance.
10. Gateway signage or gateway elements should be understated and refer to "Largs" rather than "Maitland", and be located at the intersection of Dunmore Road and Paterson Road.
11. Subdivision entry features should be separate from the Largs gateway element to avoid ambiguity.
12. Landscaping shall be provided to the boundaries of Paterson and Dunmore Roads using locally occurring native species.
13. The landscaping area to Paterson Road shall be 7.5 metres wide and maintained within allotments via a protective covenant. This landscaping area shall include native ground covers and shrubs to a maximum height of 1,500

mm so as to not hide the development, but improve visual amenity. The Planting Cross-Section diagram (*Figure 3*) shows a typical cross section of vegetation plantings for the site.

14. The landscaping area to Dunmore Road shall include the retention of existing native trees as well as additional tree planting. Building setbacks must take into account tree plantings.
15. Fencing within the landscaping areas shall make a positive contribution to the visual appearance of development and not detract from the provision of landscaping. Fencing should also be sensitive to the adjoining rural lands.

#### **1.4 Passive and Active Recreational Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.5 Stormwater and Water Quality Management**

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.
4. Stormwater Management facilities are to be located in accordance with the details provided on the Precinct Plan, or an alternative co-ordinated stormwater strategy as approved by Council.

##### Development controls

1. Stormwater and water quality management measures shall be provided generally in accordance with Figure 24.
2. Rainwater tanks will not be considered in the calculations for stormwater detention purposes.
3. Adequate stormwater management shall be provided at all times during the sequenced release of land.
4. All development applications are required to demonstrate that there will be no detrimental impact on downstream waterways, wetland environments or agricultural productivity as a result of new development.

## 1.6 Amelioration of Natural and Environmental Hazards

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

### Development controls

1. Construct intersection of Dunmore Road within site to provide continuous floodfree access.
2. Construct all subdivision roads to provide suitable flood free access to residential allotments.
3. An Asset Protection Zone (APZ) is to be provided between any development and the boundary of Lot 2 DP 32519 as identified on the Precinct Plan and in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.
4. Geotechnical investigations and appropriate amelioration responses must be submitted with development applications for subdivision to determine the following:
  5. Suitability of footing design and road pavement design parameters with respect to rock outcrops, soft/saturated soils, erosion potential and salinity;
  6. Slope stability assessment of on-site dam embankments;
  7. Earthwork procedures and specifications.
8. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## 1.7 Key Development Sites

### *Former Largs Military Camp (Lot 80 DP 1112497)*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Details of site history and past analysis shall be submitted to Council with any development application for residential development on Lot 80 DP 1112497, to assess the potential for unexploded ordnance associated with the former Largs Military Camp.
2. Sub-surface investigations are to be undertaken for Lot 80 DP 1112497 for the presence of relics associated with the former Largs Military Camp, prior to commencing any development work.



### *Extended curtilage of Dunmore House*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. No buildings are to be constructed within the extended curtilage of Dunmore House as identified on the Area Plan.

### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

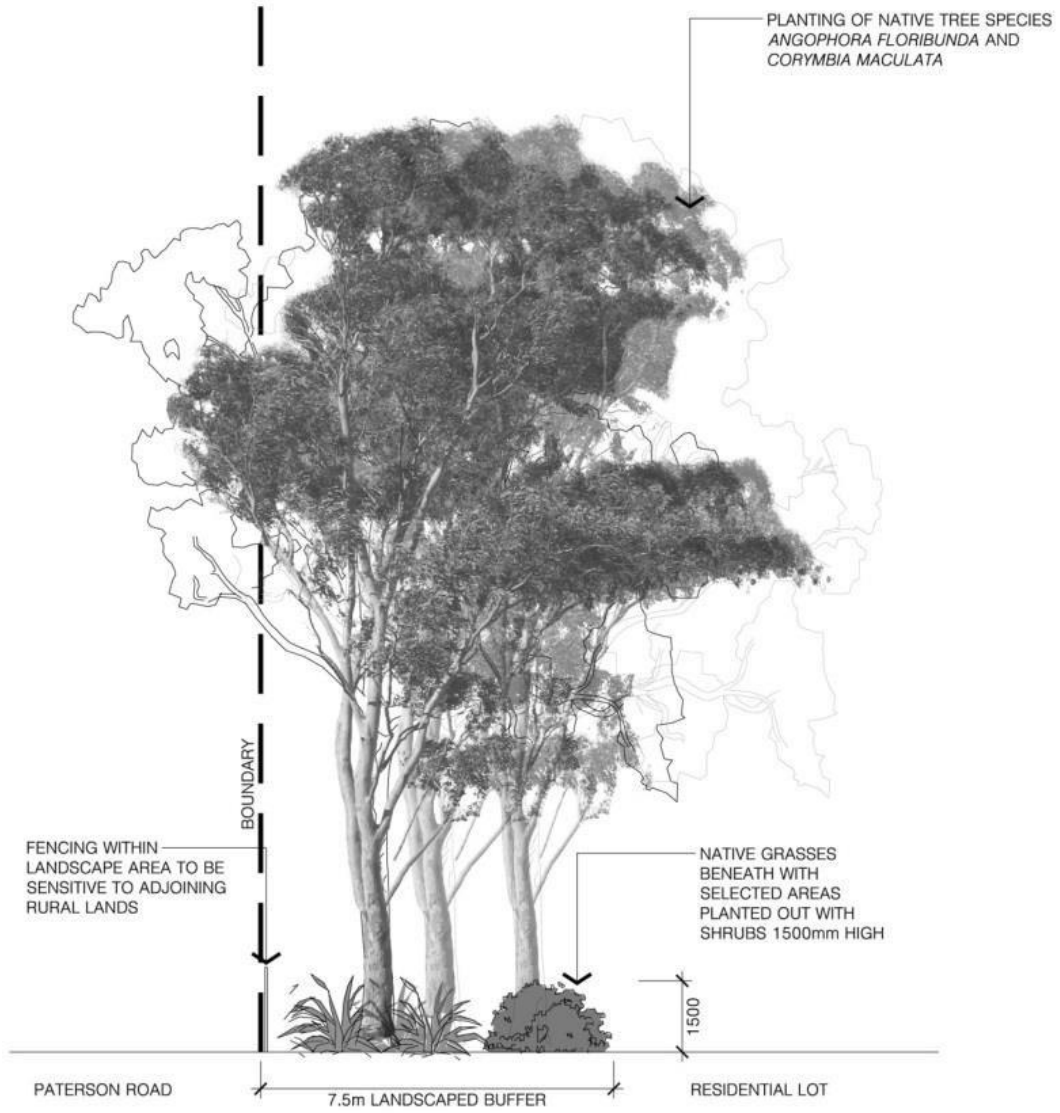


Figure 27: Largs - Planting cross-section.

# F.7 - Thornton North Urban Release Area



Figure 28: Thornton North - Locality Plan.

## DESCRIPTION

The Thornton North Urban Release Area comprises a total of 900 hectares of land, with an approximate residential yield of 5,000 lots. The Lower Hunter Regional Strategy (Dept of Planning, 2006) identifies Thornton URA as a regionally significant development area and is a key site to achieve the dwelling targets for population growth in the Lower Hunter.

The proximity of the Thornton URA to regional transport systems, including the rail corridor, the F3 Freeway and the New England Highway is fundamental to the identification of this area for urban development.

A Structure Plan and associated Infrastructure Plans (including a specific Section 94 Contributions Plan) have been prepared for this URA.



# THORNTON NORTH AREA PLAN

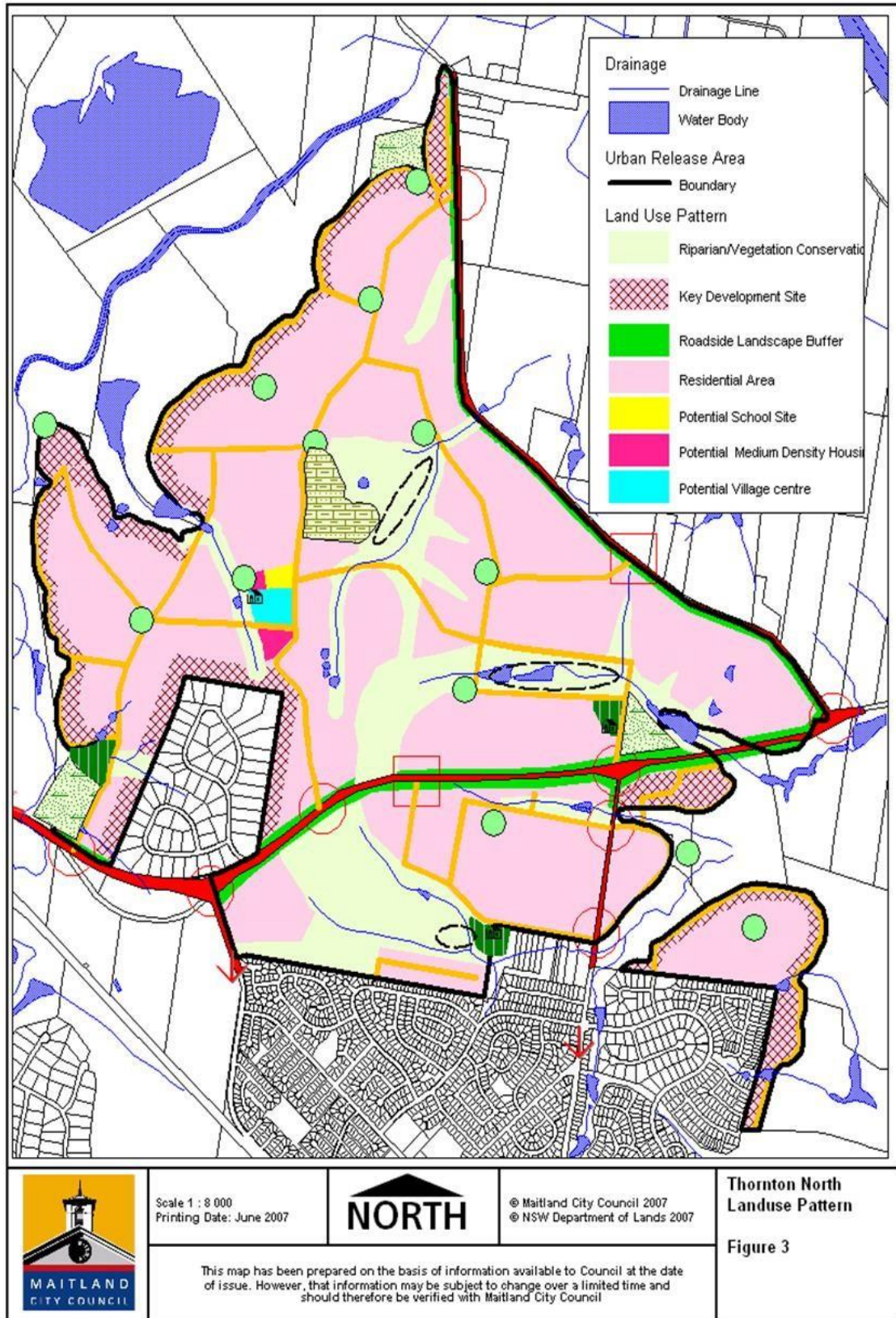


Figure 29: Thornton North Land use Pattern.



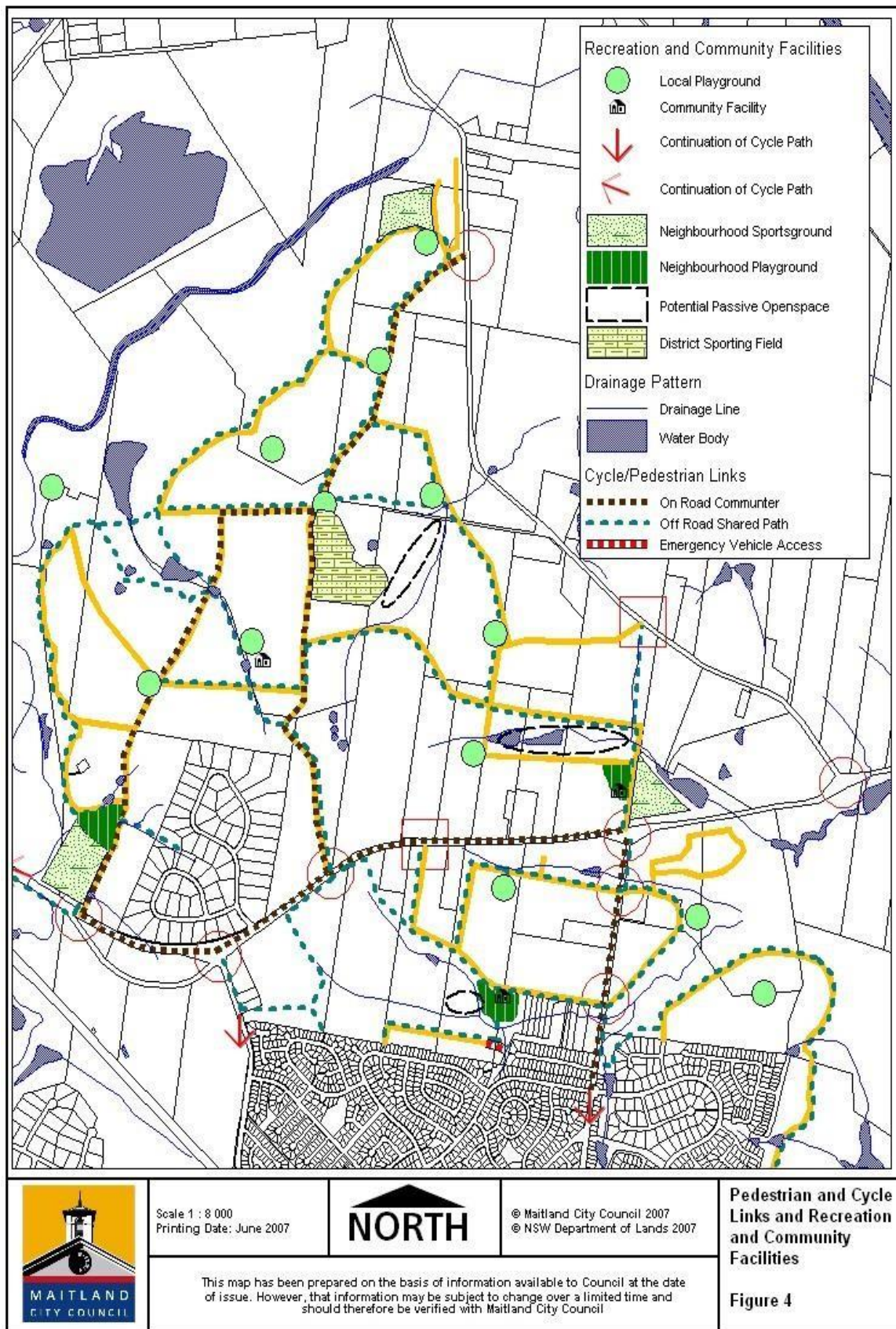


Figure 30: Thornton North - Pedestrian and cycle links and recreation and community facilities.





Figure 31: Thornton North - Staging Plan.

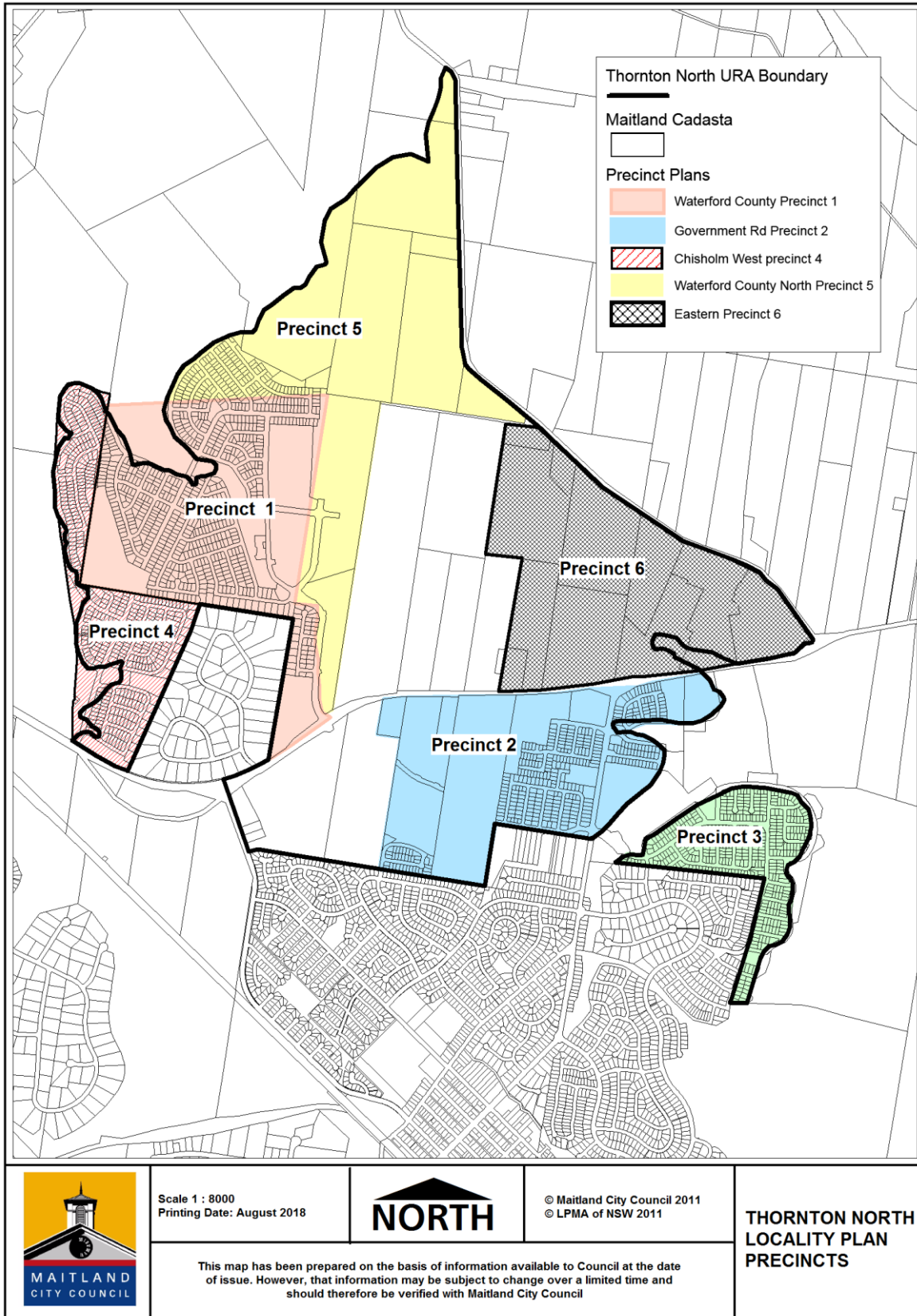


Figure 32: Thornton North - Precincts.



## 1. Development Requirements

The Thornton North Area Plan is comprised of precinct plans as shown in Figure 32.

### 1.1 Staging Plan

Staging of development should generally accord with the Staging Plan as shown in Figure 31. The Staging Plan provides for the timely and efficient release of urban land and aligns with the precinct plans as shown in Figure 32.

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. The Area Plan comprises of Precinct Plans. The Precinct Plans correspond with the sequencing of land identified in the Thornton North Area Staging Plan.
2. Precinct Plans are to be prepared for each development area. Development consent shall not be issued for any development on land within the Thornton North Urban Release Area until a Precinct Plan has been prepared for the land.
3. Each Precinct Plan must address the specific requirements outlined in Section A.2: Precinct Plan Requirements to the satisfaction of Council.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. Each Precinct Plan is to include an overall transport movement hierarchy showing the major circulation routes and connections.
2. The overall movement hierarchy for each Precinct Plan should be generally consistent with the Figure 30.
3. The overall pedestrian and cycleway links should be generally consistent with the Figure 30.

4. The primary access for residential development in Stage 1 of the Thornton North Urban Release Area is to be provided off Raymond Terrace Road or Government Road.
5. A perimeter road (with development on one side only) shall be provided around the edge of the Thornton North Urban Release Area where it adjoins flood prone land.
6. Perimeter roads should also be used adjacent to open space, and areas of high bushfire risk and visual significance.
7. No new lot shall have direct vehicular access to Raymond Terrace Road, Government Road or McFarlanes Road.
8. Subdivisions adjacent to main roads such as Raymond Terrace Road should orientate allotments and dwellings to face the main road, with suitable internal roads providing access, and suitable landscaping separating the allotment boundaries and main road.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
4. A series of residential neighbourhoods are to be designed throughout the Urban Release Area to create a sense of identity, through distinct landscape and built form elements.

#### Development controls

1. Landscaping will be required on land adjacent to major intersections, all collector roads, the main north/south Boulevard, Raymond Terrace Road and Government Road.
2. The overall landscaping strategy shall provide for a minimum of 10 metres of landscape buffering to Raymond Terrace Road, Government Road and McFarlanes Road (see Figure 1).
3. The overall landscaping strategy shall provide a minimum of 5 metres of landscaping adjoining Timberlane Estate, within the 15 metre 'no development' buffer.
4. The overall landscaping strategy shall provide extensive tree planting to the wetland edge, with visual breaks where streets terminate in views to the wetlands.
5. Subdivision and housing design is to take advantage of significant and attractive views overlooking the surrounding rural lands by orienting streets and locating public space to capture views.

## 1.4 Passive and Active Recreational Areas

### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

### Development controls

1. The network of passive and active recreational areas should be provided generally in accordance with Figure 30 and the associated Section 94 Contributions Plan.

## 1.5 Stormwater and Water Quality Management

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. The stormwater and water quality management controls shall be consistent with the Thornton North Structure Plan in the use of Water Sensitive Urban Design (WSUD).
2. The number and location of WSUD elements should be determined by modeling to develop the WSUD strategy for the site, and be integrated with the overall design.
3. Parking areas can be located adjacent to WSUD elements where they are designed to prevent damage by vehicles.
4. Bollards or castellated kerbs are required to allow distributed flow to WSUD elements.
5. Parking areas may be interspersed between WSUD elements.
6. Long-term maintenance costs are to be identified in the design of the WSUD elements and are to be submitted to Council for consideration prior to acceptance of the WSUD strategy.
7. Swales may be acceptable where it can be demonstrated that they will meet Council's performance and maintenance objectives and facilitate safe and effective movement of pedestrians and vehicles.
8. No change to the minimum width of roads on account of WSUD is permissible.
9. Flow control measures shall be used where grades in swales exceed 4%.

10. Where practical, WSUD elements may be incorporated in a centre depressed median of dual carriage roads.
11. Wherever possible, existing natural drainage gullies should form part of a stormwater and runoff drainage management system incorporating detention basins and/ or wetlands to alleviate stormwater peaks and retain pollutants.
12. Wetlands should be well-designed creating an attractive and safe amenity, and be highly visible for both the adjoining residents and passers-by.
13. Walking paths should have frequent contact adjacent to the wetland edge.
14. Vegetation should be designed such that generous unobstructed view of the wetland is available.
15. Emergent macrophytes should be minimal and manageable.
16. Slopes surrounding wetlands should be gentle and offer convenient tractor-mowing access.
17. Flat grassed areas that potentially may be water-logged should be avoided.
18. Gullies intended to be left in their natural state should be assessed, and if necessary enhanced to offset the need for maintenance.
19. In general, grassed areas must be kept to a minimum for maintenance purposes, and wetland and gullies should offer a sense of ownership to the public.

## **1.6 Amelioration of Natural and Environmental Hazards**

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from incompatible land uses, including road and rail corridors and extractive industries.

### Development controls

1. Subdivision design and lot layout must ensure that any future residential housing will not be adversely affected by noise or vibrations, particularly from quarry operations, the railway line and traffic along Raymond Terrace Road and Government Road.
2. Independent acoustic and vibration reports shall be submitted with Precinct Plans and Development Applications for subdivision identifying potential impacts and mitigating measures.

## **1.7 Key Development Sites**

### Objectives

1. Detailed urban design controls are provided for significant development sites.



## Development controls

1. Each Precinct Plan is to include detailed urban design controls for the following significant development sites:
  - Precinct Plans are to include detailed urban design controls (including traffic management requirements and car parking designs) for the following Key Development Sites identified in the Thornton North Area Plan:
  - Schools, libraries and community facilities
  - Gateway sites
  - Exhibition villages
  - Residential areas adjoining the flood fringe
  - Interface area surrounding Timberlane Estate
  - Clay conservation areas, existing quarry sites and buffers.
2. Development or works within, or adjacent to the land zoned E2 Environmental Protection are to ensure clearing of vegetation is minimised to the satisfaction of Council.
3. Mechanisms are to be put in place with development to ensure the integrity and protection of established vegetation and riparian areas zoned E2 Environmental Protection. Details are to be included in all Development Applications affecting the E2 zone.
4. Development within residential zones must be designed and planned to ensure any Asset Protection Zones and the like are not required or needed in the E2 Environmental Protection zone.
5. Precinct Plans are to identify and suitably accommodate large rural allotments to enable the sustainable management of the rural flood fringe areas.
6. A limited number of rural dwellings will be considered on flood free areas, with dwelling sites to be located at least 0.5 metres above the 1% AEP flood level, and access to such dwellings to be flood free with minimal fill or earthworks.
7. Fencing of allotments shall be of post and wire style (or similar) so as to minimise any visual impacts of development.
8. Development adjacent to the rural zones and flood prone lands are to be suitably designed so as to be compatible with the existing rural landscape and setting.
9. Development adjacent to Raymond Terrace Road and Government Road must be orientated and dimensioned so as to make provision for housing of a high quality architectural appearance.
10. Housing adjacent to Raymond Terrace Road and Government Road should be appropriately designed so as to provide a high quality architectural appearance with visual interest, particularly by discouraging bulky buildings and blank walls.
11. Development on land adjoining the existing Timberlane Estate must be suitably located and designed so as to maintain view corridors and minimise any impacts on the existing neighbourhood amenity

### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## 1.9 Neighbourhood Commercial and Retail Uses

### Objectives

1. To accommodate and control appropriate neighbourhood commercial and retail uses.
2. To foster a sense of community and strong local identity and sense of place in neighbourhoods.

### Development controls

1. A separate Precinct Plan is required for the proposed Chisholm Local Activity Centre.
2. The Precinct Plan is to include detailed urban design controls (including traffic management requirements and car parking designs).

## 1.10 Provision of Public Facilities and Services

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

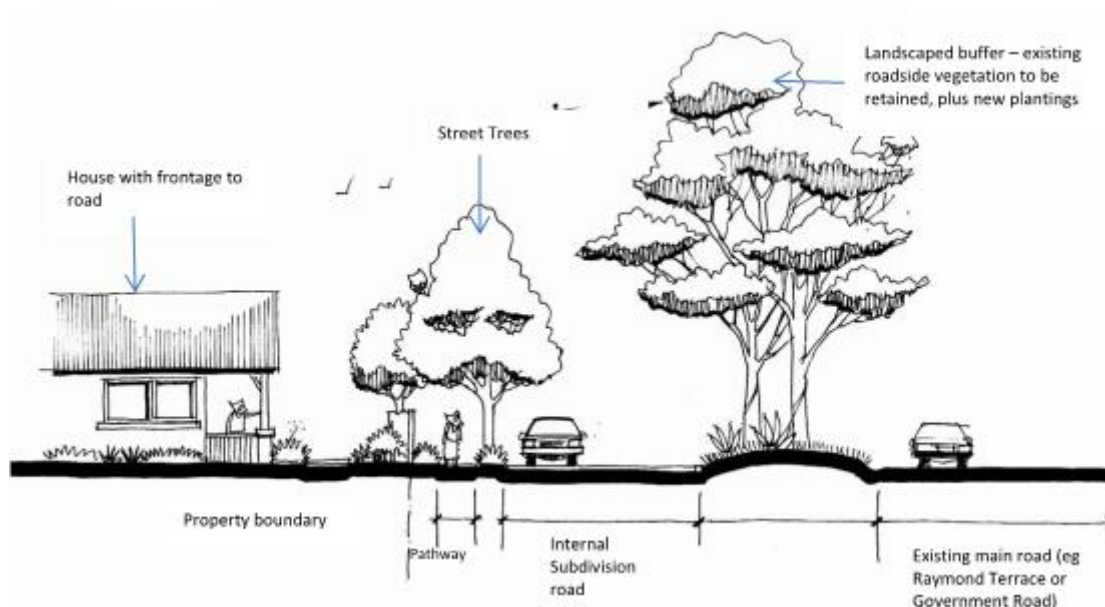


Figure 33: Internal subdivision design adjacent to Raymond Terrace Road and Government Roads.

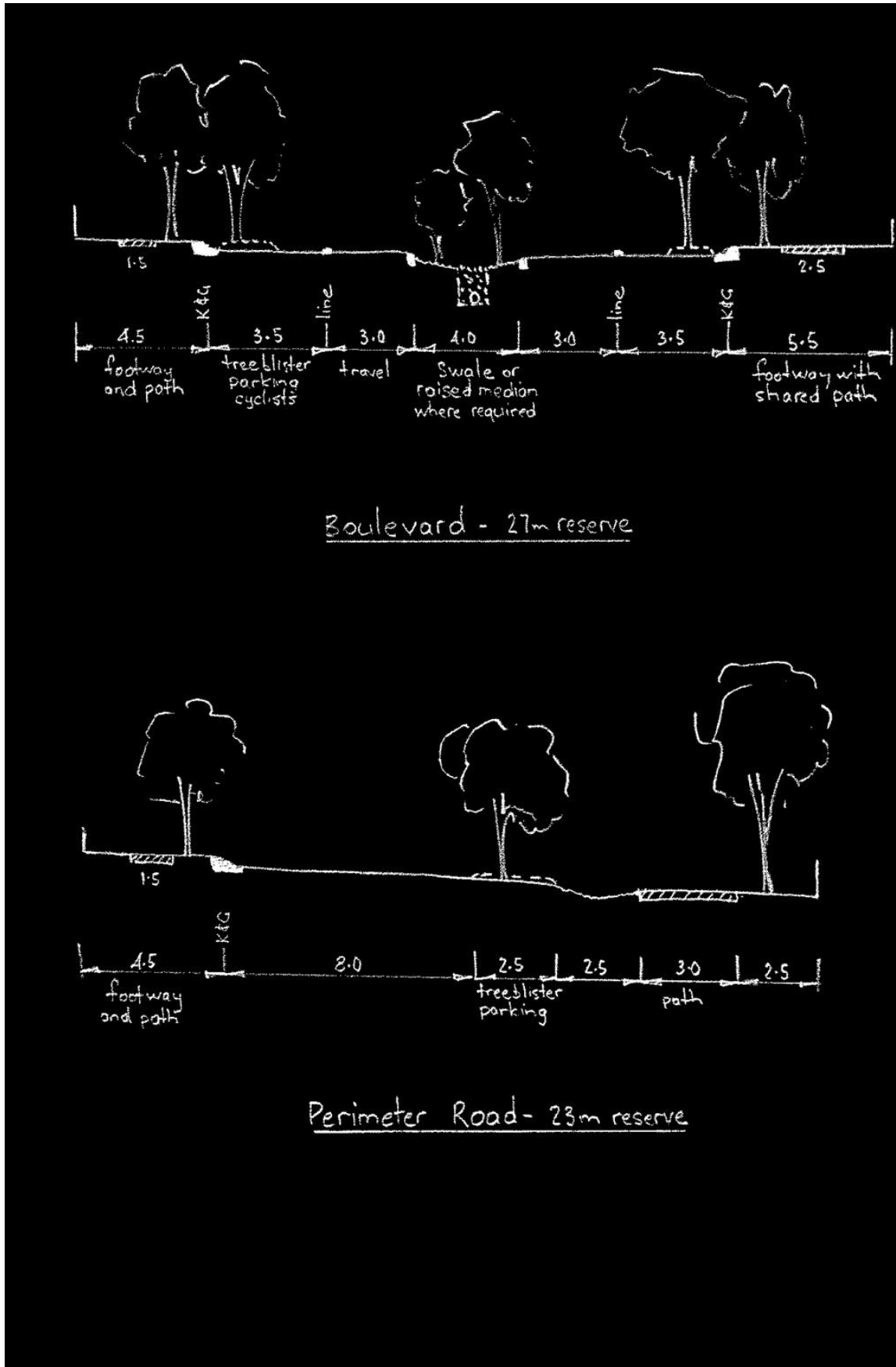


Figure 34. Thornton North - Typical cross-sections for WSUD drainage swales.

# THORNTON NORTH – WATERFORD COUNTY PRECINCT

Adopted by Council on 26/02/2008.

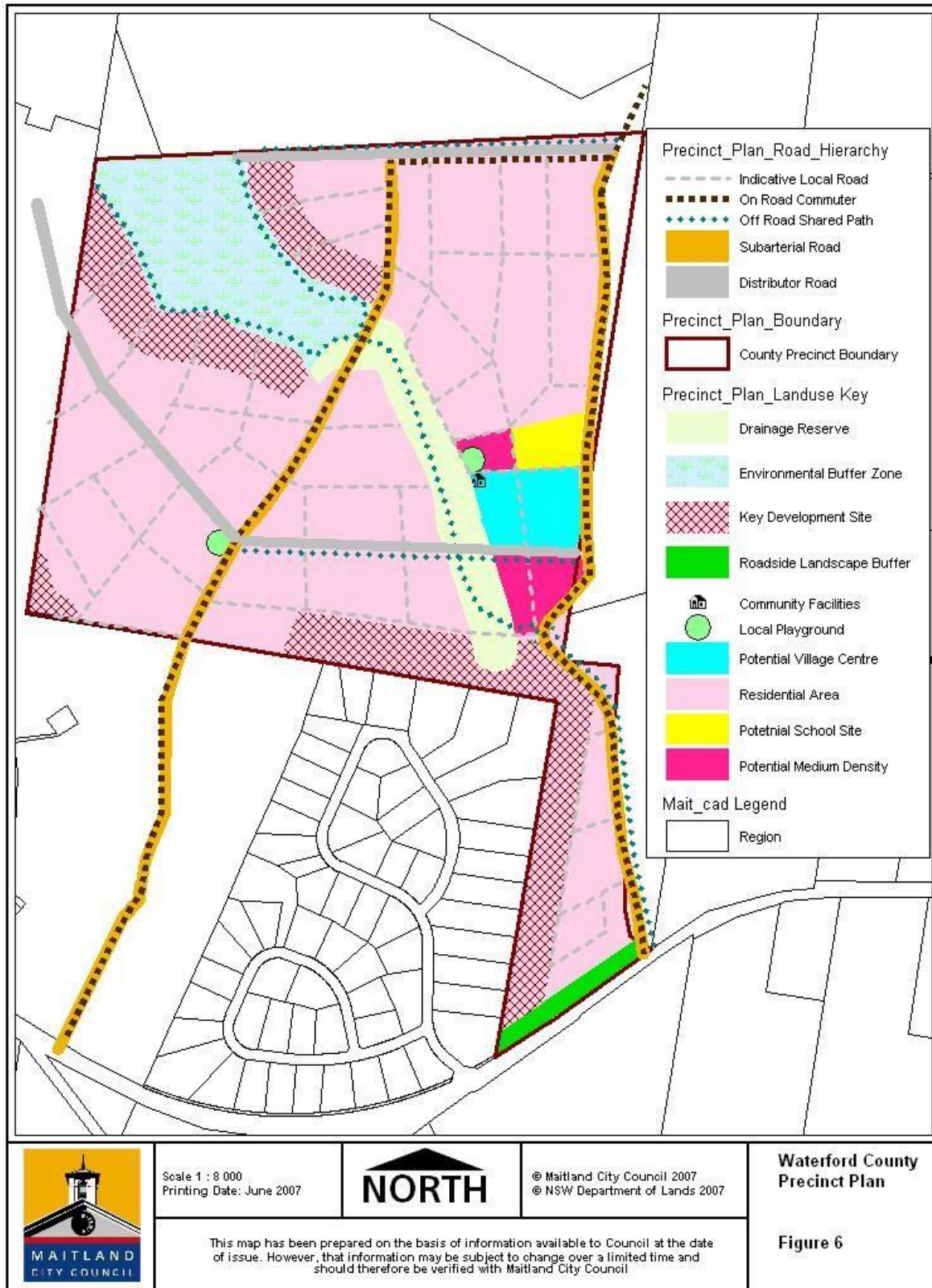


Figure 35: Waterford County Precinct Plan.



## 1. Development Requirements

All development applications shall demonstrate overall consistency with the Precinct Plan and the following specific requirements.

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. The layout, hierarchy and design of major streets within the Precinct should be generally consistent with Figure 35.
2. Pedestrian paths, cycleways and off-road shared pathways are to be provided within the Precinct to link the Chisholm Local Activity Centre, open space and community facilities and to link to adjoining precincts generally as shown in Figure 35.
3. No direct vehicular access is to be provided onto Raymond Terrace Road from lots adjoining these roads.
4. Medium density and small lot housing should only be provided in locations with high amenity, including land within 400 metres of the Chisholm Local Activity Centre, land adjoining or adjacent open space and land adjoining or adjacent to a busroute.
5. Subdivision design is to provide for lot frontages addressing streets, reserves, openspace and drainage areas.

6. Allotments backing onto reserves, open space and drainage areas are not encouraged. Where this is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour. Fencing shall not form a prominent element in the landscape of this area.

### **1.3 Overall Landscaping Strategy**

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. The overall landscaping strategy within the Precinct should be generally consistent with Figure 35.
2. A 10-metre wide landscaped buffer is required along Raymond Terrace Road.
3. Development applications for subdivision shall include detailed landscaping plans identifying appropriate street tree species, fencing treatments to Raymond Terrace Road and adjoining rural properties, and landscape/threshold treatment of key intersections.
4. Landscaping plans shall also show how open space areas and trunk drainage are to be located and landscaped.
5. A Visual and Scenic Impact Assessment is to accompany development applications for subdivisions and development that are likely to have a visual impact on the area, and may include proposed ameliorative measures to be incorporated within the development.

### **1.4 Passive and Active Recreation Areas**

#### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

### Development controls

1. Passive and active recreational space is provided generally in accordance with Figure 35.
2. Development applications for subdivision that include areas of passive and active recreational space are to include detailed designs in the overall landscaping strategy.

## **1.5 Stormwater and Water Quality Management**

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. Stormwater Management facilities are to be generally provided in accordance with Figure 35.
2. Development applications for subdivision will be accompanied by a Stormwater Management Plan identifying both quantity and quality controls.

## **1.6 Amelioration of Natural and Environmental Hazards**

There are no specific requirements as amelioration of natural and environmental hazards are already controlled by provisions in the Maitland Development Control Plan 2011.

## **1.7 Key Development Sites**

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Key Development Sites are to be located generally in accordance with Figure 35.
2. Development of, and adjoining Timberlane Estate shall be designed and located so as to minimise bulk and scale, thereby maintaining view corridors and minimising any impacts to the existing rural residential amenity.
3. Allotments immediately adjoining the western and northern boundaries of Timberlane Estate must have a minimum lot size of 1500m<sup>2</sup> and average minimum of 1800m<sup>2</sup>, with building restrictions placed on the land titles so as not to allow

any dwellings and/ or structures within 15m of boundaries adjoining Timberlane Estate and 5m side boundary setbacks, in order to maintain view corridors and minimise and adverse impacts on the rural/residential amenity.

4. Detailed landscaping strategies are to be submitted with all development applications for land adjoining Timberlane Estate, including plantings and fencing. A 5m landscape buffer is to be established and maintained along the adjoining boundary to Timberlane Estate.
5. Only single story dwellings will be permitted on lots adjoining Timberlane Estate. Appropriate building restrictions are to be placed on the title of each lot.
6. Building envelopes, detailing the required setbacks, are to be specified in any application to subdivide land adjoining Timberlane Estate.
7. A perimeter road (with development on one side only) shall be provided around the edge of the Precinct where it adjoins flood prone land or rural land.
8. An off-road shared pedestrian/cycle path shall be provided on the lower side of the perimeter road to create a continuous pathway.
9. Fencing of allotments shall be of post and wire style (or similar) so as to minimise any visual impacts of development.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.



# THORNTON NORTH – GOVERNMENT ROAD PRECINCT

Adopted by Council on 30/10/2008

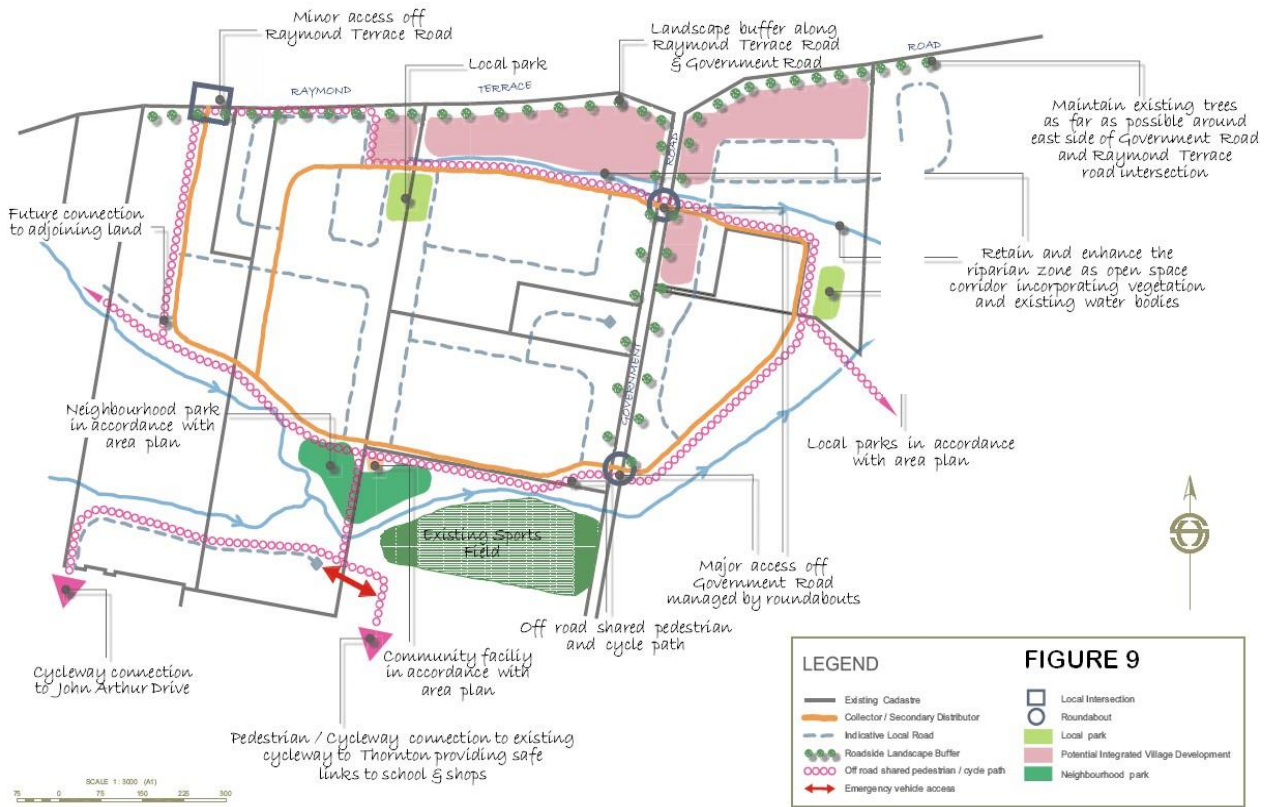


Figure 36: Thornton North - Government Road Precinct Plan.

## 1. Development Requirements

All development applications shall demonstrate consistency with the following requirements.

### 1.1 Staging Plan

#### Objectives

- To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

- All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

## 1.2 Transport and Movement

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. The layout, hierarchy and design of major streets within the Precinct should be generally consistent with Figure 36.
2. Pedestrian paths, cycleways and off-road shared pathways are to be provided within the Precinct to link open space and community facilities and to link to adjoining precincts generally as shown on Figure 36.
3. Perimeter roads incorporating landscape buffers shall be provided to Raymond Terrace Road and Government Road as shown on Figure 36.
4. No direct vehicular access is to be provided onto Government Road or Raymond Terrace Road from lots adjoining these roads.
5. Subdivision design is to provide for lot frontages addressing streets, reserves, open space and drainage areas. Allotments backing onto reserves, open space and drainage areas are not encouraged. Where this is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour. Fencing shall not form a prominent element in the landscape of this area.

## 1.3 Overall Landscaping Strategy

### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

### Development controls

1. The overall landscaping strategy within the Precinct should be generally consistent with the Figure 36 and Landscaping Plans.

2. A 10-metre wide landscaped buffer is required along Raymond Terrace Road and Government Road.
3. Development Applications for subdivision will include detailed landscaping plans identifying appropriate street tree species, fencing treatments to Raymond Terrace Road, Government Road and adjoining rural properties, and landscape/threshold treatment of key intersections.
4. Landscaping plans shall also show how open space areas and trunk drainage are to be located and landscaped.
5. A Visual and Scenic Impact Assessment is to accompany Development Applications for subdivisions and development that are likely to have a visual impact on the area, and may include proposed ameliorative measures to be incorporated within the development.

#### **1.4 Passive and Active Recreation Areas**

##### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

##### Development controls

1. Passive and active recreation space shall be provided generally in accordance with Figure 36.
2. Development applications for subdivision that include areas of passive and active recreational space (as identified in the Precinct and Landscaping Plans) are to include detailed designs in the overall landscaping strategy.

#### **1.5 Stormwater and Water Quality Management**

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

##### Development controls

1. Stormwater Management facilities are to be generally provided in accordance with the Landscaping Plan.

2. Development applications will be accompanied by a Stormwater Management Plan which is generally consistent with the report by *Peter Sullivan and Associates* (May, 2008) establishing the stormwater management strategy for the Precinct.

## 1.6 Amelioration of Natural and Environmental Hazards

There are no specific requirements as amelioration of natural and environmental hazards are already controlled by provisions in the Maitland Development Control Plan 2011.

## 1.7 Key Development Sites

### *Cnr Raymond Terrace Road and Government Road*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. Any development proposed on land at the intersection of Raymond Terrace Road and Government Road shall be integrated with the existing vegetation community and provide for the retention of the majority of trees. A site specific landscape plan shall accompany any development application for this area addressing retention, integration and enhancement of the vegetation community.
2. The 10-metre wide landscape buffer required for lots adjoining Government Road and Raymond Terrace Road shall be contained wholly within the affected lots and details shall be provided in a landscape plan with any development application. Where a supporting acoustic report for the development of the land identifies a requirement for noise attenuation, it should generally include a combination of earth mounding and fencing and details are also to be provided in the landscape plan.
3. Fencing of allotments along the boundary of Raymond Terrace Road or Government Road, where applicable, shall be of consistent materials and colour and shall form an integral part of the landscape plan provided with any development application. Fencing should not be a prominent element in the landscape along either road corridor.

### *Rural Land Flood Fringe Interface*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A perimeter road (with development on one side only) shall be provided around the edge of the Precinct where it adjoins flood prone land or rural land.



2. An off-road shared pedestrian/cycle path shall be provided on the lower side of the perimeter road to create a continuous pathway.
3. Any fencing of allotments forward of the building line shall be of an open style of consistent design, material and colour so as to not dominate the landscape and minimise visual impact.
4. Additional landscaping to the perimeter of development fronting the floodplain/rural land east of Government Road shall be provided to filter views of the new development across the floodplain. Details shall be provided in a landscape plan with any development application.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

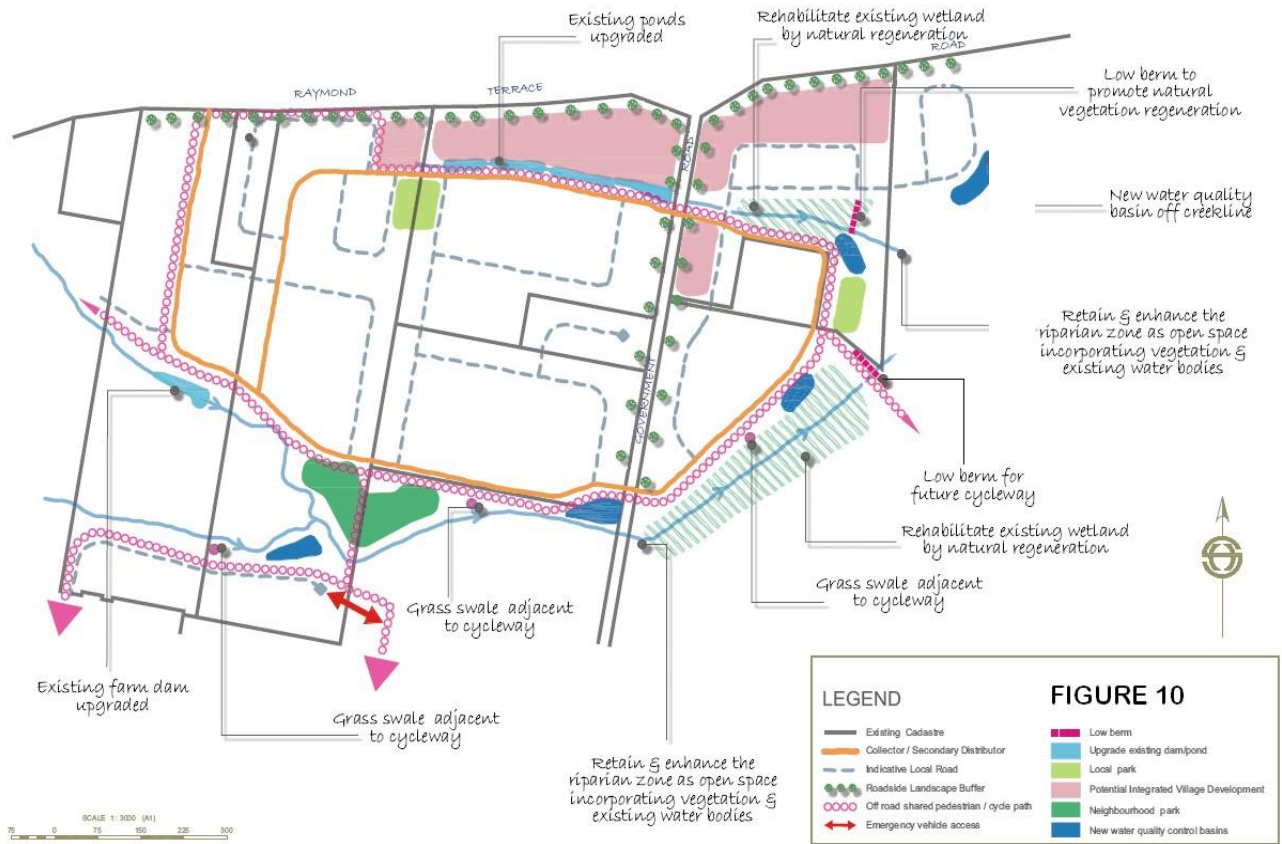


Figure 37: Thornton North - Government Road Precinct - Landscaping Plan.

# THORNTON NORTH – SOMERSET PARK EAST PRECINCT

Adopted by Council on 05/03/2009

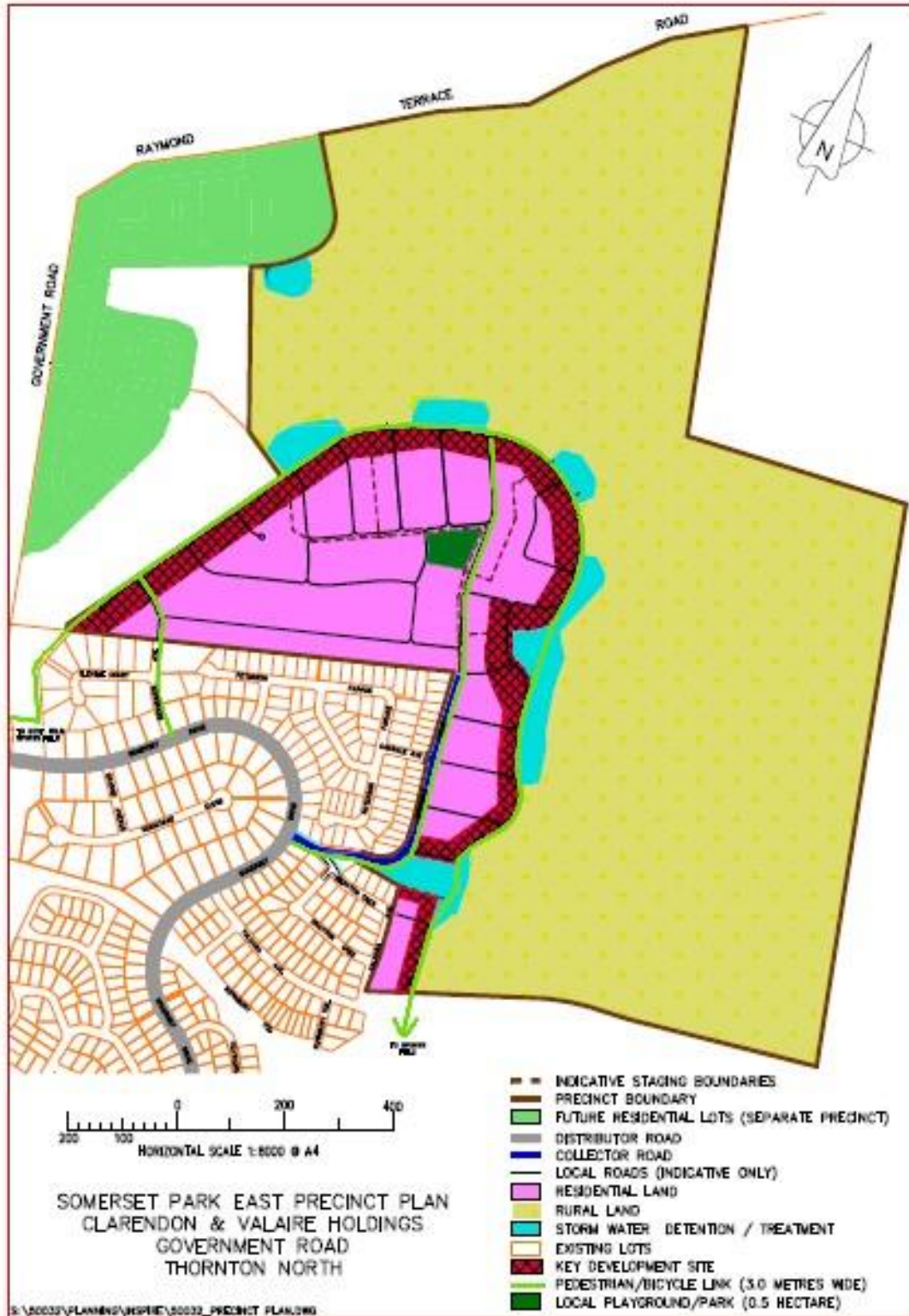


Figure 38: Somerset Park East Precinct Plan.

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. The layout, hierarchy and design of major streets within the Precinct should be generally consistent with the Figure 38.
2. Pedestrian paths, cycleways and off-road shared pathways are to be provided within the Precinct to link open space and community facilities and to link to adjoining precincts generally as shown on Figure 38.
3. Medium density and small lot housing should only be provided in locations with high amenity, including land adjoining or adjacent open space and land adjoining or adjacent to a bus route.
4. Subdivision design is to provide for lot frontages addressing streets, reserves, open space and drainage areas. Allotments backing onto reserves, open space and drainage areas are not encouraged. Where this is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour. Fencing shall not form a prominent element in the landscape of this area.



### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. Development Applications for subdivision will include detailed landscaping plans identifying appropriate street tree species, fencing treatments to adjoining rural properties, and landscape/threshold treatment of key intersections.
2. Landscaping plans shall also show how open space areas and trunk drainage are to be located and landscaped.
3. A Visual and Scenic Impact Assessment is to accompany Development Applications for subdivisions and development that are likely to have a visual impact on the area, and may include proposed ameliorative measures to be incorporated within the development.

### 1.4 Passive and Active Recreation Areas

#### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

#### Development controls

1. The network of passive and active recreational areas should be provided generally in accordance with Figure 38.
2. Development applications for subdivision that include areas of passive and active recreational space are to include detailed designs in the overall landscaping strategy.

## 1.5 Stormwater and Water Quality Management

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. Development applications for subdivisions are to be accompanied by a Stormwater Management Strategy identifying both quality and quantity controls.
2. Stormwater management facilities such as swales, bio-retention (dry) basins and constructed wetlands are to be positioned and maintained "off-line".

## 1.6 Amelioration of Natural and Environmental Hazards

There are no specific requirements as amelioration of natural and environmental hazards are already controlled by provisions in the Maitland Development Control Plan 2011.

## 1.7 Key Development Sites

### *Rural Land Flood Fringe Interface*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. A perimeter road (with development on one side only) shall be provided around the edge of the Precinct where it adjoins flood prone land or rural land.
2. A 3.0m wide off-road shared pedestrian/cycle path shall be provided on the lower side of the perimeter road (except in Stage 1 off Yaldara Avenue where it shall be provided on the upper side) to create a continuous pathway linking with existing and proposed pedestrian networks and public open space.
3. Additional landscaping to the perimeter of development fronting the floodplain/rural land and to the proposed water management basins shall be provided to filter views of the new development across the floodplain. Details shall be provided in a landscape plan with any relevant development application.
4. Any fencing of allotments forward of the front building line shall be of an open style of consistent design, material and colour so as to not dominate the landscape and minimise visual impact.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

# THORNTON NORTH – CHISHOLM WEST PRECINCT

Adopted by Council on 12/04/2011

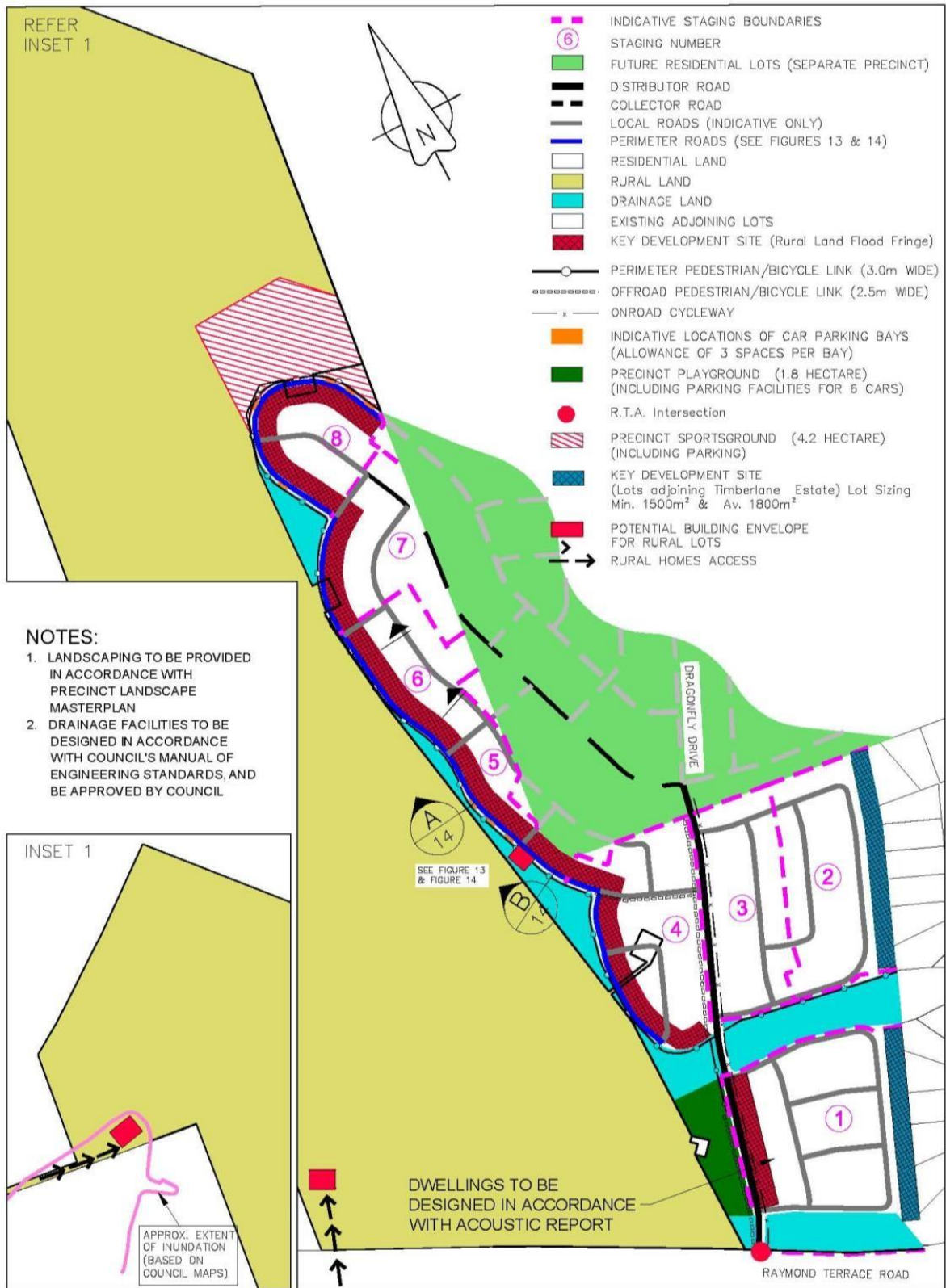


Figure 39: Chisholm West Precinct Plan.



## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. The layout, hierarchy and design of major streets within the Precinct is to be generally consistent with Figure 39.
2. Adjustments to the location of local roads will be considered as part of the relevant development application where it can be demonstrated they result in improved lot layout and orientation, better integration with adjoining subdivisions and greater regard to the topography.
3. A distributor road shall be provided through the site in the location identified in Figure 39. The road is to have a total minimum width of 23m (4.5m/13m/5.5m) and is to make provision for services, recycled water (within a suitable footway allocation), a 2.5m off-road cycleway on the western side, a 1.5m footpath on the eastern side and an on-road commuter cycleway.
4. A signalised intersection is to be provided at the intersection of Raymond Terrace and the distributor road in accordance with the Thornton North Section 94 Contributions Plan and the requirements of the NSW Roads and Traffic Authority, generally in the location shown on Figure 39.
5. Pedestrian paths, cycleways and off-road shared pathways are to be provided within the Precinct to link the residential areas to the proposed playground and sports field and to link to adjoining precincts generally as shown on Figure 39.

6. Subdivision design is to provide for lot frontages addressing streets, reserves, open space and drainage areas. Allotments backing onto reserves, open space and drainage areas are not encouraged. Where this is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour. Fencing shall not form a prominent element in the visual landscape of this area.
7. Subdivision layout and lot orientation should maximise privacy, private open space areas, solar access and energy efficiency. In this regard, minor streets should generally be aligned east/west, subject to site constraints such as topography.

### **1.3 Overall Landscaping Strategy**

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. Development Applications for subdivision will include a general design of how the open space areas are to be incorporated into the subdivision of the precinct.
2. Landscaping of the drainage land adjacent to Raymond Terrace Road is to be undertaken in accordance with the landscape plan for the Chisholm West Precinct.

### **1.4 Passive and Active Recreation Areas**

#### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

#### Development controls

1. A precinct sportsground at 4.2ha, a precinct playground at 1.8ha and a local playground at 0.5ha are to be provided within this Precinct in accordance with the Thornton North Section 94 Contributions Plan and the general locations identified in the Precinct Plan.

## 1.5 Stormwater and Water Quality Management

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. Stormwater Management facilities such as swales, detention basins and constructed wetlands are to be generally provided within the areas identified on Figure 38.
2. Development applications for subdivision are to be accompanied by a Stormwater Management Plan identifying both quantity and quality controls in accordance with Council's Manual of Engineering Standards (MOES).
3. All stormwater facilities are to be dedicated to Council as part of the relevant development application.

## 1.6 Amelioration of Natural and Environmental Hazards

There are no specific requirements as amelioration of natural and environmental hazards are already controlled by provisions in the Maitland Development Control Plan 2011.

## 1.7 Key Development Sites

### *Land adjoining Timberlane Estate*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Development of land adjoining Timberlane Estate should be designed and located so as to minimise bulk and scale, thereby maintaining view corridors and minimising any impacts to the existing rural residential amenity.
2. Allotments immediately adjoining the western and northern boundaries of Timberlane Estate must have a minimum lot size of 1500m<sup>2</sup> and average minimum of 1800m<sup>2</sup>. Building restrictions are to be placed on the land titles of the affected properties prohibiting the erection of any dwellings within 15m of boundaries adjoining Timberlane Estate and 5m side boundary setbacks, in order to maintain view corridors and minimise any adverse impacts on the rural/residential amenity.

3. Building envelopes, detailing the required setbacks, are to be specified in any application to subdivide land adjoining Timberlane Estate.
4. Detailed landscaping strategies are to be submitted with all development applications for land adjoining Timberlane Estate, including plantings and fencing. A 5m landscape buffer is to be established and maintained along the adjoining boundary to Timberlane Estate. A restriction is to be placed on the title of affected properties indicating no structures are to be located within this area.
5. Only single story dwellings will be permitted on lots adjoining Timberlane Estate, to maintain view lines and amenity. Appropriate building restrictions are to be placed on the title of each lot.

### *Rural Land Flood Fringe Interface*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A perimeter road (with development on one side only) shall be provided around the edge of the Precinct where it adjoins flood prone land, rural or drainage land in accordance with Figure 38 and Figure 40 and Figure 41.
2. A 3.0m wide shared pathway shall be provided on the lower (non-development) side of the perimeter road in accordance with Figures 1 and 2. This pathway is to extend through to the boundary of the Timberlane Estate as shown on Figure 40 and Figure 41.
3. Any fencing of allotments forward of the front building line shall be an open style of consistent design, material and colour so as not to dominate the landscape and minimise visual impact.
4. Landscaping shall be provided along the perimeter road and to development fronting the floodplain/rural land and the proposed water management basins to filter views of the new development across the floodplain.
5. Details shall be provided in the landscape plan submitted with the applicable development application.

### *Flood Fringe Rural Allotments*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. The Precinct Plan identifies suitable sites (building envelopes) for future dwellings on large rural allotments, which have been located to maximise views, amenity and effective management of the floodplain.



### *Land adjoining Raymond Terrace Road and Main Northern Railway*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A 10m wide landscape buffer is to be provided within the drainage reserve adjoining Raymond Terrace Road and shall include a combination of earth mounding, acoustic fencing and vegetation. Plans showing details of this treatment are to be submitted with any development application to subdivide Stage 1 of this Precinct.
2. Residential subdivision and associated development is to be designed so as to comply with the relevant standards and criteria for noise and vibration.
3. An acoustic report is to be submitted with any development application for the subdivision of land adjacent to Raymond Terrace Road detailing the necessary measures to mitigate the impact of noise from Raymond Terrace Road and the Main Northern Railway line.

#### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

#### **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

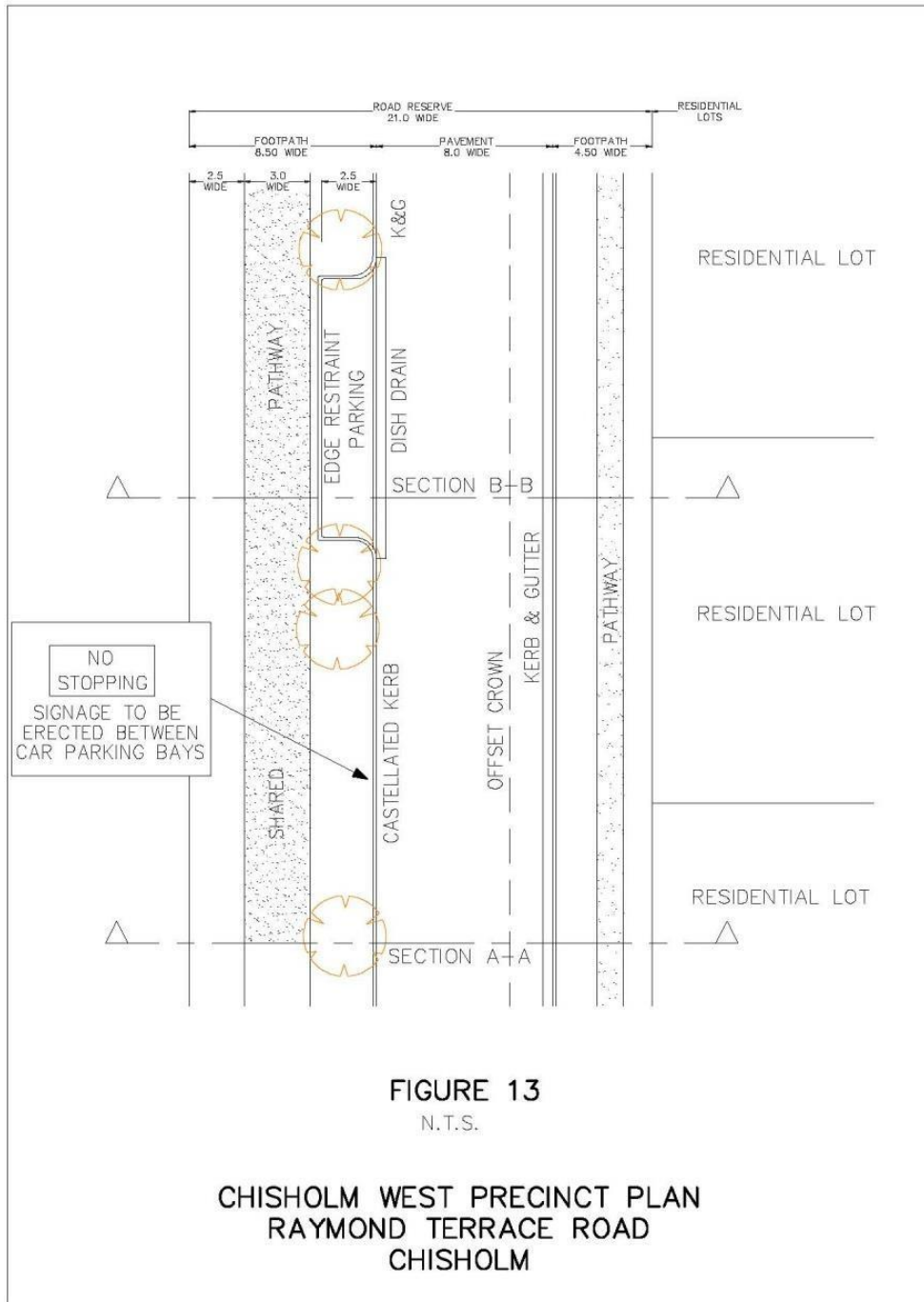


FIGURE 13  
N.T.S.

CHISHOLM WEST PRECINCT PLAN  
RAYMOND TERRACE ROAD  
CHISHOLM

Figure 40: Chisholm West Precinct Plan - Raymond Terrace Road.

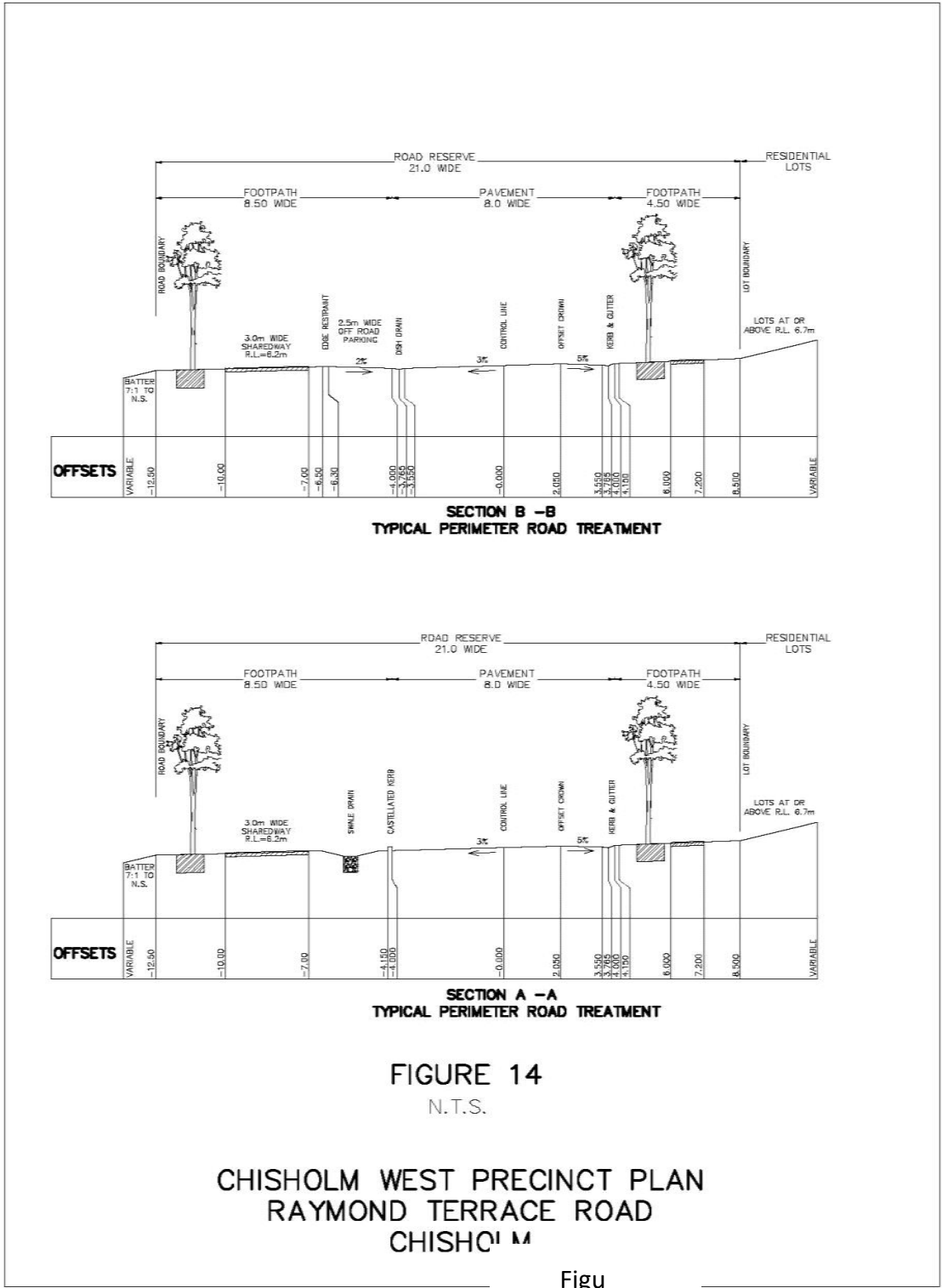


Figure 41: Chisholm West Precinct Plan - Raymond Terrace Road.

# WATERFORD COUNTY NORTH PRECINCT

Adopted by Council on 11/09/2018

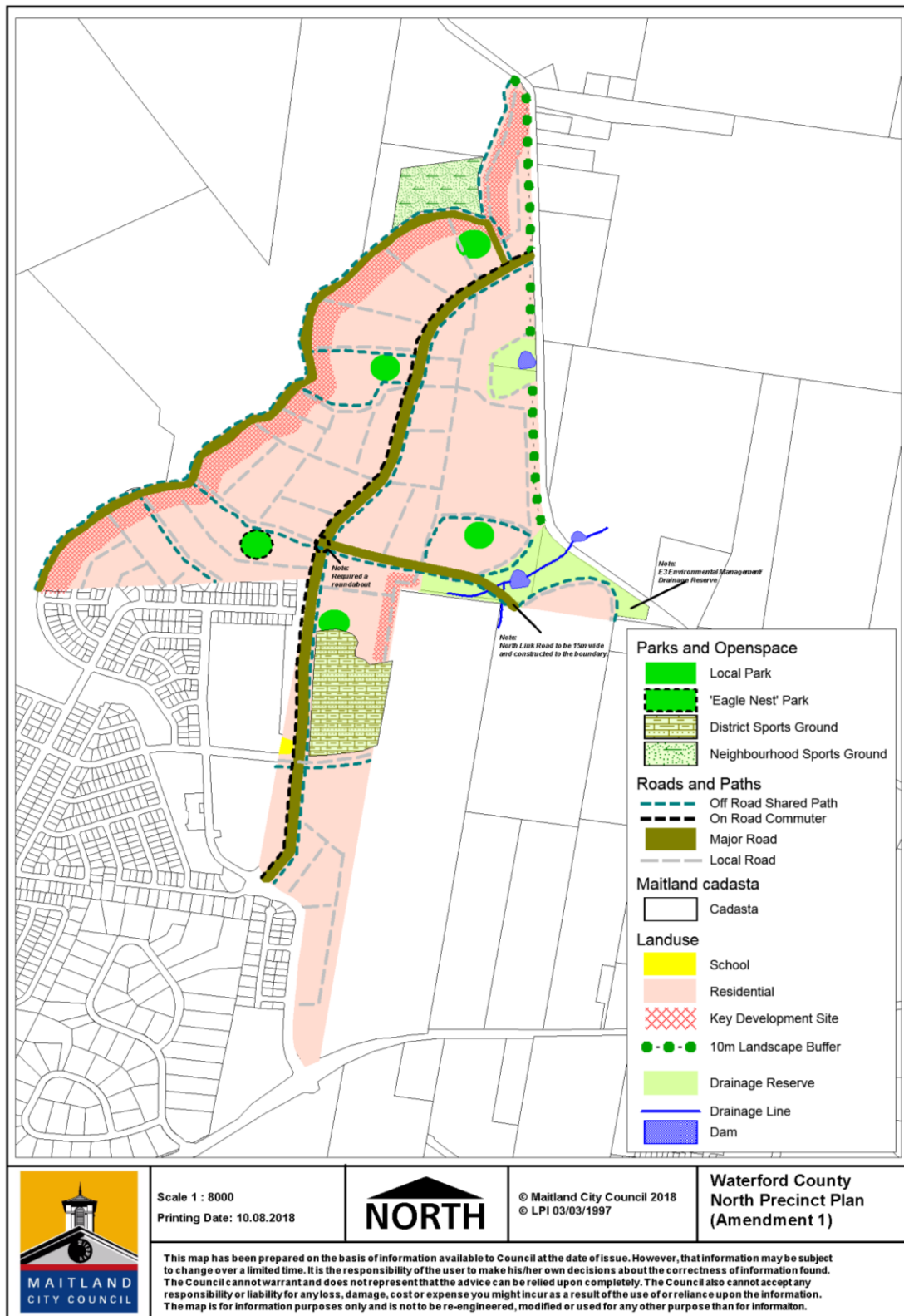


Figure 42: Waterford County North Precinct Plan.



## 1. Development Requirements

All development applications shall demonstrate overall consistency with the precinct plan and the following specific requirements.

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staging plan, where the development is intended to be released sequentially.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. The layout, hierarchy and design of major streets within the precinct should be generally consistent with the precinct plan and Figure 43.
2. Pedestrian paths, cycle ways and off-road shared pathways are to be provided within the precinct generally as shown on the precinct plan. The pedestrian and cycle network should link the Chisholm local activity centre with open space and community facilities and link to adjoining precincts.
3. Subdivision design is to provide for lot frontages addressing streets, reserves, open space and drainage areas. Allotments backing onto reserves, open space, environmental land and drainage areas are discouraged. Where this is unavoidable, boundary fencing shall be of an open style and of consistent materials and colour. Fencing shall not form a prominent element in the landscape of this area.

4. Suitable transport access and connectivity within the site and to adjoining areas shall be maintained at all times for motor vehicles, pedestrians, cyclists and public transport providers.
5. The transport movement hierarchy shall identify bus transport routes within the precinct.
6. North Link Road to be 15m wide and constructed to the boundary.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. The overall landscaping strategy within the precinct should be generally consistent with the precinct plan.
2. A 10m wide landscaped buffer is to be provided within the rear of properties adjoining McFarlanes Road (refer to Figure 44). Existing mature trees within the buffer to be retained, where possible.
3. The respective landscaped buffer adjoining the McFarlane Road is to wholly within the affected allotments, with the maintenance of the landscape buffer being the responsibility of the individual owners of the respective allotments. Covenants are to be placed on affected land ensuring ongoing preservation and maintenance of the approved landscaping and fencing treatments on all lots that adjoin McFarlanes Road.
4. Fencing of allotments along the boundary of McFarlanes Road shall use consistent materials and colour and be landscaped both forward and behind the fence (refer to Figure 45). Fencing not required where the boundary coincides with a proposed drainage reserve.
5. Side boundary fencing located within the landscaped buffer is to be similar to McFarlanes Road's boundary fencing treatment.
6. Private maintenance gates are to be provided in the boundary fence within each of the proposed lots that adjoin McFarlanes Road.
7. Development applications for subdivision will include detailed landscaping plans that:
  - identify appropriate street tree species;
  - illustrate fencing treatments to adjoining rural properties;

- illustrate landscape/threshold treatment of key intersections;
  - demonstrate how open space areas and trunk drainage are to be located and landscaped; and
  - demonstrate how existing mature trees are retained and protected in the landscape.
8. Existing significant mature trees should be retained, where possible.

#### **1.4 Passive & Active Recreational Areas**

##### Objectives

1. Neighbourhoods have conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

##### Development controls

1. Development applications for subdivision that include areas of passive and active recreational space as identified in the precinct plan are to include detailed designs in the overall landscaping strategy.
2. The “Eagle Nest” local park is to be developed for passive open space recreational purposes. A landscape plan is to be developed showing enhancement of the area with local tree species.

#### **1.5 Stormwater & Water Quality Management Controls**

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

##### Development controls

1. Development applications for subdivision will be accompanied by a stormwater management plan identifying both quantity and quality controls.

## 1.6 Amelioration of Natural & Environmental Hazards

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from incompatible land uses, including road and rail corridors and extractive industries.

### Development controls

1. Subdivision design and lot layout must ensure that any future dwelling will not be adversely affected by noise, dust or vibration from activities generated by the adjoining quarry operations. Development applications for dwellings are to address mitigating measures where appropriate.
2. Development Applications shall include subdivision designs that consider the bushfire risk in the locality, in accordance with the NSW Rural Fire Service guidelines current at that time. Submission of a bushfire risk assessment will be a minimum requirement for any development application involving bushfire prone land within the plan.
3. Subdivision design shall ensure that Asset Protection Zones (APZs) are contained wholly within the boundaries of residential allotments (and perimeter roads where considered safe and practical), and do not extent into environmentally zoned where clearing would be required.
4. Development adjoining the E3 Environmental Management zone must be designed and planned to ensure any Asset Protection Zones and the like are not required or needed in the E3 zone.
5. Development Applications will need to investigate soil salinity levels, soil structure/ stability and Acid Sulphate Soils as part of geotechnical investigations associated with the site.

## 1.7 Key Development Sites

Key development sites are to be located generally in accordance with the precinct plan.

### *Flood Fringe/Rural and Environmental Zoned Land Interface*

### Objectives

1. Detailed urban design controls are provided for significant development sites.



### Development controls

1. A perimeter road (with development on one side only) shall be provided around the edge of the precinct where it adjoins flood prone land or rural land.
2. A 3.0m wide off-road shared pedestrian/cycle path shall be provided on the lower side of the perimeter road to create a continuous pathway linking with existing and proposed networks and public open space.
3. Additional landscaping to the perimeter of development fronting the floodplain/rural land and to the proposed water management basins shall be provided to filter views of the new development across the floodplain. Details shall be provided in a landscape plan with any relevant development applications.
4. Any fencing of allotments forward of the front building line shall be of an open style of consistent design, material and colour so as to not dominate the landscape and minimise visual impact.

### *Clay Quarry Site Interface*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. An impact assessment shall be undertaken by a suitably qualified consultant to assess the impact of the quarry and associated activities on the precinct. Any mitigation measures necessary to address noise, vibration and dust impacts on the precinct must be incorporated in any development application and apply to affected development.

## **1.8 Residential Densities**

#### Objectives

1. To encourage higher density living around transport, open space and service nodes.

#### Development controls

1. Any dual occupancy, medium density or integrated housing developments within the precinct are encouraged to be located and designed around areas of high amenity, being sites adjacent to open space, water bodies and bus routes.

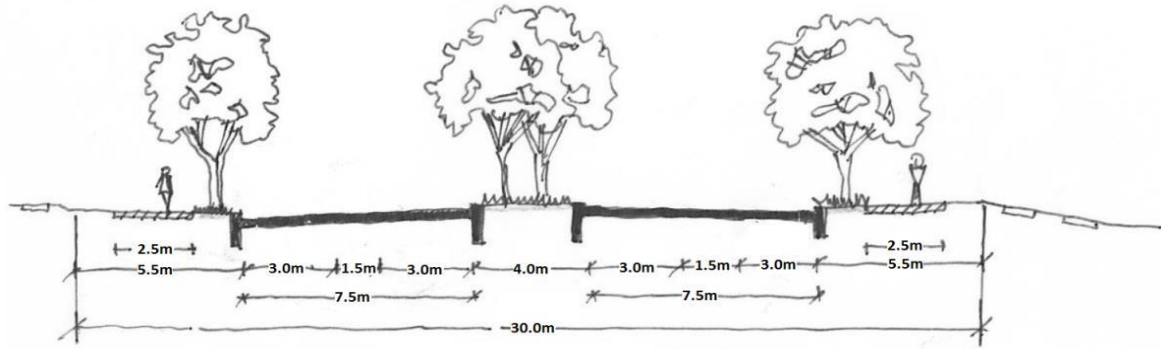
## 1.9 Flora and Fauna

### Objectives

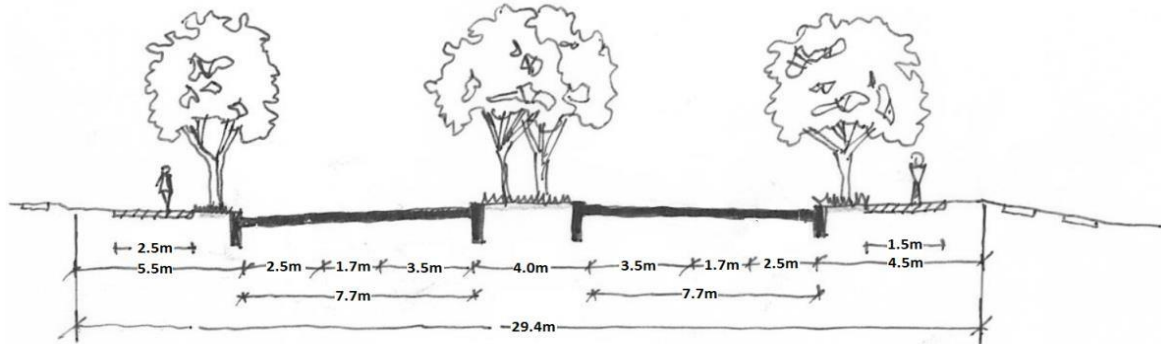
1. To provide for the management and enhancement of vegetation, habitat and associated fauna.

### Development controls

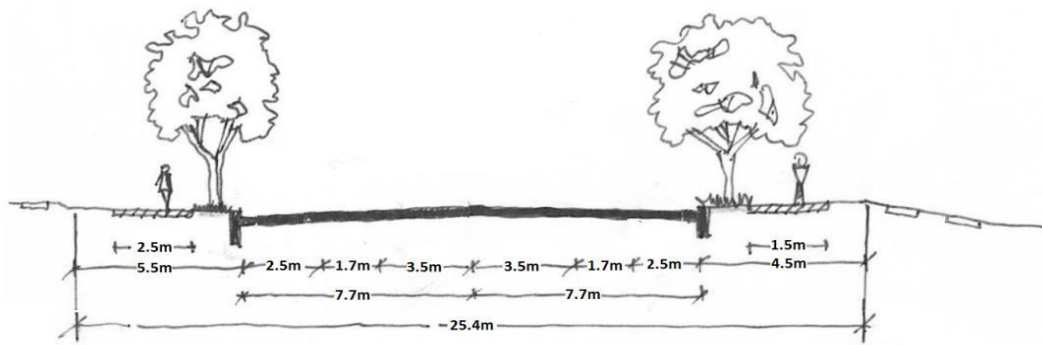
1. Development Applications are to include a detailed assessment of the flora and fauna characteristics of the site prepared by a suitably qualified ecologist. Such an assessment shall consider retention of hollow bearing trees, where practicable.
2. Riparian buffers shall be maintained around identified watercourses, in accordance with relevant NSW Office of Water guidelines pertaining to minimum buffer widths.



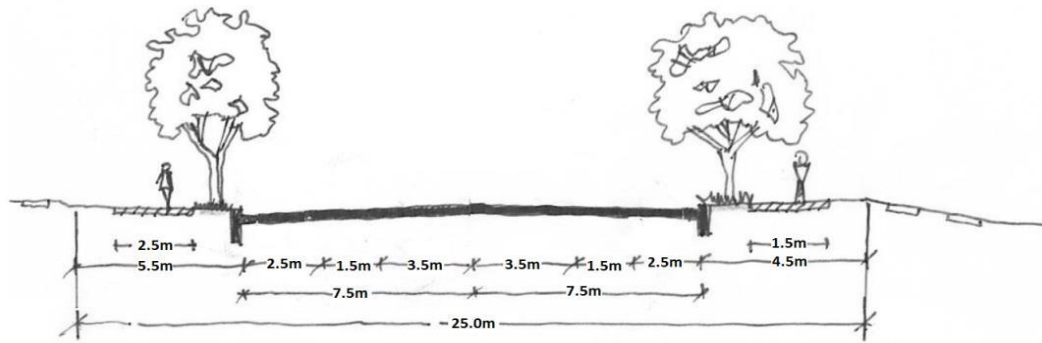
SETTLER BOULEVARD  
(RAYMOND TERRACE RD TO ROUNDABOUT)  
SUB-ARTERIAL WITH MEDIAN



SETTLER BOULEVARD  
(ROUNDABOUT TO DRAGON FLY DRIVE)  
SUB-ARTERIAL WITH MEDIAN



SETTLER BOULEVARD  
(DRAGONFLY DRIVE TO NORTH LINK ROAD)  
SUB-ARTERIAL



SETTLER BOULEVARD  
(NORTH LINK ROAD TO McFARLANES ROAD)  
DISTRIBUTER - PRIMARY

Figure 43: Settlers Boulevard Cross sections.

10m Landscape Buffer Treatment Diagram

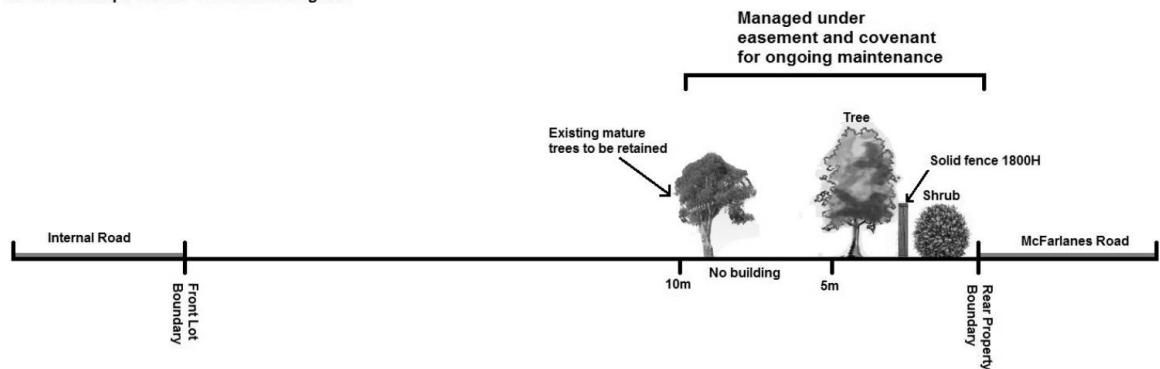


Figure 44: 10m Landscape Buffer Treatment (McFarlanes Road)

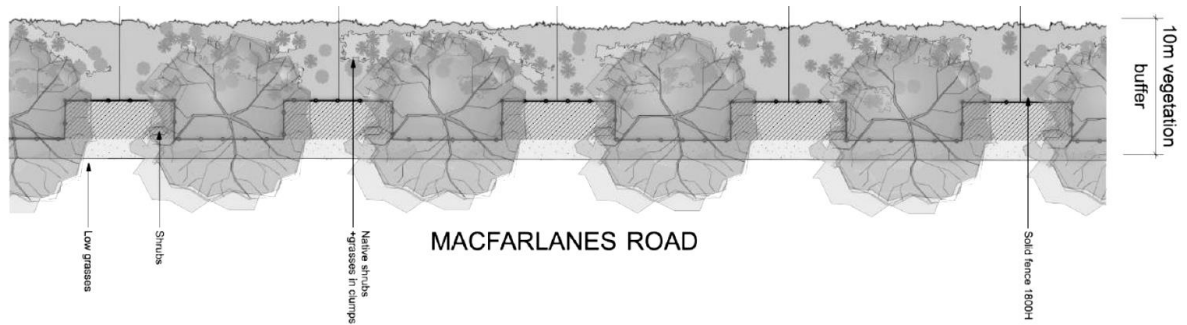


Figure 45: Boundary Fencing Treatment (McFarlanes Road)



# RAYMOND TERRACE ROAD - EASTERN PRECINCT PLAN

Adopted by Council 26 May 2015

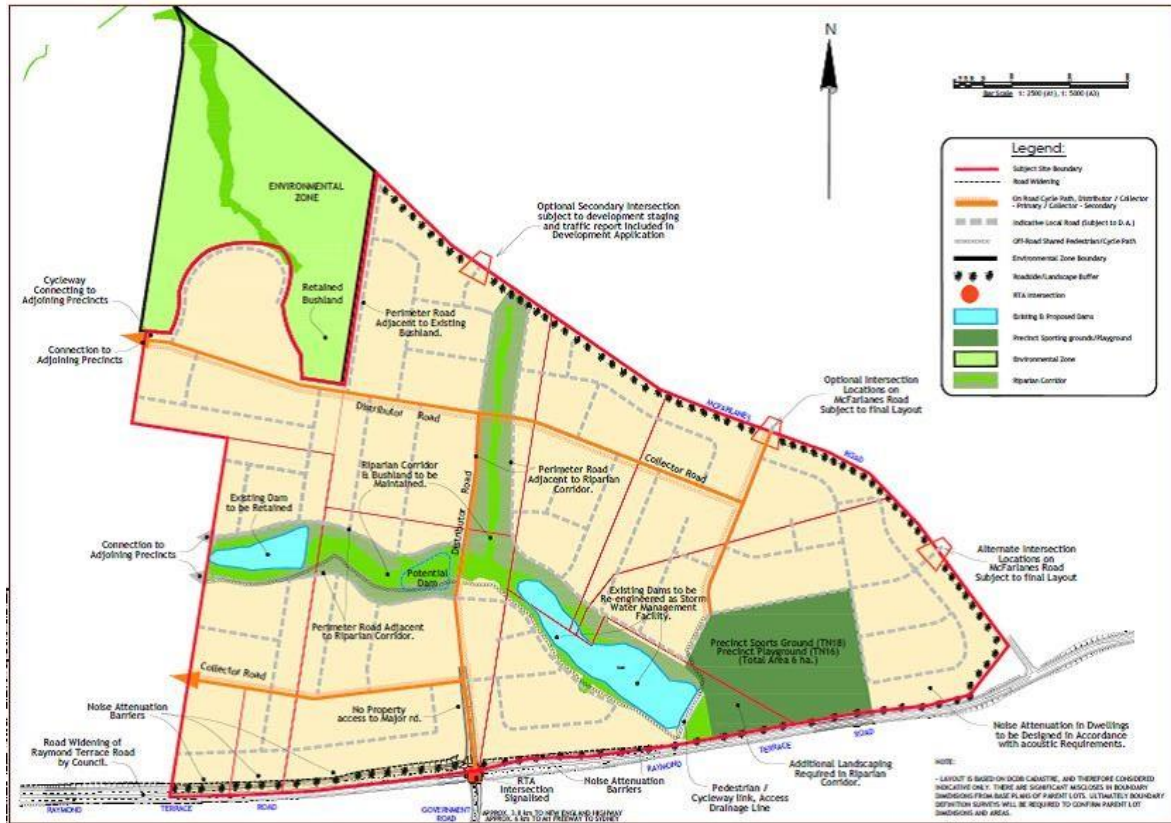


Figure 46: Raymond Terrace Road - Eastern Precinct Plan.

## 1.1 Staging Plan

### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

## 1.2 Transport and Movement

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.

2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. The layout, hierarchy and design of major streets within the precinct should be generally consistent with Figure 46.
2. Adjustments to the location of local roads will be considered as part of the relevant development application where it can be demonstrated they result in improved lot layout and orientation, better integration with adjoining subdivisions and greater regard for the natural environment.
3. Pedestrian paths, cycleways and off-road shared pathways are to be provided within the Precinct to link the residential areas to proposed playground and sports field and to link to adjoining precincts generally as shown on Figure 46.
4. A distributor road shall be provided through the site in the location identified on Figure 46.
5. A perimeter road incorporating pedestrian and cycle facilities provided adjacent to the edge of the riparian corridors, E3 Environmental Management zone and open space in accordance with Figure 46.
6. A signalised intersection is to be provided at the intersection of Raymond Terrace Road, Government Road and the distributor road in accordance with the Thornton North S.94 Plan.
7. Subdivision design is to provide for lot frontages addressing streets, reserves, open space and drainage land. Allotments backing onto reserves, open space and drainage land are not encouraged

## **1.3 Overall Landscaping Strategy**

### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To establish an attractive visual appearance to the development by street tree planting and providing additional landscaping in public areas.
3. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
4. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
5. To provide landscaped buffers around the site perimeter adjoining major roads.
6. To provide a quality landscaped gateway to this part of the Thornton North Release Area.

7. To retain appropriate riparian corridors and integrate them with open space.

#### Development controls

1. Landscaping shall be provided generally in accordance with Figure 46.
2. A detailed landscape strategy is to be provided to address key entry points to the development, buffer areas, drainage and open space areas.
3. A vegetation management plan is to be developed for the riparian corridors detailing management and enhancement of vegetation communities and habitat.
4. The vegetation management plan is to specifically address feed tree species associated with the squirrel glider habitat and include a “nest box” program.

### **1.4 Passive and Active Recreation Areas**

#### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

#### Development controls

1. The network of passive and active recreational areas should be provided generally in accordance with Figure 46.
2. A neighbourhood sportsground, a neighbourhood playground, and community facilities building are to be provided within the East Precinct in accordance with the Thornton North S.94 Plan and general locations identified in Figure 46.

### **1.5 Stormwater and Water Quality Management**

#### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.
4. To provide a coordinated stormwater management system for the whole of the precinct.

### Development controls

1. Development applications for subdivisions are to be accompanied by a stormwater management strategy identifying both quality and quantity controls in accordance with Council's MOES and to address timing of construction.
2. Stormwater management facilities such as swales, detention basins and constructed wetlands are to be provided as necessary within areas designated as drainage land on Figure 46.
3. All stormwater facilities are to be dedicated to Council as part of the subdivision process.

## **1.6 Amelioration of Natural and Environmental Hazards**

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from road traffic associated with Raymond Terrace Road.

### Development controls

1. Residential subdivision and associated development is to be designed so as to comply with the relevant standards and criteria for noise and vibration.
2. A 10m wide landscape buffer is to be provided within the rear of properties adjoining Raymond Terrace Road and shall include a combination of earth mounding, acoustic fencing and vegetation. Details are to be submitted with any DA for subdivision of the land. Covenants are to be placed on affected land ensuring ongoing maintenance of the required landscaping and associated structures.
3. Individual developments adjacent to Raymond Terrace Road will require an acoustic report for the development of the land that identifies detailed requirements for noise attenuation, including earth mounding, fencing and building controls.
4. Development on bushfire prone land shall be assessed and designed in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.
5. Land within the flood planning area shall address clause 7.3 of the Maitland Local Environmental Plan 2011.
6. All development applications shall demonstrate compliance with the requirements of SEPP 55 - Remediation of Land.



## 1.7 Key Development Sites

### *Raymond Terrace Road/Government Road Intersection Entry*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.
2. To ensure that development does not result in significant detrimental visual impact at a key gateway to the Thornton North release area.

#### Development controls

1. The 10-metre wide landscape buffer required for lots adjoining Raymond Terrace Road shall be contained wholly within the affected lots and details shall be provided in a landscape plan with any development application. Where a supporting acoustic report for the development of the land identifies a requirement for noise attenuation, this is generally to include a combination of earth mounding and fencing with details to be provided in landscape plan.
2. Fencing of allotments along the boundary of Raymond Terrace Road, shall be of consistent materials and colour and shall form an integral part of the landscape plan provided with any development application. Fencing should not be a prominent element in the landscape along the road corridor.
3. Landscaping is to integrate with proposed open space and community facilities to be provided on both sides of the entry road.

### *E3 Environmental Management Zone Land*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.
2. To provide for the management and enhancement of vegetation, habitat and associated fauna.

#### Development controls

1. A vegetation management plan is to be developed and approved for the E3 zone detailing maintenance and enhancement of the existing vegetation community on site.
2. Such a plan shall incorporate mechanisms to support and improve the squirrel glider population of the area in association with any use of the land.

## 1.8 Residential Densities

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## CHISHOLM NEIGHBOURHOOD CENTRE

Adopted by Council 28 February 2017

Located within one of Maitland's newest residential neighbourhoods, the Chisholm Neighbourhood Centre is important to contribute to the development of a sustainable community. The Chisholm Neighbourhood Centre will provide for the convenience needs of the Thornton North Urban Release Area.

The centre is located on the street block bound by the following existing and proposed roads:

- Settlers Boulevard Extension.
- Proposed Driveway (unnamed).
- Tigerhawk Drive.
- Heritage Drive.

The centre's central location will enhance accessibility supported by public transport, an adequate road network and safe, pleasant pedestrian and cycleway links. The centre will provide a central place where residents can meet and connect will foster a strong sense of place. The centre will help defined the character and identify of the suburb and urban release area.

### ***Guiding design principles***

The following guiding principles will inform the future design of the neighbourhood centre:

- Spaciousness, reflective of local/regional character.
- Accessibility and convenience.
- Innovative architecture and an urban design which integrates with the master planned nature of the Precinct.
- Creation of a distinctive sense of place reflective of its topography, outlook and enhances the Centre's relationship to neighbouring land uses.

## **1. Development Requirements**

### **1.1 Staging**

#### Objectives

1. A new planned neighbourhood centre is created to support the growing residential population of the Thornton Urban Release Area by providing a range of convenience based retail facilities and other complementary land uses.
2. The development staging is to be responsive to market demands and reflective of the growing population and needs of the Chisholm Release Area.

### Development controls

1. The precinct should be staged generally in accordance with Figure 48: Chisholm Neighbourhood Centre Stage 1 Plan.
2. A full line supermarket and other core retail uses are to be provided in Stage 1 of the neighbourhood centre.
3. The proposed town square is to be developed within the stage 1 of the neighbourhood centre.
4. The surrounding street network and centre interface is to facilitate bus access with the proposed bus set down area on Tigerhawk Drive to be provided as part of Stage 1.

## **1.2 Economic Impact Assessment**

### Objectives

1. The centre will grow and evolve in a sustainable manner that reflects the needs and demands of the population, whilst respecting the Centre's role in Council's adopted centres hierarchy.
2. Thornton and Chisholm centres remain viable.

### Development Controls

1. An Economic Impact Assessment (EIA) shall be submitted with the development application for each stage of the Chisholm Neighbourhood Centre.
2. The EIA shall consider the potential mix of retail and commercial offerings and the scale of any to ensure the continued viability of both the Thornton and Chisholm centres.

## **1.3 Transport and Movement**

### Objectives

1. A simple and safe movement system for private vehicles, public transport, pedestrians and cyclists is achieved.
2. Centres are conveniently located and easily accessible by private vehicles, public transport, pedestrians and cyclists.
3. The release of urban land and necessary infrastructure is logically sequenced.
4. Excellent connectivity and integration between the neighbourhood centre and the Thornton North Urban Release Area is achieved.
5. Pedestrian and cycle routes connect the neighbourhood centre to the surrounding residential neighbourhood and local features such as the primary school; open spaces and community uses.
6. Good connectivity with public transport is provided.
7. Connections are logical and well defined.



### Development controls

1. The link between the Investa and Waterford estates via Harvest Boulevard and Dragonfly Drive shall be completed prior to the issue of an occupation certificate for development in the neighbourhood centre.
2. The development application for stage 1 shall include a Traffic Impact Assessment and Access Strategy prepared by a suitably qualified consultant.
3. The Traffic Impact Assessment and Access Strategy shall consider the full development scenario of the centre.
4. This assessment is to include details relating to the overall traffic and pedestrian management, access to parking areas, pedestrian access provisions, assessment of the proposed car parking designs and traffic generation including an assessment on the surrounding road network and key intersections.
5. The intersection of Tigerhawk and Heritage Drives shall be upgraded to cater for pedestrian safety, bus and heavy vehicles and traffic movements. Traffic lights are envisaged for this intersection.
6. Pedestrian linkages shall be provided in every direction.
7. The assessment shall consider the safety and functionality of the pedestrian focal point and the public and school bus services that will congregate on Tigerhawk Drive.
8. Development applications are to include a shared path connectivity plan linking all external paths to the entry point of the development.
9. Regrade of the kerb return and verge on the Heritage Tigerhawk Drives intersection to provide adequate longitudinal and transverse cross falls.
10. Development applications are to include details of recommended regulatory signage for existing and proposed roads. i.e. parking controls, loading zones, bus and taxi zones, etc
11. Street lighting shall be planned (lighting categories), designed and implemented to relevant Australian standards for vehicle and pedestrian networks (including pedestrian crossings).
12. Driveway entry points on Settlers Boulevard and Tigerhawk Drive shall be left-in/left-out with concrete median separation on the centreline.
13. A pedestrian/Access assessment shall be submitted with development applications for connectivity into the site.
14. Pedestrian/cycle refuges, or greater, shall be provided on public roads including a central connection across Heritage Drive to the Riparian Corridor.
15. Internal taxi and mini bus pickup at front of shop entry.
16. Internal pedestrian network and bicycle racks /facilities shall be provided.

#### **1.4 Overall Landscaping Strategy**

There are no specific requirements as landscaping is already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.5 Passive and Active Recreation Areas**

##### Objectives

1. The neighbourhood centre is the focal point for community.

### Development Controls

1. An urban design masterplan shall be submitted with the development at Stage 1 of centre.
2. The masterplan shall provide opportunities for;
  - An informal meeting place that can be used by local residents and parents of children attending nearby local schools and child care centres.
  - Formal and informal outdoor seating areas.
  - Outdoor dining.
  - A space for activities which support the local community such as charity fundraising stalls, donation tables etc.
  - Landscaping and design features which encourages use and activity throughout the day and in to the evening, including safe areas for children to play whilst being supervised from adjacent outdoor seating areas.

## **1.6 Stormwater and Water Quality Management**

There are no specific requirements as provision of stormwater and water quality is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## **1.7 Amelioration of Natural and Environmental Hazards**

There are no specific requirements as amelioration of natural and environmental hazards is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## **1.8 Key Development Sites**

There are no specific requirements as key development sites is already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.9 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.10 Neighbourhood Commercial and Retail Uses**

### *Building design*

### Objectives

1. The design of the centre (including the height of buildings) should respond to the existing topography and capture important local views including views to adjacent open space.

2. The centre should be scaled to positively contribute to the surrounding neighbourhood and open space areas.
3. Buildings are sited and designed in a manner that present a unified, coherent appearance that integrates with its context and takes advantage of its physical attributes.
4. Visually interesting, harmonious roof scapes and skylines are provided.
5. Roofs are used for recreation where practical and desirable.
6. A positive sense of space, safety and openness is created in the public domain.
7. Building security is achieved without compromising the streetscape.

#### Development controls

1. Where more than 2-storeys are proposed, the third and higher storeys are setback further by a minimum of 3.0m.
2. Variations in roof form including the use of skillions, gables and hips are to be provided in the development or between developments.
3. Flat roofs shall be avoided unless they are behind a parapet.
4. Lift over-runs and service plant shall be concealed within roof structures.
5. All roof plant is to be represented on plans and elevations.
6. Outdoor recreation areas on flat roofs shall be landscaped and incorporate shade structures and wind screens to encourage use.
7. Security grilles (for e.g. roll-up doors) shall be avoided.
8. If installed, security grilles shall be provided within the building, behind the glazing and be constructed of material that allows the interior to be visible.

#### *Setbacks*

#### Objectives

1. The established character of the street is reinforced.
2. The existing rhythm of the street and its built form is maintained.
3. The development provides adequate pedestrian areas and integrates into the adjoining sites.
4. A consistent streetscape is achieved.
5. Structures and queues do not impede pedestrian movement.
6. Any ramps are to be integrated into the overall building and landscape design.

#### Development controls

1. Development along identified active streets must be built-to-boundary.
2. In all other cases, building shall be setback within 20% of the average of the adjoining buildings.
3. All pedestrian paved areas along an active street are to have a minimum paved width of 3.5m.
4. The 3.5m paved setback:
  - is clear and accessible for pedestrians for its entire length and width;
  - is clear of columns (other than awning posts where provided) and other obstructions;

- may include outdoor dining where a minimum footway clearance width of:
  - 1.8m for high volume pedestrian areas; or
  - 1.5m in all other circumstances; is maintained.
  - has a pavement matching the gradient of the adjoining footpath and connects to pedestrian areas on neighbouring sites; and
  - connects without any lip or step to adjoining footpaths or abutting pedestrian areas on neighbouring sites.
5. Pavements, furniture and landscaping are to be designed in accordance the Council's requirements or in consultation with Council's Executive Manager Appearance and Infrastructure.
  6. Steps, escalators, ramps or lifts are not located within the 3.5m paved, pedestrian area.
  7. Any automatic teller machine:
    - is inset 1.5m into the building line;
    - is well illuminated at all times.
  8. Ramps are constructed and finished with materials that are similar or complementary to those used on the building or in the street.

### *Active Frontages*

#### Objectives

1. Active uses are provided along identified frontages.
2. Uses that attract pedestrian traffic along certain ground floor street frontages are promoted.
3. A vibrant and safe public domain is provided.
4. Direct contact (visual and physical) between the street and the interior of a building is achieved.

#### Development controls

1. Active frontages shall consist of one or more of the following:
  - A shop front.
  - Commercial and residential lobbies.
  - Café or restaurant.
  - Public building if accompanied by an entry from the street.
2. A minimum of 80% of the ground floor level front facade shall be clear glazed.
3. The reflexivity index for glass shall not exceed 20%.
4. Restaurants and cafés shall provide openable shop fronts (for e.g. bi-fold doors) where practical to the public domain.
5. Colonnade structures (refer Figure 3) shall not be used unless it is demonstrated that the design:
  - would not restrict visibility into the shop or commercial premises; and
  - not limit natural daylight along footpaths; and
  - does not create opportunities for concealment.



## *Arcades*

### Objectives

1. Connections to enhance the pedestrian network and to link between shopping areas, public spaces and car parking are provided.
2. Parking at the rear of the development is encouraged by providing good permeability to the front of the site.
3. Activity within arcades is encouraged.

### Development controls

1. Arcades are to:
  - Be obvious and direct through-ways for pedestrians.
  - Have a minimum width of 3m clear of all obstructions unless it includes arcade dining where a minimum footway clearance width of 1.8m for high volume pedestrian areas or 1.5m in all other circumstances; is maintained.
  - Be accessible to the public for the duration of activity in the centre.
  - Where practical, have access to natural light for part of their length and at openings at each end.
  - Have clear glazed entry doors at least 50% of the entrance, where the arcade is air- conditioned.
  - Have signage at the entry indicating public accessibility and to where the arcade leads.
  - Have clear sight lines and no opportunities for concealment.
  - Where arcades or internalised shopping malls are proposed, those shops at the entrance shall have direct pedestrian access to the street.

## *Awnings*

### Objectives

1. Weather protection is provided along key streets.
2. A consistent and complementary streetscape is maintained.
3. Active streets are well lit at all times.
4. Awnings are structurally sound.

### Development controls

1. Continuous shelter from the weather is to be provided for the full extent of the active street frontage.
2. Awnings shall be horizontal or near horizontal (maximum pitch of 10%).
3. Awnings heights shall be no less than 2.7m high at any point measured above the existing ground level.
4. A minimum awning width of 2.5m-3.0m is required unless this cannot be achieved because of narrow pavements and street tree planting, traffic signals, traffic signage or utility poles.
5. New awnings shall be set back a minimum of 450mm from the kerb line.

6. Awnings along sloping streets shall step down in horizontal steps (a maximum of 700mm per step) to follow the slope of the street.
7. All contiguous awnings shall be of consistent height and depth and of complementary design and materials.
8. Awnings and/or canopies shall be provided elsewhere to define public entrances to buildings, including residential flat buildings.
9. Awnings shall wrap around street corners and contribute to the articulation and focal design of corner buildings.
10. New awning fascias have a vertical depth not greater than the average of the vertical depths of the immediately adjoining awning fascias or, if there are no adjoining awning fascias, 350mm.
11. Under awning lighting shall comply with AS/NZS1158 - Lighting for roads and public spaces.
12. Awnings are to be designed and certified by a professional engineer.

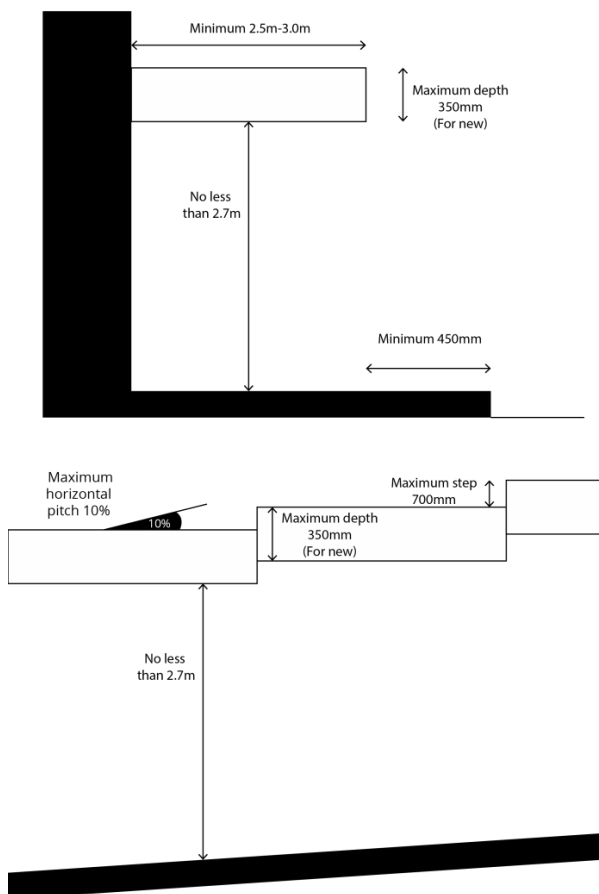


Figure 47: Awning details.

*Gateway, corner and landmark sites*

Objectives

1. An innovative architectural style is achieved with building heights that emphasise prominent corners of the development to promote a unique sense of identity for the centre.

### Development controls

1. The design of buildings on corner sites or at the ends of business or commercial zones shall emphasise the importance of the corner as a focal point.
2. Corner sites or at the ends of business or commercial zones shall be constructed to boundary with no car parking or servicing between the street boundary and the building.
3. Corner buildings shall include design devices such as:
  - Increased wall heights;
  - Splayed corner details;
  - Expression of junction of building planes;
  - contrasting building materials; and
  - other architectural features;
  - to reinforce the prominence and distinctiveness of the building.
4. Shopfronts shall wrap around corners and entrances located centrally to the corner.
5. The tallest portion of the building shall be on the corner.

### *Pedestrian Entries and Access*

#### Objectives

1. Equity for all street users is provided.
2. Pedestrian and vehicle access ways are separated where possible and visually distinguishable.
3. Conflict between pedestrians and vehicles is minimised during the day and at night.
4. The design of buildings and spaces shall promote legibility to help users find their way.
5. Walking and cycling is encouraged.
6. Secure and convenient parking is provided for bicycles.

#### Development controls

1. The development complies with AS1428 - Design for Access and Mobility.
2. Pedestrian and vehicle movement areas are separated and defined by changes in pavement material, levels, lining or tactile treatments.
3. Parking areas are illuminated (naturally and/or artificially) during the time period the centre is open.
4. Signage is provided at the entries to the development detailing the services available within the centre and where they are located.
5. Signage to key public spaces accessible from the centre such as car parks, food courts shall be provided within the centre.
6. Signage to key facilities such as rest rooms, centre management, baby change rooms shall be provided within the centre.
7. Secure and convenient parking/storing for bicycles is provided close to the entrance of the development and with good surveillance.

### *Parking, loading and servicing*

#### Objectives

1. Parking, loading and servicing areas are provided that are functional, safe and do not dominate the site or streetscape.
2. Vehicular conflicts are minimised through the separation of delivery vehicle access from the main public spaces and car park areas.
3. Servicing areas are appropriately screened to minimise amenity impacts on nearby sensitive land uses.
4. The established structure of town centre streetscapes is maintained.
5. Car parking provision does not undermine an existing streetscape.

#### Development controls

1. Car parking provision shall be in accordance with the provisions of C.11 of this development control plan.
2. Garage doors and loading docks shall be located at the rear of development, so that they are not a dominant element in the overall presentation of the development to keystreets.
3. Signage shall be provided to direct visitors to the centre and to car parking areas.
4. Rear or internalised car parks shall be designed and constructed in a manner which enables future expansion and connection with potential future car parks in neighbouring sites. This includes consideration of levels, drainage and location of existing and future driveways and crossovers.
5. All vehicles must be able to enter and leave any development in a forward direction.
6. Loading and manoeuvring areas for service vehicles shall be separated from car parks and pedestrian paths. Where shared access is provided, no loading or unloading shall be carried out over car parking spaces and access aisles.
7. Where natural or mechanical ventilation of a car park is achieved through the use of metal grills or large openings they shall contribute to the overall design or be screened by landscaping or other design elements.
8. External service areas (for e.g. areas for rubbish storage, cardboard compacting etc) shall not be visible from roadways or public open space areas.
9. External storage and service areas shall be suitably screened from view from both roads and parking areas and pedestrian areas.
10. Deep soil planted landscaped setback areas are provided.
11. Basement car parks shall be setback a minimum of 3.0 metres from the street boundary.

### *Vehicular access*

#### Objectives

1. In centres, pedestrians are prioritised over vehicles.
2. Conflict points between pedestrians and vehicles are minimised.



3. Car parking does not deactivate public space, including streets, laneways and share ways.
4. Underground car parking is integrated into the building design and streetscape.

### Development controls

1. The number of vehicular crossovers shall be kept to a minimum.
2. Access and egress points are designed so that exiting vehicles have clear sight of pedestrians and cyclists.
3. Any car park ramps are located within the building footprint.
4. Access and egress to car parks is achieved in a forward direction.
5. Vehicular entrances to underground car parks are:
  - located on minor streets;
  - have a maximum crossover width of 6.0m;
  - signed and lit appropriately;
  - designed so that exiting vehicles have clear sight of pedestrians and cyclists.
6. All stairs and elevators in the parking structure are clearly visible.
7. The street level frontage of car parking structures (including multi-level car parks) where adjoining public places, including active streets, share ways and laneways, shall present an active frontage along the entire frontage less any car park entry.
8. Internal finishes of underground car parks shall be consistent with the external materials where they are visible from the public realm.
9. Underground car parks shall be designed for natural ventilation.
10. Ventilation ducts/grilles shall integrate with the streetscape and be unobtrusive and/or appropriately screened.
11. Garage doors to underground parking shall be designed to complement the materials used elsewhere on the development.

### *Public art, landscaping and public domain works*

### Objectives

1. Planting shall be provided to shade, soften the built form and enhance its appearance from public viewpoints.
2. Planting is used to soften hardstand and reduce heat retention and reflection.
3. Medium and large trees are retained or planted to improve the amenity of the site.
4. Undeveloped areas of the site do not cause nuisance in terms of dust or erosion.
5. Undeveloped areas of the site positively contribute to the quality of the development.
6. Plant species that minimises Council's maintenance and liability responsibility are used in landscaping.
7. Water sensitive urban design is used where appropriate to assist with stormwater management and water quality.
8. Fencing does not detract from the streetscape.
9. The privatisation of public places is avoided.
10. Rear and side fencing does not detract from the streetscape or from internal areas.
11. Street furniture is coordinated with existing street furniture.

12. Street furniture does not create clutter and obstacles in the public realm.
13. Public art is consistent with Council's Public Art Strategy.

### Development controls

1. A landscape plan shall be submitted with the development application that shows:
  - Existing vegetation;
  - Vegetation proposed to be removed;
  - Proposed general planting landscape treatment;
  - Design details of hard landscaping elements;
  - Major earth cuts, fills and any mounding;
  - Street trees; and
  - Existing and proposed street furniture including proposed signage.
2. The landscape plan for the site achieves the following minimum standards:
  - Large trees and spreading ground covers are provided in all landscape areas within the site.
  - Where screening is required, large screening shrubs of an appropriate density and size to complement the scale and bulk of the subject building are provided.
  - At grade car parking areas shall be provided with one tall, branching, mature shade tree for every 4 linear car spaces.
  - All areas less than 1.0 metre in width shall be paved.
  - Where car parking cannot be provided under or behind the building and Council has agreed to permit some or all of the parking in the front setback, a landscaped strip with a minimum width of 3.0m is provided along the entire frontage/s of the site.
  - Any area of the site that remains undeveloped shall be landscaped with turf and scattered planting at a minimum.
  - All street plantings are to be selected from Council's landscaping policy or with the agreement of Council's Coordinator Recreation and Tree Services.
  - Water sensitive urban design facilities (such as swales, bio-detention ponds and rain gardens) are used to treat stormwater for at-grade car parking areas.
  - Water sensitive urban design facilities are designed in accordance with Council's Manual of Engineering Standards.
  - Fencing for security or privacy shall not be erected between the building line and the front boundary of a site.
  - Where fences are erected, landscaping of an appropriate height and scale shall be provided to screen the fence and achieve an attractive appearance to the development when viewed from the street or other public place.
  - Street furniture (including seats, bollards, signage, grates, grills, screens and fences, bicycle racks, flag poles, banners, litter bins, telephone booths and drinking fountains) and streetscape treatments are provided in accordance with Council's Public Domain Design Manual or with agreement of the Executive Manager Appearance and Infrastructure.
  - Any public art is provided in accordance with Council's Public Art Strategy.

## *Waste Management*

### Objectives

1. Waste generation is minimised through design, material selection and building practices.
2. Waste management minimisation is encouraged by including source separation, reuse and recycling facilities.
3. Efficient storage and collection of waste and quality design of facilities.

### Development controls

1. A waste management plan for the construction and/or occupation of the development is provided that:
  - Recycles and reuses demolished materials where possible;
  - Integrates waste management processes into all stages of the project;
  - Specifies building materials that can be reused and recycled at the end of their life; and
  - Uses standard components and sizes to reduce waste and facilitate update in the future.
2. Separate storage bins for collection of organic waste and recyclable waste are provided within the development.
3. Bulk waste facilities shall be stored in a designated area that is physically and visually integrated into the development at ground or sub-basement level that:
  - is not visible from the street or public domain;
  - is easily accessible to businesses;
  - may be serviced by collection vehicles;
  - has water and drainage facilities for cleaning and maintenance;
  - does not immediately adjoin onsite employee recreation area; and
  - be maintained to be free of pests.
4. Cardboard compactors shall be provided for large retail and commercial developments.
5. Where waste facilities cannot be collected at the street, evidence that the site can be serviced by a waste collection service shall be provided.

## *Development adjoining sensitive<sup>1</sup> land uses*

### Objectives

1. Commercial and retail development does not unreasonably affect the amenity of adjoining sensitive uses.
2. The interface between business and commercial development and adjoining residential areas is of a high quality and achieves adequate visual and acoustic privacy.

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<sup>1</sup> Sensitive land uses include residential areas, schools, childcare facilities, hospitals etc.

### Development controls

1. The development is designed so that all vehicle movement areas and servicing areas are located away from adjoining residential areas.
2. Where this cannot be achieved, visual and acoustic treatment of the interface is required.
3. The building elevation adjoining the residential area shall be:
  - Articulated, with changes in setback at intervals no greater than 10m;
  - Use a variety of materials and treatments;
  - Be setback a minimum of half the height of the wall or a minimum of 3.0 metres whichever is greater.

### *Mixed use development*

### Objectives

1. Residential development is integrated with compatible retail and commercial uses.
2. To ensure that the design of mixed use developments maintains a reasonable level of residential amenity and preserves compatibility between uses.
3. Flexible building design to accommodate a range of uses and to allow for changes to uses over time is encouraged.

### Development controls

1. Mixed use developments are located in areas close to key business, commercial and employment centres with good public transport accessibility.
2. The development shall be designed so that loading bays, garbage collection areas and noise and odour generating aspects of buildings are located away from residential areas.
3. Vehicular circulation systems are legible and differentiate between commercial service requirements, such as loading docks, and residential access.
4. All mixed use buildings shall be provided with a separate entry to the residential component of the development. The entry must be directly visible from a trafficable street and clearly demarcated from entries to commercial premises.
5. Security entries are to be provided to all entrances into private areas, including car parks and internal courtyards.
6. Where possible acoustic separation between loud commercial uses (such as cafés and restaurants) and residential uses is achieved by utilising an intermediate quiet-use barrier, such as offices.
7. Plant is located on the roof or visually and acoustically isolated from the residential uses.
8. Buildings are to have a simple and efficient structural grid.
9. The number of internal, apartment structural walls is minimised.
10. Ceiling heights for the ground and first floors shall be 3.3m.



### 1.11 Provision of Public Facilities and Services

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

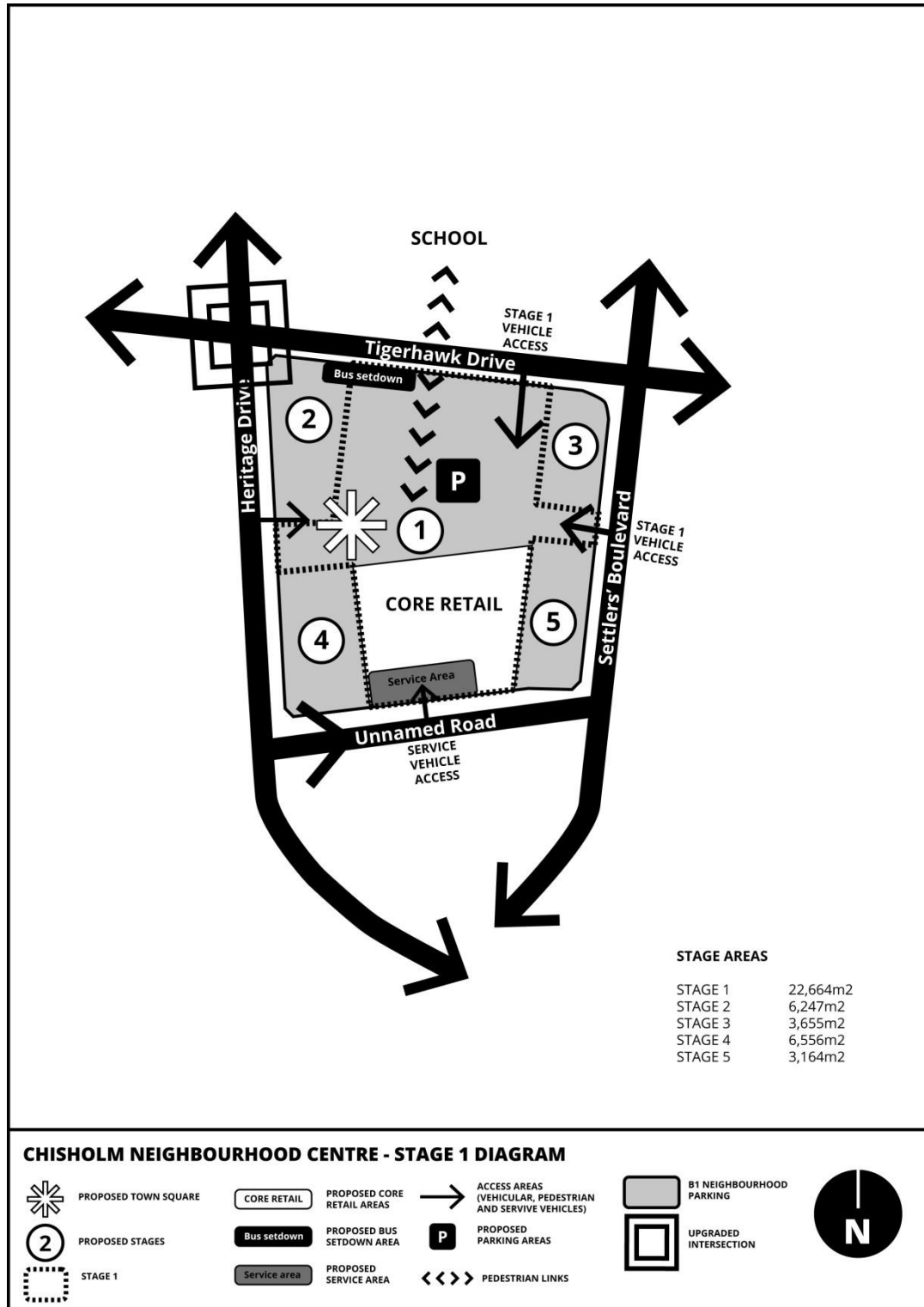


Figure 48: Chisholm Neighbourhood Centre Stage 1 Plan.

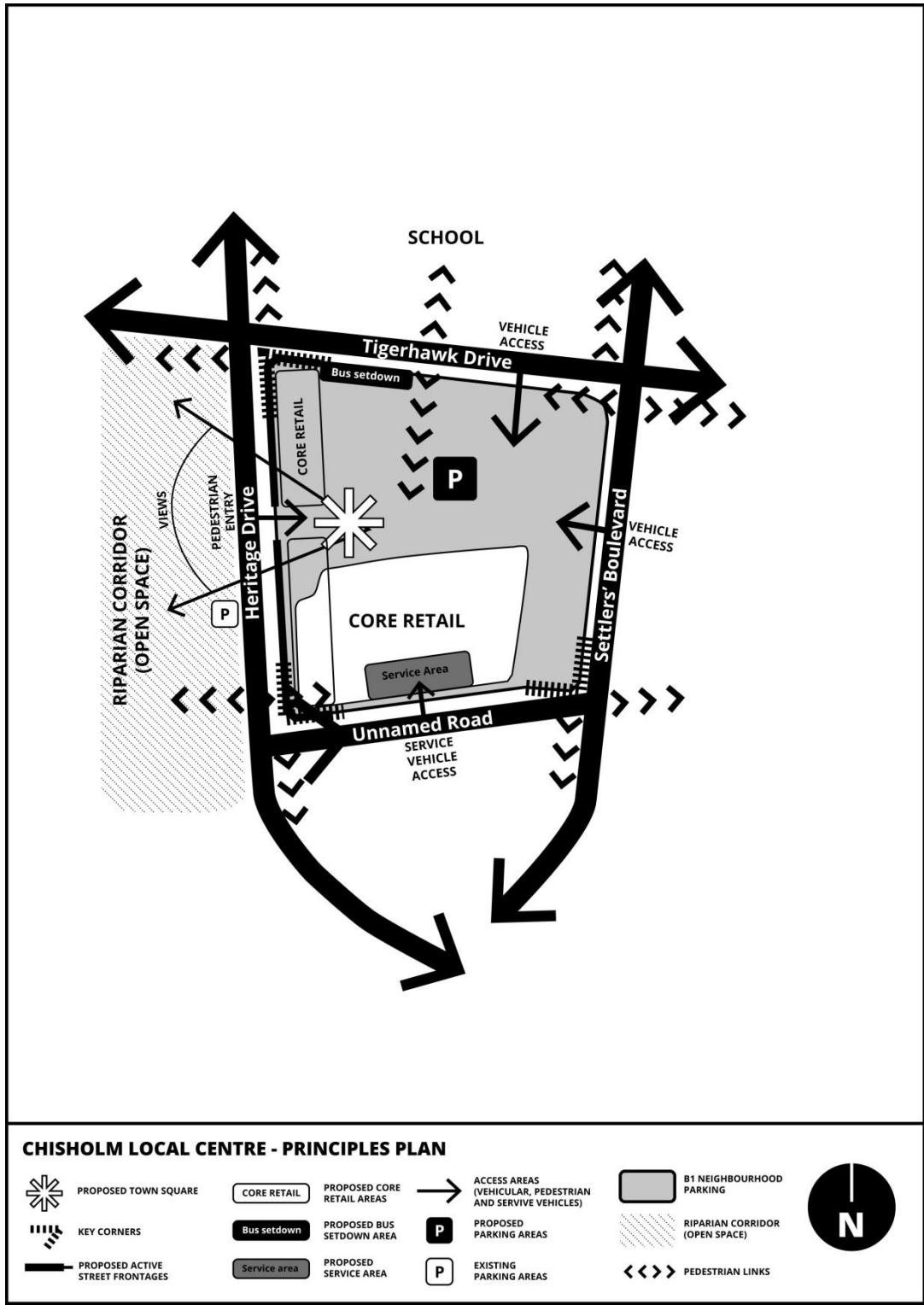
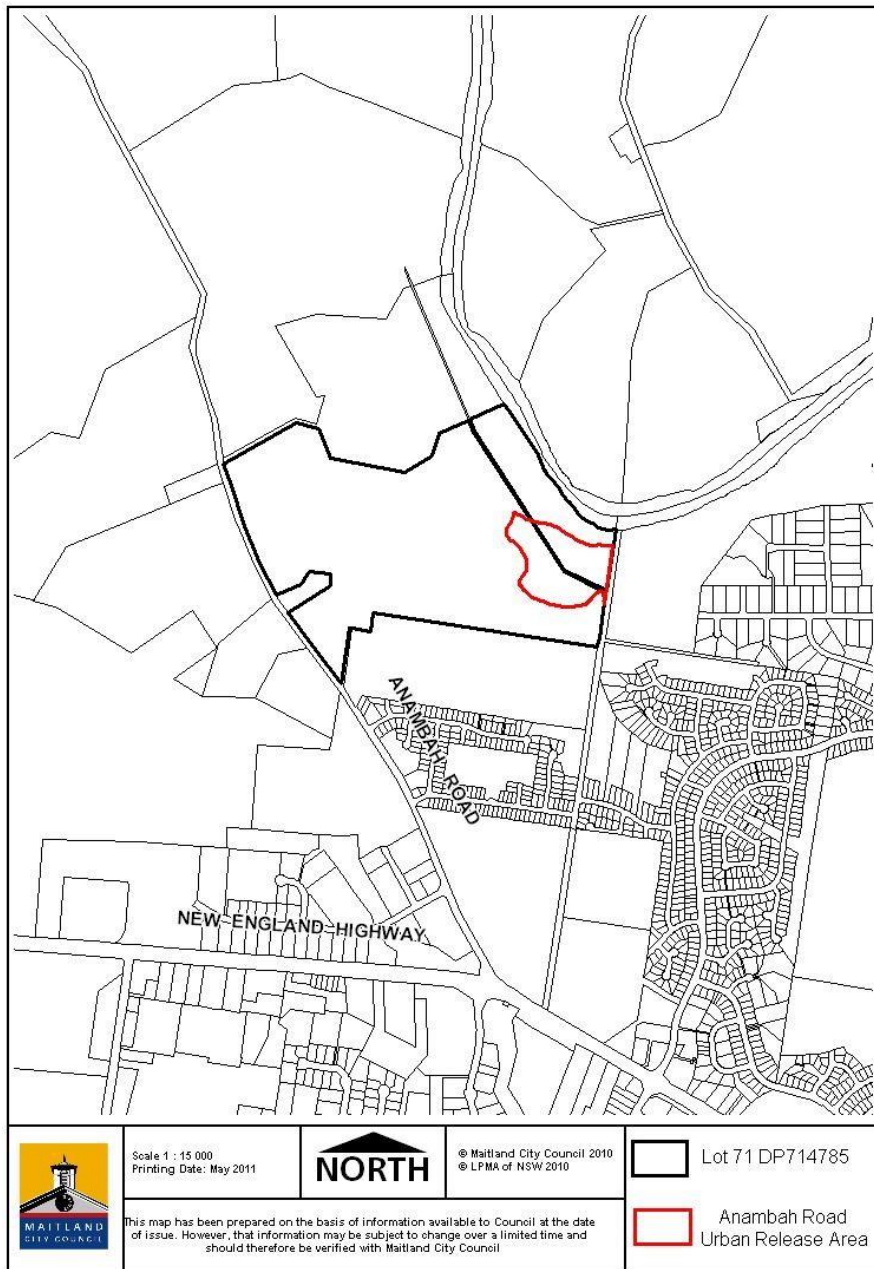


Figure 49: Chisholm Neighbourhood Centre Principles Plan.

# F.8 - Anambah Road Urban Release Area



## DESCRIPTION

The Anambah Road Urban Release Area will be developed as a low density residential area with a range of lot sizes that reflect the constraints and opportunities of the site. Multi-dwelling or dual occupancy housing is to ensure that potential impacts to privacy, solar access, visual amenity, and its relationship to the form and type of adjoining development have been taken into account.

As there is a scarcity of native vegetation on site, the establishment of additional landscaping will enhance the visual appearance of the area from surrounding urban and rural vantage points.

# PRECINCT PLAN

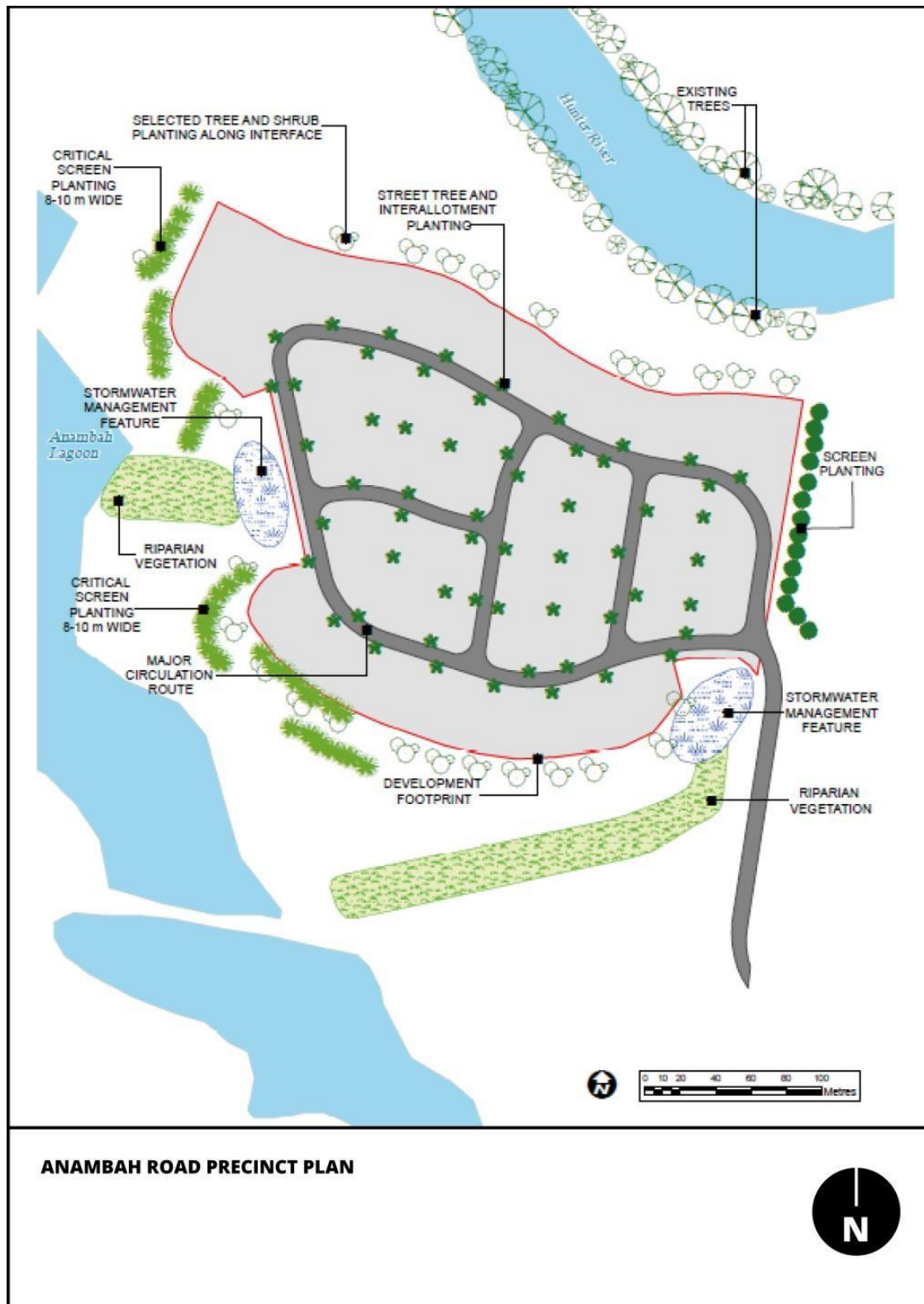


Figure 50: Anambah Road Area Plan



# STAGING PLAN

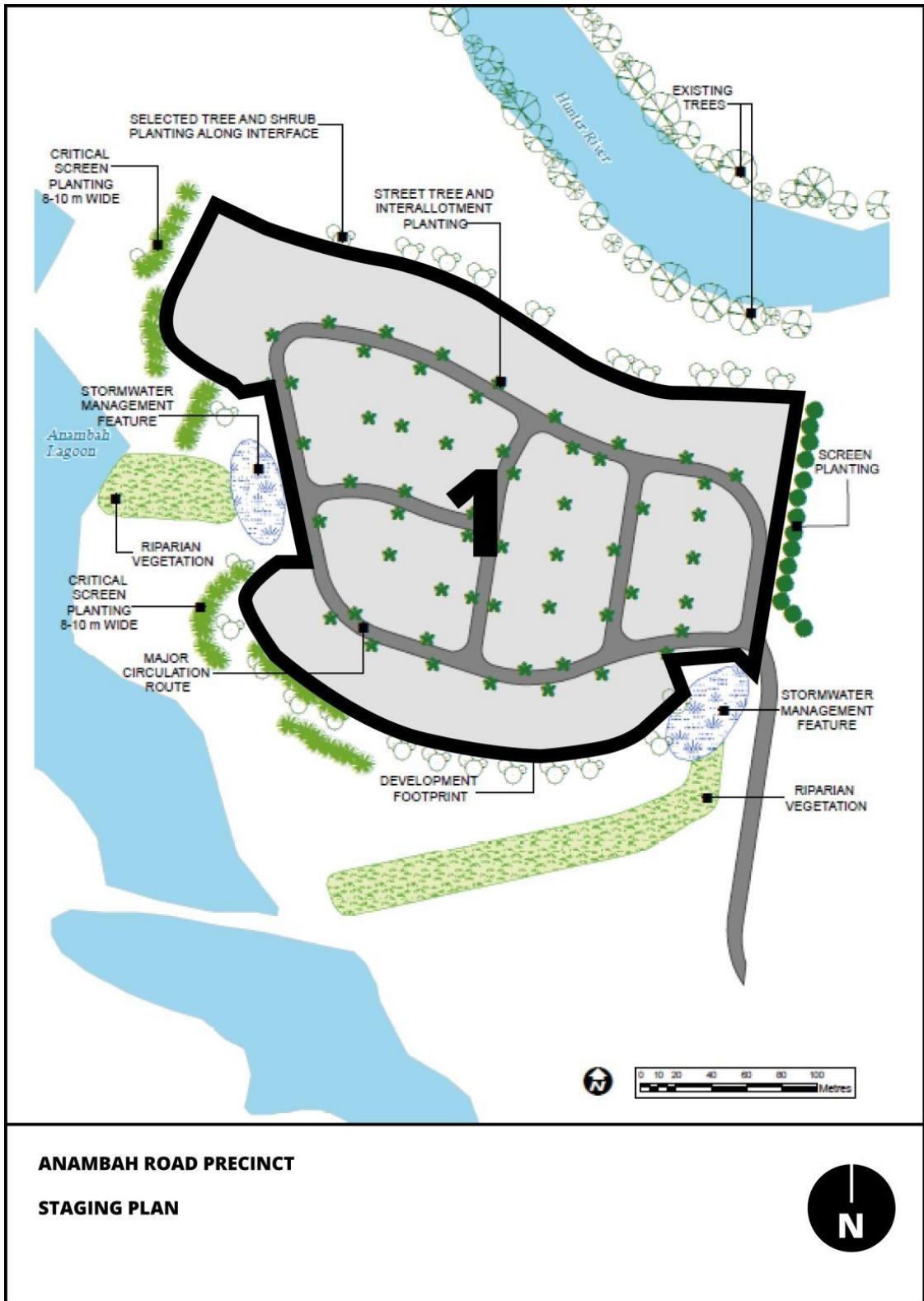


Figure 51: Anambah Road Precinct Staging Plan

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 51.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. Road layout and intersection design will be consistent with Council's adopted standards, as contained in the Manual of Engineering Standards, following detailed survey and subdivision planning.
2. The alignment of the extension to Brittany Avenue through the Urban Release Area is to be in accordance with Council's standards.
3. Road design shall take into account the stormwater management strategy and ensure that there will be satisfactory driveway access to new allotments, at a grade less than the maximum provided for in the Manual of Engineering Standards.
4. The transport movement hierarchy shall generally be in accordance with the circulation route shown in Figure 50.
5. Suitable transport access and connectivity within the site and to adjoining areas shall be maintained at all times for motor vehicles, pedestrians, cyclists and public transport providers.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. A landscape concept plan shall be submitted with all development applications for subdivision.
2. Plantings to achieve visual amenity provisions and objectives are to be protected via mechanisms such as protective covenants, use of road or drainage reserves or other options to the satisfaction of the Council.
3. Landscaping and visual amenity provisions should be consistent with drainage designs and archaeological constraints.
4. Tree and shrub planting, utilising locally occurring native species, shall be in accordance with Figure 50 and the Landscaping Cross Sections in Figure 52 and Figure 53.
5. Avoid the use of lightly coloured and/or highly reflective roofing and fencing materials to assist in minimising the visual impacts of new development. Consideration is to be given to the use of timber fencing or fencing materials with the following colours preferred: browns; greens; muted yellow; reds and terracotta. Whites and creams should be avoided.
6. Boundary planting to be in accordance with the Precinct Plan and the Landscaping Cross Sections in Figures 52 and 53, with particular reference to the provisions of screen planting between new development and the existing urban development to the east and Anambah House to the west of the Urban Release Area.
7. Re-establishment of native vegetation in drainage lines is to be undertaken in accordance with detailed drainage design and in keeping with archaeological finds and requirements.
8. Fencing within the landscaping areas shall make a positive contribution to the visual appearance of development and not detract from the provision of landscaping. Fencing should also be sensitive to the adjoining rural lands.

### 1.4 Passive and Active Recreation Areas

There are no specific requirements as passive and active recreation areas are already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## 1.5 Stormwater and Water Quality Management

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. Stormwater management facilities are to be located in accordance with a stormwater strategy to be submitted with any development application and approved by Council.
2. All development applications are to demonstrate that there will be no detrimental impacts on receiving waters, namely Anambah Lagoon and Hunter River, as a result of new development.

## 1.6 Amelioration of Natural and Environmental Hazards

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

### Development controls

1. Construct subdivision roads to provide suitable flood free access to residential allotments.
2. Each lot is to provide development envelopes that enable all habitable floor levels to be constructed to the minimum flood planning level.
3. There are no requirements for bushfire.
4. A bulk earthworks plan is to be submitted with any development application where bulk earthworks are proposed showing the location, extent and tonnage of proposed fill in accordance with Figure 52 and Figure 53.
5. Only 'virgin excavated natural material' (VENM), 'excavated natural material' (ENM) or waste derived material the subject of a resource recovery exemption (includes ENM) within the meaning of the Protection of the Environment Operations Act or Regulations should be used for the purposes of filling of the land.
6. Adequate provision should be made for implementation of measures during subdivision construction to ensure that the landform is stabilised and erosion controlled to prevent sedimentation runoff and protect the Anambah Lagoon.
7. All development applications shall demonstrate compliance with the requirements of SEPP 55 - Remediation of Land.



## 1.7 Key Development Sites

There are no specific requirements as key development sites are already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## 1.8 Residential Densities

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## 1.9 Neighbourhood Commercial and Retail Uses

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## 1.10 Provision of Public Facilities and Services

### Objectives

1. Suitably located public facilities and services are provided, including provision for appropriate traffic management facilities and parking.

### Development controls

1. Roads are to be dedicated to Council. Stormwater management facilities such as detention basins are to be dedicated to Council as Drainage Reserve.

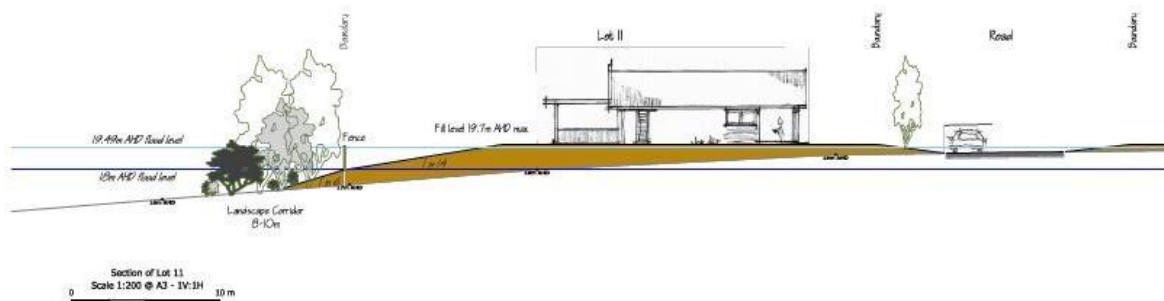


Figure 52: Landscape Cross Section (Section 1).

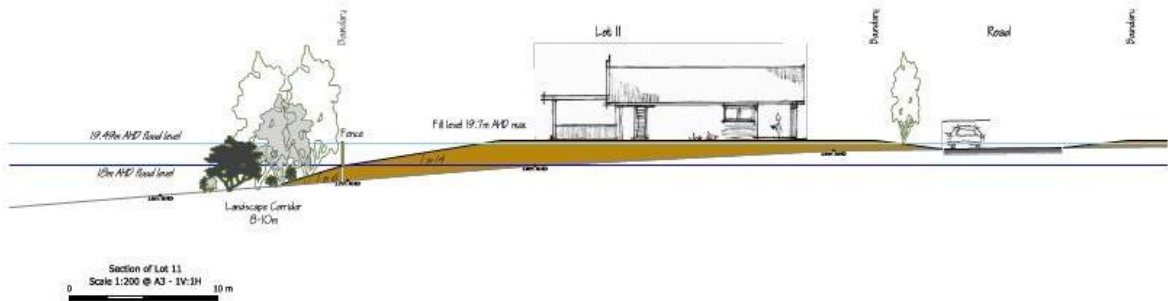


Figure 53: Landscape Cross Section (Section 2).

# F.9 - Lochinvar Urban Release Area

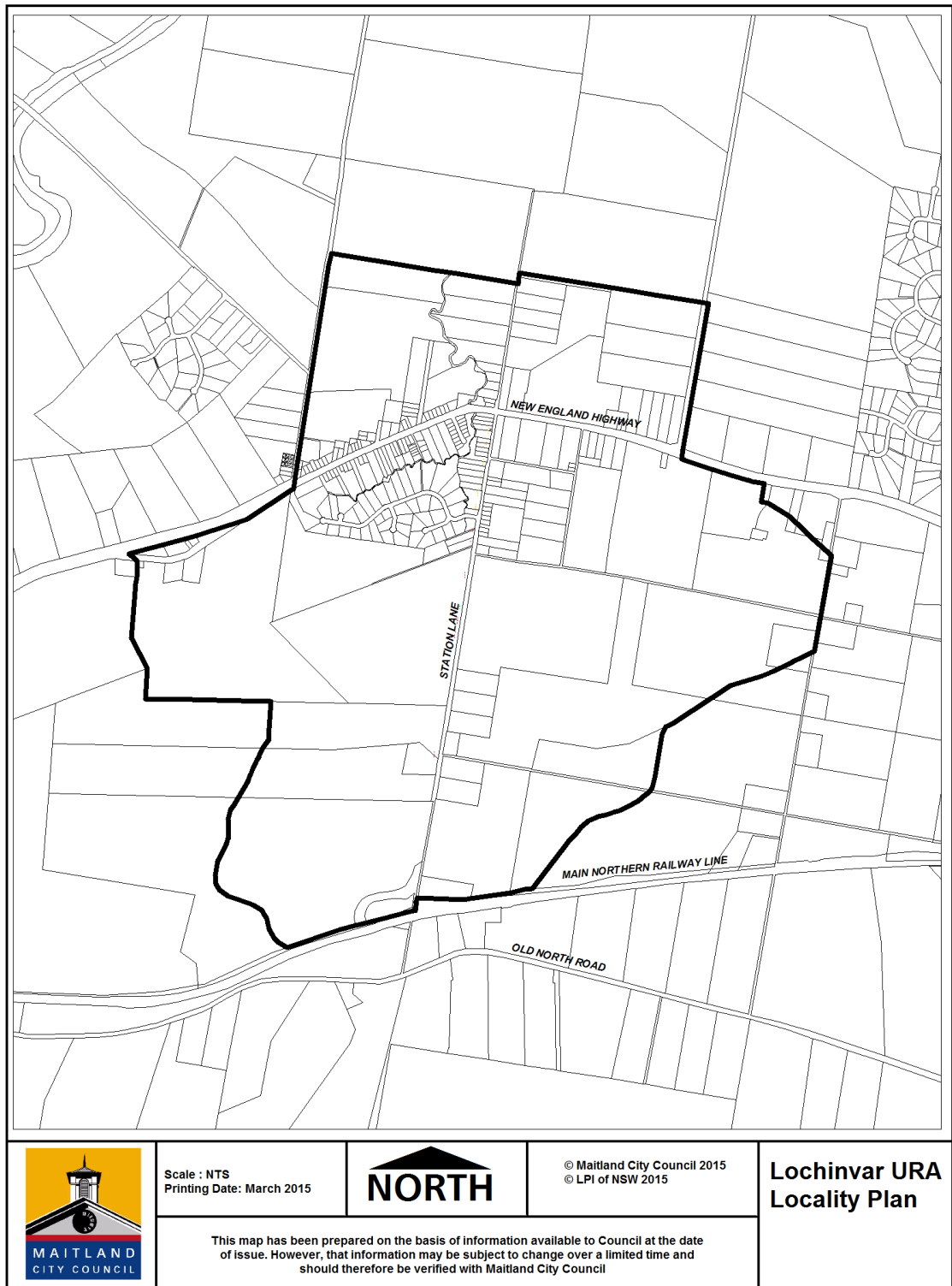


Figure 54: Lochinvar URA Locality Plan.

## DESCRIPTION

The Lochinvar Urban Release Area (URA) comprises a total of 650 hectares of land, with an approximate residential yield of 5,000 lots. The Lower Hunter Regional Strategy (Dept of Planning, 2006) identifies the Lochinvar URA as a regionally significant development area and as a key site to achieve the dwelling targets for population growth in the Lower Hunter.

The proximity of the Lochinvar URA to regional transport systems, including the Main Northern Railway Line, the New England Highway and the Hunter Expressway, are key elements to the identification of this area for urban development.

A Structure Plan was adopted by Council in 2007 for the Lochinvar URA, while a specific Section 94 Contributions Plan has also been prepared for this URA.



# LOCHINVAR AREA PLAN

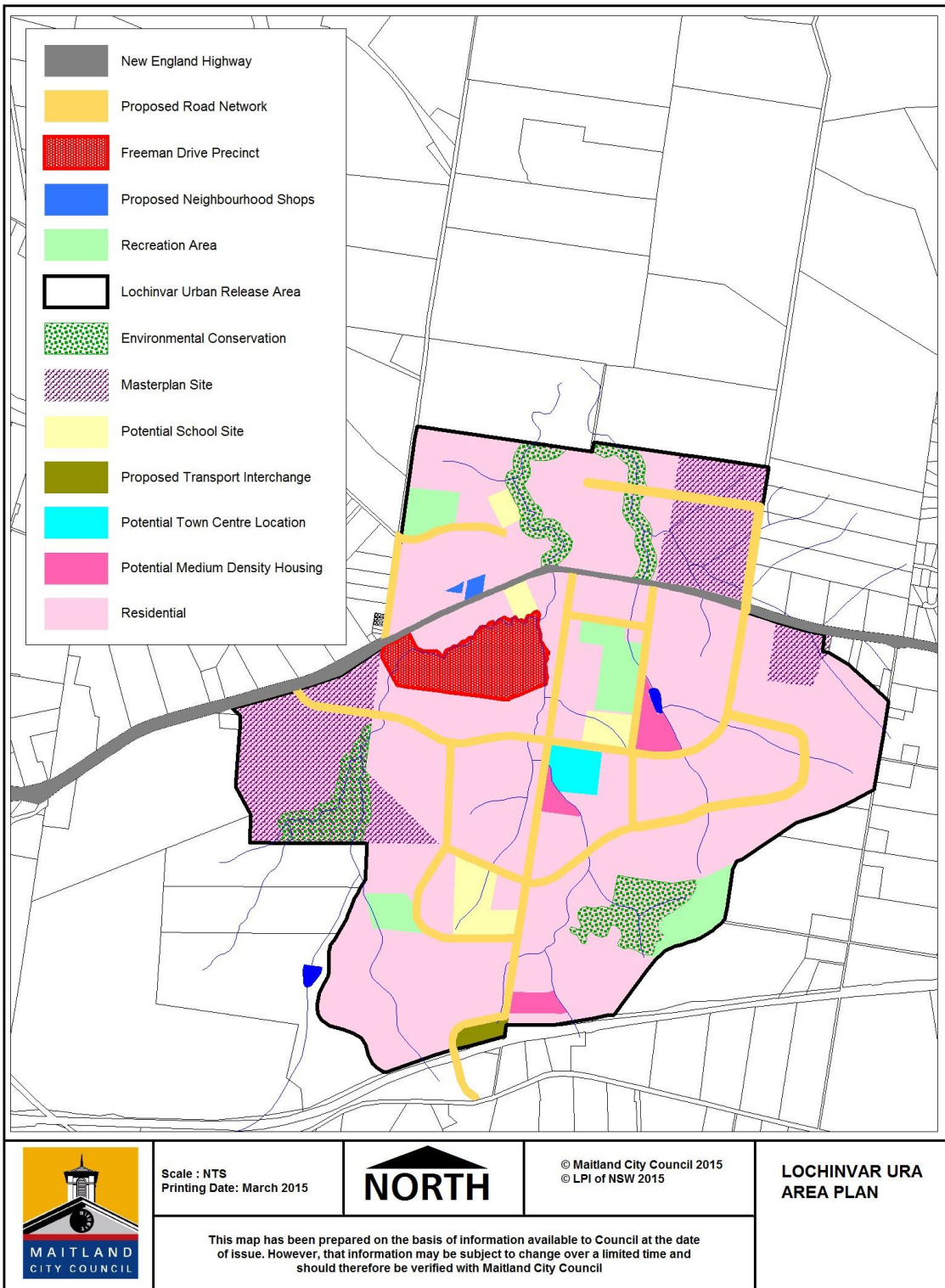


Figure 55: Lochinvar URA Area Plan

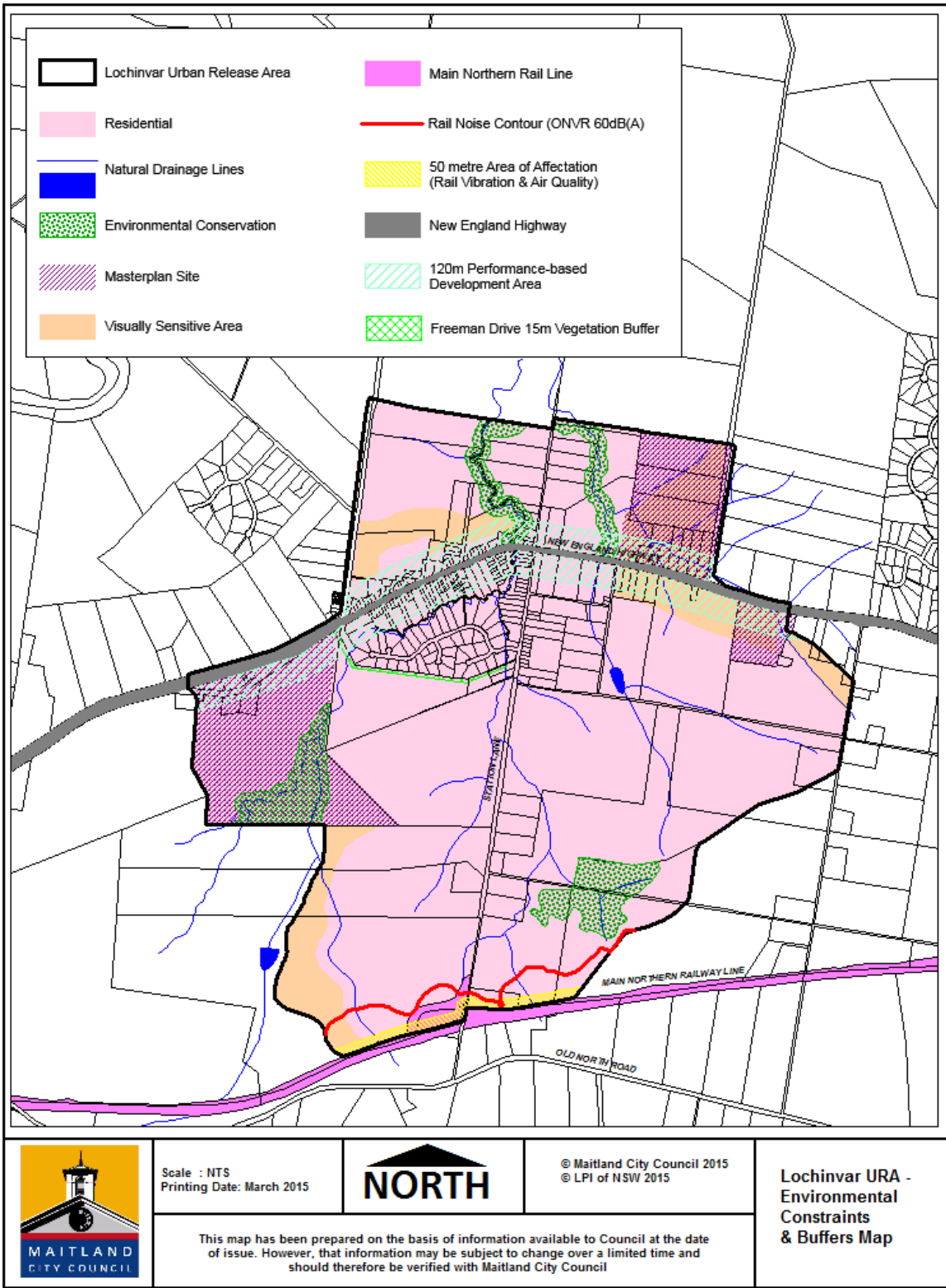


Figure 56: Lochinvar URA Constraints and Buffers

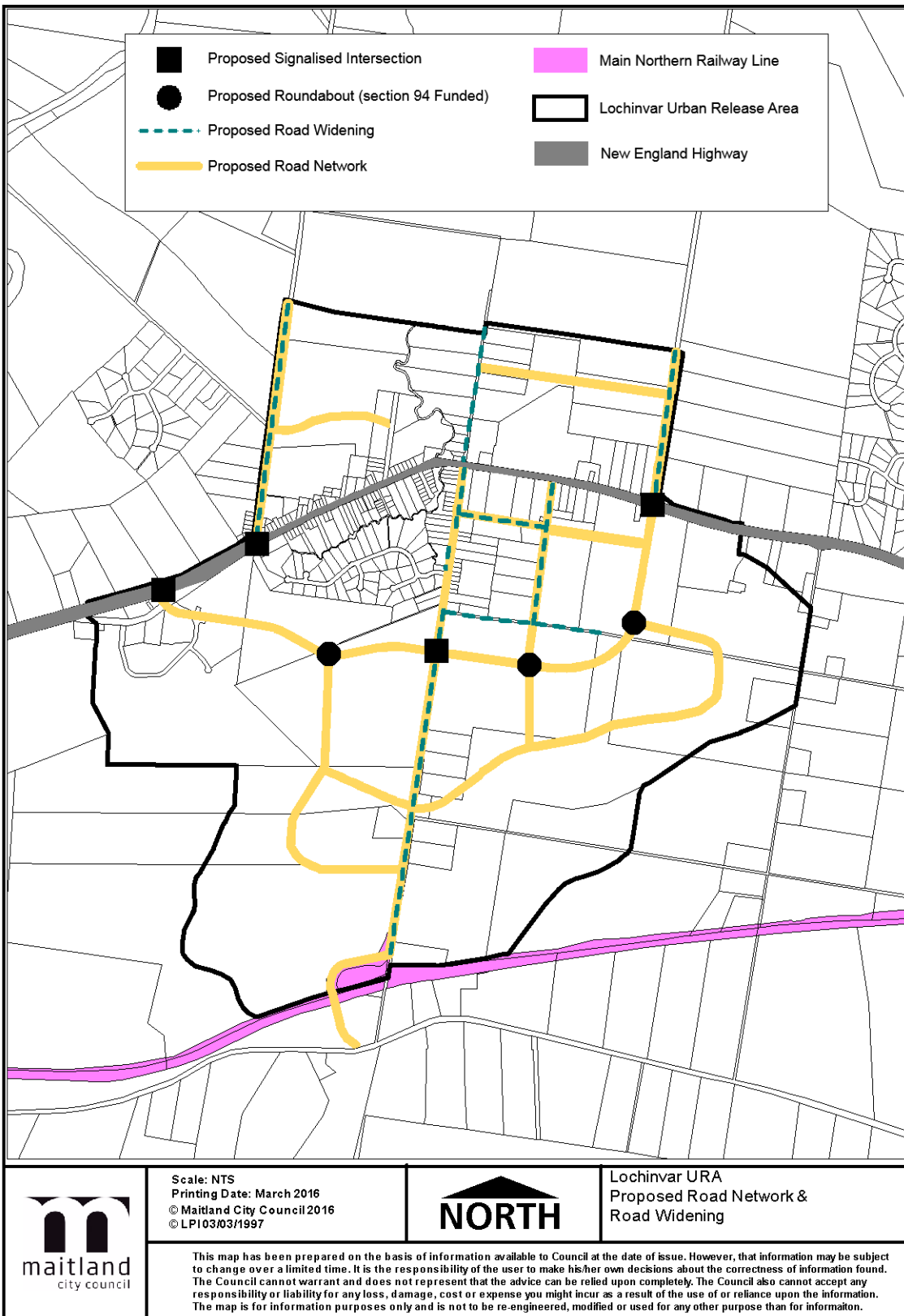


Figure 57: Lochinvar URA Proposed Road Network and Road Widening

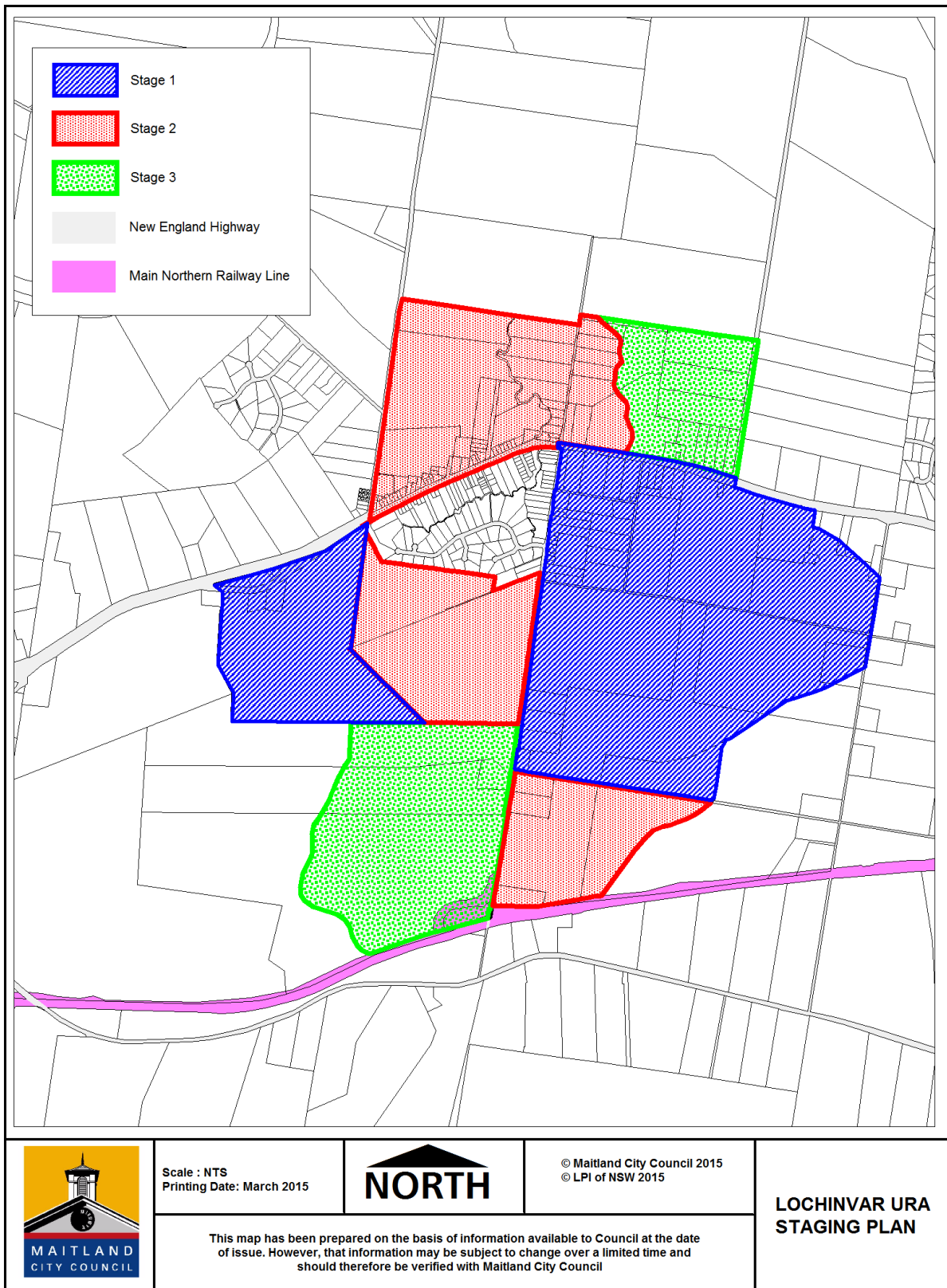


Figure 58: Lochinvar URA Staging Plan



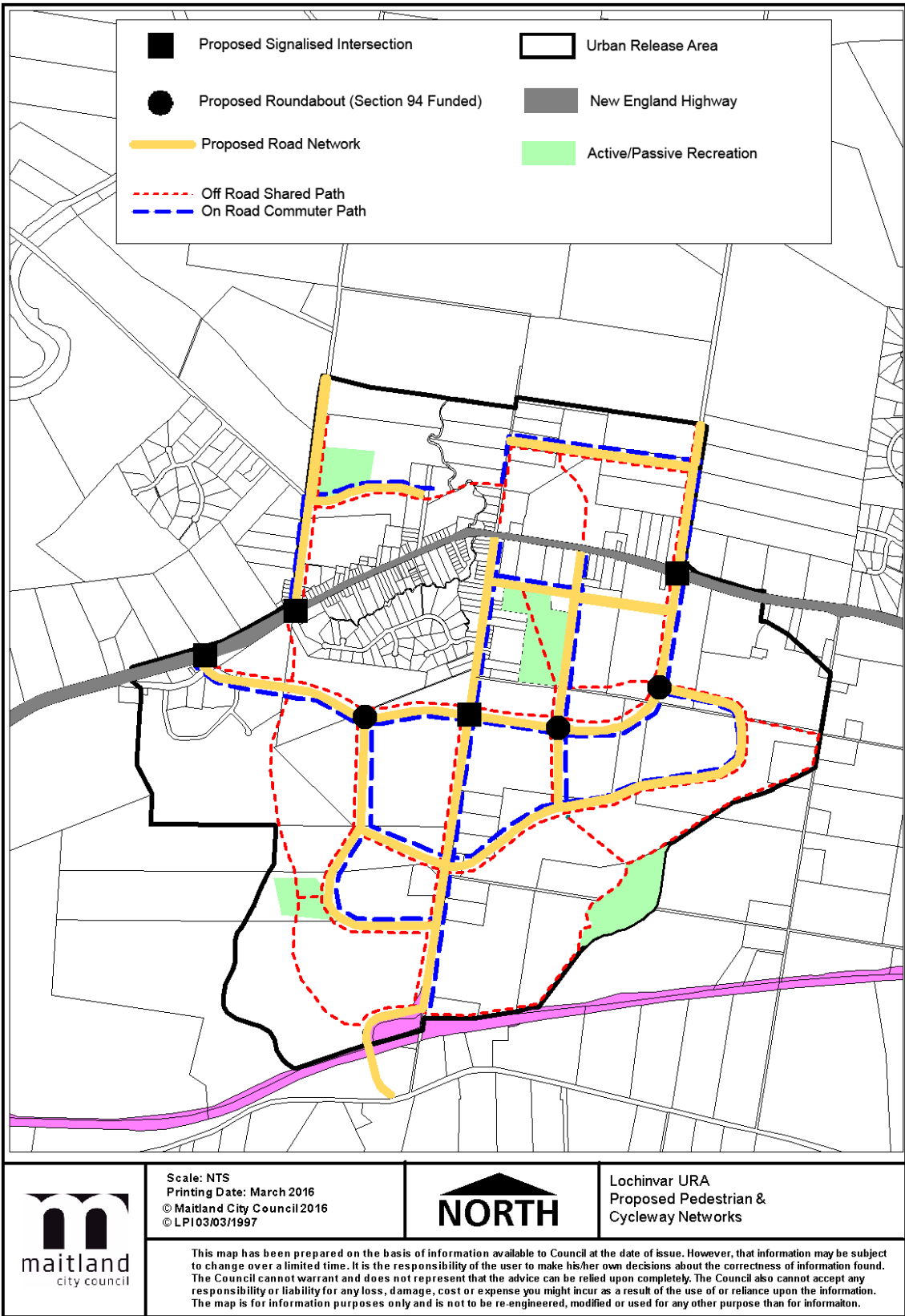


Figure 59: Lochinvar URA Pedestrian and Cycleway Networks

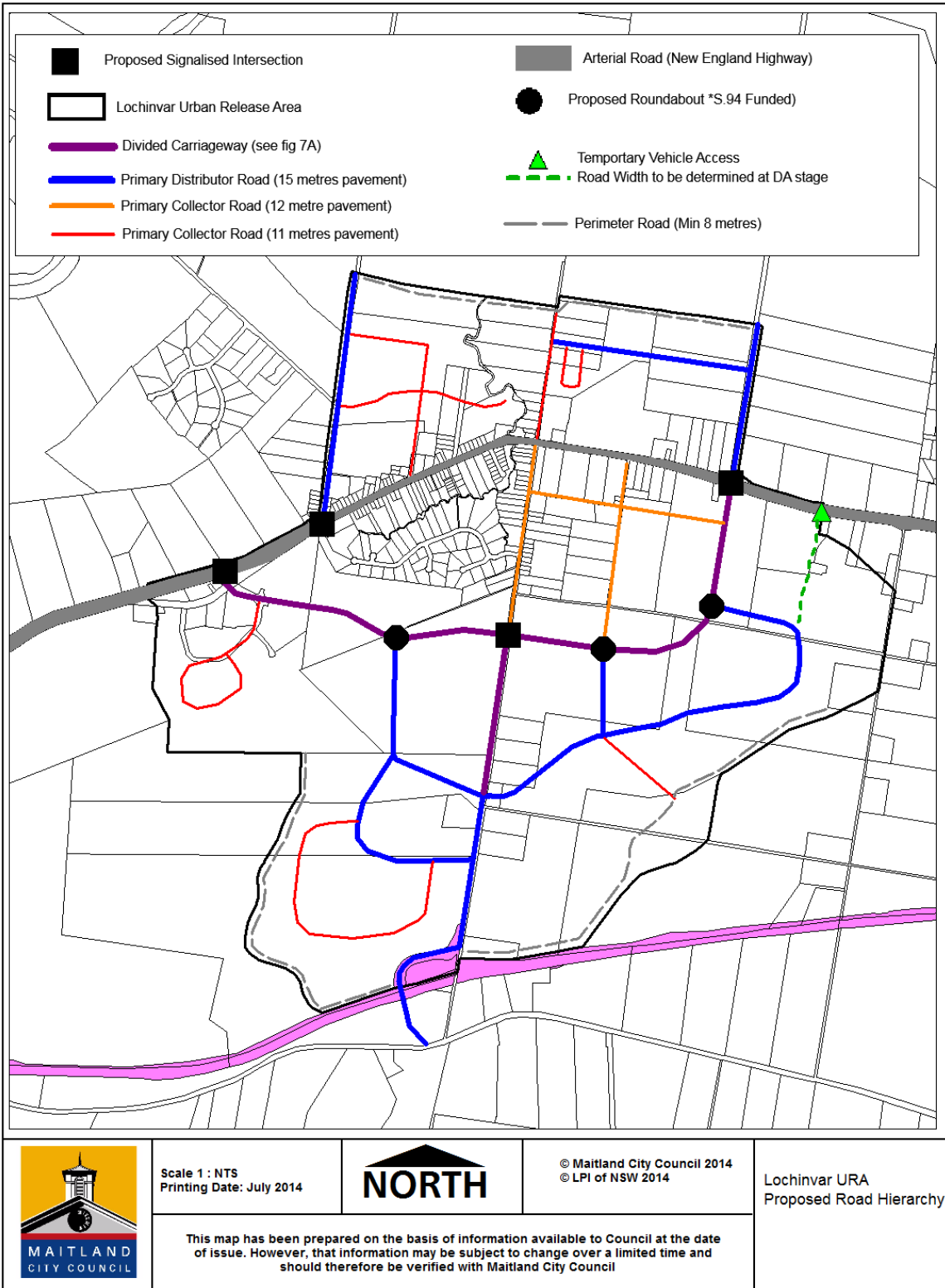


Figure 60: Lochinvar URA Proposed Road Hierarchy and Bus Routes.

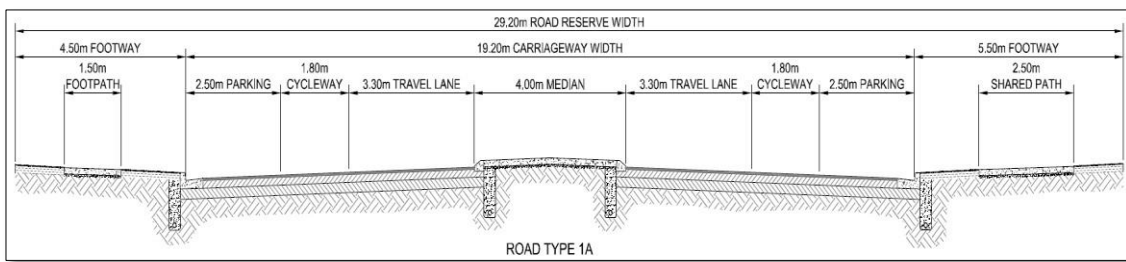


Figure 61: Cross-Section Divided Carriageway.

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.
2. To provide for the logical development of the URA based on the cost effective provision and availability of infrastructure and servicing arrangements.

#### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 58.
2. The Lochinvar URA Staging Plan is to be read in conjunction with the Lochinvar Structure Plan, the Lochinvar Section 94 Contributions Plan and the Maitland Section 94 Contributions Plan (Citywide).
3. Development Applications will need to consider road and drainage infrastructure connection and sequencing in accordance with threshold limitations.
4. Development Applications will require evidence of satisfactory arrangements for essential services, including water and wastewater servicing. The release of allotments will be dependent on the satisfactory provision of reticulated water and wastewater services.
5. Development Applications shall incorporate road networks, stormwater detention areas, active and passive recreation areas, consistent with the overall staging and intended development outcomes for the Lochinvar URA.
6. Where it can be demonstrated that only a minor upgrade is required to existing water and wastewater infrastructure in order to enable any proposed urban development within the Lochinvar URA to be serviced (irrespective of Figure 58), Council shall require evidence of satisfactory arrangements from Hunter Water Corporation to support any Development Application for that land. In such circumstances, adherence to the Lochinvar URA Staging Plan (Figure 58) will be unnecessary.

7. Where any proposal is made to amend the proposed Lochinvar URA Staging Plan (Figure 58) for reasons relating to infrastructure upgrades that may increase capacities within each stage of the Lochinvar URA, any such proposal would need to be informed by variations to the water and wastewater servicing strategies prepared by Parsons Brinckerhoff in August 2011, and would need to be endorsed by Hunter Water Corporation, as occurred with those previous strategies.

## 1.2 Transport and Movement

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel.
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. Development Applications are to include an overall transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. The overall movement hierarchy for each Development Application for urban development should be consistent with Figure 57 and Figure 59.
3. The overall pedestrian and cycleway links should be consistent with Figure 59, and the Recreation and Community Facilities Plan, which is identified in the associated Lochinvar Section 94 Contributions Plan.
4. The primary access for residential development in Stage 1 of the Lochinvar Urban Release Area is to be provided off the New England Highway, in accordance with Figure 57.
5. Perimeter roads as per Figure 60 shall be a minimum pavement of 8 metres wide. Pavement widening may need to be increased subject to lot catchment yield. Additional parking in between the road pavement and off road shared path shall be provided at points of interest, e.g. parks, open space.
6. No new lot shall have direct vehicular access to the New England Highway or Winders Lane.
7. Subdivisions adjacent to the New England Highway should orientate allotments and dwellings to face the main road, with suitable internal roads providing access, and suitable landscaping separating the allotment boundaries and main road.



8. Development Applications shall consider the proximity of the nominated community facilities and recreation areas identified in the subject DCP chapter and the relevant Section 94 Contributions Plan applying to the Lochinvar URA when designing subdivision layouts and movement linkages between adjoining sites.
9. Land is to be developed in walkable distances of up to 400m to a bus route, pedestrian network and local park, to promote sustainable communities.
10. Development Applications shall incorporate road networks that support the overarching traffic study for the Lochinvar URA in accordance with Figure 57, Figure 59 and Figure 60 of this DCP.
11. Traffic management facilities for the Lochinvar URA are to be provided in accordance with Figure 57 and the relevant provisions of the Lochinvar Section 94 Contributions Plan.
12. Development Applications are to be supported by appropriate Traffic Impact Assessments (as required by the NSW Roads and Maritime Services), in order to ensure that capacity exists in the local road network to accommodate the anticipated overall development yield for the Lochinvar URA.
13. The subdivision layout shall provide well connected and multiple route options for all modes of transport (pedestrian, cycle, bus and vehicle). The design of pedestrian, cycle and bus routes shall take precedence over vehicle routes. The provision of roads suitable for bus services shall provide for an adaptable growing network.
14. Bus routes shall be provided to facilitate 400 metres maximum walking distance for primary routes with bus stop location generally around 300m spacing.
15. Subdivision shall provide transport infrastructure such as pedestrian facilities (i.e. refuges/crossing points, footpath and cycle routes) and bus facilities (i.e. laybys, stops, shelters) for future and current school and public bus services.
16. Public infrastructure shall to be upgraded on public land as deemed necessary as a result of; the increased demand, to connect to nearby, or as listed in council documents. i.e. footpaths, road and drainage infrastructure, pedestrian and bus facilities.
17. Some existing roads are subject to road widening as shown in Figure 57. Consultation with Council is required to determine relevant widths and if the subject road is identified in the Lochinvar Section 94 Contributions Plan.
18. The following roads have pavement and verge widths that are substandard to MOES as they are retrofitting existing laneways to residential streets:
  - Station Lane to Robert Road from New England Highway to Christopher Road;
  - Christopher Road to Gregory Street from Station Lane to Robert Road.

### **1.3 Overall Landscaping Strategy**

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.

2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
4. A series of residential neighbourhoods are to be designed throughout the Urban Release Area to create a sense of identity, through distinct landscape and built form elements.

### Development controls

1. Each Development Application is to include a landscaping strategy for the protection and enhancement of riparian areas and remnant vegetation, visually prominent locations, noise sensitive areas, and detailed landscaping requirements for the public and private realm.
2. Landscaping will be required on land adjacent to major intersections, all collector roads, Station Lane, Northern access roads and Southern Ring Road so as to soften the visual impact of all built elements, creating attractive streetscapes when viewed by passing traffic and pedestrians.
3. From the Western approach into Lochinvar, avenue type plantings are to be provided on the approach to the St Helena intersection and continue on towards the Windermere Road intersection. On the Eastern approach, it is recommended that avenue type plantings be provided from the Wyndella Road intersection, representing the gateway into Lochinvar from Rutherford, through to the civic precinct, taking care not to screen the buildings or their visual catchment not to screen the buildings or their not to screen the buildings or their visual catchment.
4. The landscaping strategy shall provide a 15-metre landscaping buffer adjoining the Southern extent of the Freeman Drive large lot residential subdivision, within the nominated 'Freeman Drive 15m vegetation buffer' shown in Figure 56.
5. The landscaping strategy shall provide extensive tree planting to the edge of existing riparian areas, with visual breaks where streets terminate in views to the riparian areas.
6. Subdivision design shall have regard to the integration of existing residences within the Lochinvar URA with any new development, including, where deemed necessary, the provision of suitable landscape treatments to provide visual relief and minor separation distance between existing and future residential developments.
7. Subdivision and housing design is to take advantage of significant and attractive views overlooking the surrounding rural lands by orienting streets and locating public space to capture views.
8. Future subdivision design is to incorporate the areas of native vegetation into the character and design of the development, and provide for links between areas of remnant vegetation creating improved habitat value and filter strips along watercourses.

9. Identification and retention of hollow bearing trees and mature trees is necessary when preparing Development Applications and considering future subdivision design.
10. Riparian buffers shall be maintained around identified watercourses, in accordance with relevant State Government guidelines pertaining to minimum buffer widths.
11. Future development and landscaping is to recognise the cultural plantings located at St Helena (along the New England Highway) and Clifton, and where necessary, shall be designed to complement rather than compete with established features.

#### **1.4 Passive and Active Recreation Areas**

##### Objectives

1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

##### Development controls

1. The network of passive and active recreational areas should be provided generally in accordance with Figure 59.
2. Subdivision of land and the network of passive and active recreational areas should be consistent with that identified in Figure 59 and Community Facilities Plan, which is identified in the associated Lochinvar Section 94 Contributions Plan.

#### **1.5 Stormwater and Water Quality Management**

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. The stormwater and water quality management controls shall be consistent with the principles of Water Sensitive Urban Design (WSUD) Targets.
2. The number and location of WSUD elements should be determined by modeling to develop the WSUD strategy for the site, and be integrated with the overall design and wider catchment.
3. Long-term maintenance costs are to be identified in the design of the WSUD elements and are to be submitted to Council for consideration prior to acceptance of the WSUD strategy.
4. Development Applications need to ensure that post-development stormwater flows do not exceed pre-development stormwater flows.
5. Development applications are to identify stormwater detention areas in accordance with the nominated locations identified in Figure 64, and supported by the flood Study prepared by ADW Johnson dated September 2015. It should be noted that the locations of the stormwater detention basins form part of the wider trunk drainage network, to which developers will be required to make contributions under the Lochinvar Section 94 Contributions Plan.
6. Stormwater calculations shall be based upon the ultimate development state of the catchment. The time of concentration is the time from the most remote part of the catchment to the catchment outlet. (ie from the top of Greedy Creek and Lochinvar Creek to the New England Highway).
7. No development can occur in the Greedy Creek or Lochinvar Creek catchments unless sufficient regional basin(s) are constructed to mitigate any impacts on Hunter Close catchment.
8. Minimum road widths may need to be increased on account of WSUD features such as swales.
9. Swales may be accepted where it can be demonstrated that they will meet Council's performance and maintenance objectives and facilitate safe and effective movement of pedestrians and vehicles.
10. Swales may be considered on the outside of perimeter roads where no residential access is provided. Swales shall not exceed 4% gradient.
11. Flow control measures shall be used where grades in swales exceed 4%.
12. Where practical, WSUD elements may be incorporated in a centre depressed median of dual carriage roads.
13. Wherever possible, existing natural drainage gullies should form part of a stormwater and runoff drainage management system. Detention basins and / or wetlands to alleviate stormwater peaks and retain pollutants can be considered on-line only for 1<sup>st</sup> and 2<sup>nd</sup> order streams.
14. Wetlands should be well-designed creating an attractive and safe amenity, and be highly visible for both the adjoining residents and passers-by.
15. Walking paths should have frequent contact adjacent to the wetland edge.
16. Vegetation should be designed such that generous unobstructed view of the wetland is available.
17. Emergent macrophytes should be minimal and manageable.
18. Slopes surrounding wetlands should be gentle and offer convenient tractor-mowing access.



19. Flat grassed areas that potentially may be water-logged should be avoided.
20. Gullies intended to be left in their natural state should be assessed, and if necessary enhanced to offset the need for maintenance.
21. In general, grassed areas must be kept to a minimum for maintenance purposes, and wetland and gullies should offer a sense of ownership to the public.

## **1.6 Amelioration of Natural and Environmental Hazards**

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from incompatible land uses, including road and rail corridors.

### Development controls

1. Development Applications are to provide for the amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected.
2. Submission of a bushfire threat assessment is a requirement for any Development Application involving bushfire prone land within the Lochinvar URA.
3. Development Applications will need to investigate soil salinity levels, soil structure/stability and Acid Sulfate Soils as part of geotechnical investigations associated with the site.
4. Phase 1 site contamination studies are required for each Development Application, with Phase 2 site contamination studies likely to be required in some areas of the site. The areas required for Phase 2 site contamination assessment shall be determined by the outcomes and recommendations of Phase 1 site contamination studies prepared for each Development Application. Any Phase 1 or Phase 2 site contamination studies should have regard to the site contamination assessment completed by Barker Harle Pty Ltd submitted with the rezoning proposal for the Lochinvar URA.
5. The affected areas of those sites in the Northern extent of the Lochinvar URA that are prone to inundation as a result of either (i) the 1:100 ARI plus 0.5m flood event; or (ii) localised storm event flooding from Lochinvar Creek, are not to be further developed for residential purposes.
6. Impacts from localised storm event flooding generated from Lochinvar Creek are to be considered as part of relevant Development Applications within the site, with reference to the overarching stormwater and flood study prepared by ADW Johnson as a basis for determining impacts from future developments in the URA.

7. Rail noise is expected to impact the Southern extent of the Lochinvar URA, predominantly to the South of Cow Hill Road.
8. Future residential buildings will be required to achieve the following mandatory internal noise goals (measured in LAeq) contained within Clause 87 of State Environmental Planning Policy (Infrastructure) 2007:
  - In any bedroom in the building – 35dB(A) at any time between 10pm and 7am;
  - Anywhere else in the building (other than a garage, kitchen, bathroom or hallway) – 40dB(A) at any time.
9. ARTC also recommend that external amenity be considered when larger scale new residential release areas are proposed near a rail corridor and suggest that an appropriate noise goal in this regard should be 80LAmax.
10. Figure 56 shows the extent of the 60dB(A) Leq 9hr (night-time 2022) noise contour as extracted from the Australian Rail and Track Corporation “*Maitland to Minimbah Third Track Operational Noise and Vibration Review (Public)*” dated June 2013. The purpose of including this noise contour in the DCP is to give a potential developer a spatial appreciation of where specialised acoustic controls are likely to be required in the development of the URA. For land to the North of the 60dB(A) contour, conventional residential construction will most likely enable the internal noise goals of the SEPP to be achieved. For land within, or in close proximity to, the 60dB(A) contour (closer to the rail corridor), specialised acoustic treatments are likely to be needed in the form of improved noise attenuation treatments to individual residences or mitigation in the form of noise barriers adjacent to the rail corridor – or perhaps a combination of these.<sup>2</sup>
11. Independent acoustic and vibration reports prepared in accordance with the NSW EPA “Rail Infrastructure Noise Guideline 2013” shall be submitted with Development Applications for all land to the South of Cowhill Road, which includes land South of the 60dB(A) indicative rail noise contour, to identify potential impacts and mitigating measures associated with development located in proximity to the Main Northern Railway Line.
12. While rail vibration must be properly assessed as part of the development application process, the “*Maitland to Minimbah Third Track Operational Noise and Vibration Review (Public)*” suggests that vibration impacts are not likely to be significant outside the range of 40-50m from the nearest rail line.
13. Appropriate subdivision design and lot layout together with mitigation works (where necessary) can help reduce the impacts of rail noise and vibration on residential buildings and outdoor private spaces.

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<sup>2</sup> The Eastern end of the 60dB(A) contour is shown as an indicative contour only given the termination point of the survey and modelling undertaken under the “*Maitland to Minimbah Third Track Operational Noise and Vibration Review (Public)*”.

14. Given the potential impacts from coal dust and pollution/emissions from rail movements development applications proposing residential lots and/or buildings within 50m<sup>3</sup> of the Main Northern Railway Line shall include a detailed air quality assessment carried out by a suitably qualified consultant. The air quality assessment zone is shown in Figure 56.
15. Subdivision design and lot layout must ensure that any future residential housing will not be adversely affected by noise or vibrations from rail movements along the Main Northern Railway Line or from vehicle movements along the New England Highway.
16. Development Applications that include development on land within 120m of the New England Highway will require preparation of an acoustic assessment to determine individual construction standards for residential buildings within the performance- based area shown in Figure 56.
17. Future residential buildings within 120m of the NEH will be required to achieve the following mandatory internal noise goals (measured in LAeq) contained within Clause 102 of State Environmental Planning Policy (Infrastructure) 2007:
  - In any bedroom in the building – 35dB(A) at any time between 10pm and 7am;
  - Anywhere else in the building (other than a garage, kitchen, bathroom or hallway) – 40dB(A) at any time.
18. Reference should be made to Figure 56 of this chapter, and the adopted Lochinvar Structure Plan 2007, in identifying key sites and visually sensitive areas within the Lochinvar URA that are of particular importance and should be considered when preparing visual impact assessments to support Development Applications.
19. Consideration should also be given to masterplan sites (see Figure 55) and visually prominent features from the New England Highway, including:
  - Airds of Lochinvar
  - St Helena Homestead and cultural tree plantings
  - All Saints College St Joseph's Campus
  - St Patrick's Church
  - Holy Trinity Church
  - Davron Hill/Jacobs Hill/Winders Hill/Summer Hill
  - Greta Reserve
20. Land to the East of Windermere Road extending to Lochinvar Creek has been identified as a visually sensitive area (see Figure 56) and Development Applications for this land should address and respond to this visual sensitivity.

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<sup>3</sup> The ARTC's "Maitland to Minimbah Third Track Environmental Assessment" dated May 2010 identifies the residential areas of Telarah, Rutherford, Farley, Greta and Branxton as sensitive receptors in relation to air quality. Given the location of the Lochinvar URA adjacent to the rail corridor, the locality is also considered a sensitive receptor and should be treated the same way as the abovementioned localities in determining air quality impacts. While air quality modelling results indicate that predicted operational air quality impacts (diesel and coal dust emissions) should be within relevant EPA air quality goals, a reasonable and conservative planning approach is to require site specific modelling of 'actual' emission levels close to the rail corridor over time as the development of the URA progresses.

21. Development Applications that include land adjoining the New England Highway shall employ appropriate mechanisms for managing the interface between residential development and the New England Highway, informed by either a visual impact study or statement (determined by the scale of the proposed development), in order to preserve the rural amenity and entrance into Lochinvar.
22. Development shall incorporate appropriate measures to prevent and control the impacts of erosion and sedimentation that may occur as a result of earthworks, localised development, subdivision works or the like within the Lochinvar URA. The relevant chapters of the Maitland Citywide DCP shall be considered in adhering to this requirement.

## 1.7 Aboriginal and European Heritage

### Objectives

1. Heritage items, buildings with heritage significance and conservation areas are protected.

### Development controls

1. Development Applications shall be supported by appropriate Aboriginal Heritage Impact Studies to determine the presence and locations of any Aboriginal artefacts or sites of significance, including methods for providing any necessary buffers within the site. When preparing an AHIS, reference shall be made to the recommendations of the Aboriginal Heritage Assessment and Management Plan completed by Mary Dallas Consulting Archaeologist Pty Ltd (dated August 2010), with specific attention paid to any Potential Archaeological Deposits identified in that assessment.
2. Development Applications shall include documented evidence of consultation with Local Aboriginal Land Councils and relevant government agencies.
3. Development Applications shall be prepared having consideration for items of European heritage identified in the Lochinvar Structure Plan, given the presence of heritage items throughout (and within close proximity to) the Lochinvar URA, and the visual significance of these items. Identified items include:
  1. Victoria House, Cantwell Road
  2. St Helena Cottage
  3. Holy Trinity Church
  4. Catholic Cemetery
  5. Police Station
  6. Clifton, Station Lane
  7. Government railway
4. Where required, any European heritage study shall incorporate an assessment of curtilage (including a map showing curtilage) for identified items, and shall include recommendations for the recognition and protection of any other items, should any be exposed as a result of further planning or construction processes.



## 1.9 Key Development Sites

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Development Applications are to include detailed urban design controls (including traffic management requirements and car parking designs where appropriate) for the following Key Development Sites:
  - Schools, libraries and community facilities
  - Gateway sites
  - St Helena Village
  - Airds of Lochinvar
  - Sisters of St Joseph Convent and surrounds
  - Lochinvar Police Station
  - Interface area adjoining Freeman Drive
  - Development adjoining the New England Highway and Main Northern Railway Line
  - Transport interchange
  - Civic precinct
  - Medium/High density residential areas
  - Lochinvar Town Centre.

### *Adjoining land zoned for environmental protection*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Any development or works within, or adjacent to the land zoned E3 Environmental Management are to ensure clearing of vegetation is minimised to the satisfaction of Council.
2. Mechanisms are to be put in place with development to ensure the integrity and protection of established vegetation and riparian areas zoned E3 Environmental Management. Details of how vegetation and riparian areas are proposed to be managed are to be included in all Development Applications affecting the E3 Environmental Management zone.
3. Development within residential zones must be designed and planned to ensure any Asset Protection Zones (APZs) and the like are not required or needed in the E3 Environmental Management zone.
4. Any APZs must be accommodated wholly within residential zones and shall not extend into the E3 Environmental Management zone.

### *Interface area South of Freeman Drive*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. Development on land adjoining the existing Freeman Drive subdivision to the South must be suitably located and designed so as to maintain view corridors and minimise any impacts on the existing neighbourhood amenity.
2. A vegetation buffer for the purposes of screening and visual amenity must be provided and maintained for a depth of 15m (within the 'no development' buffer) from the rear of existing allotments currently serviced by Freeman Drive. Figure 56 identifies this proposed buffer area.

### *Land adjoining the New England Highway and Winders Lane*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. No direct access shall be permitted to the New England Highway or Winders Lane for new residential allotments. Access to new residential allotments adjoining the New England Highway or Winders Lane shall only be via internal local roads.
2. A landscape buffer wholly contained within the allotments to be developed adjoining the New England Highway and Winders Lane shall be implemented for (i) all allotments adjoining the New England Highway between Robert Road and the Eastern extent of the Lochinvar Urban Release Area that adjoins the New England Highway, and (ii) all allotments adjoining Winders Lane.
3. The landscape buffer adjoining the New England Highway shall include design elements and construction materials that assist with reducing traffic noise generated from vehicles along the New England Highway. These design elements and construction materials shall be identified in a landscape plan supporting any Development Application upon land so affected.
4. The respective landscape buffers adjoining the New England Highway and Winders Lane are to be wholly contained within the affected allotments, with maintenance of the landscape buffer being the responsibility of the individual owners of the respective allotments. Figure 62 and Figure 63 illustrate the typical cross-section and possible fencing arrangements for the affected land.
5. The dimensioning of the New England Highway landscape buffer will be dependent on the results of acoustic modelling undertaken for land within the "120 metre performance-based area" illustrated in Figure 56 of this DCP chapter, and, where applicable, the results of any visual impact study relating to the land. Dwellings are to be set back from the New England Highway a

minimum distance of 30 metres. Residential allotments in this locality are to be designed to be of sufficient depth to accommodate this set back and dwelling footprint.

### *Airds of Lochinvar*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Any Development Application involving the “Airds of Lochinvar” site shall incorporate appropriate mechanisms to enable the continued functioning of the iconic building as a locally significant, commercial premises, given that the “Airds of Lochinvar” building and its surrounds are identified as a masterplan site (Figure 55). Only limited commercial activities at the site are supported (as permitted in the R1 General Residential zone), given the proposed neighbourhood shops to the North of the New England Highway and the future Town Centre will service the local community of Lochinvar. Expansion of the Airds site for additional/supplementary commercial activities would be inconsistent with the Maitland Activity Centres and Employment Clusters Strategy 2010.

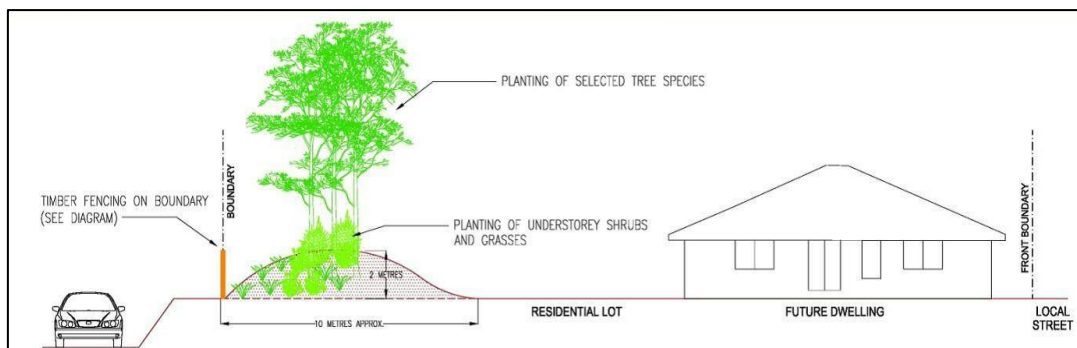


Figure 62: Landscape Buffer Typical Cross Section for Allotments Adjoining the New England Highway and Winders Lane.



Figure 63: Typical Timber Boundary Fencing for Allotments Adjoining the New England Highway and Winders Lane.

### 1.10 Residential Densities

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### 1.11 Neighbourhood Commercial and Retail Uses

#### Objectives

1. To accommodate and control appropriate neighbourhood commercial and retail uses.
2. To foster a sense of community and strong local identity and sense of place in neighbourhoods.

#### Development controls

1. Development Applications, where appropriate, are to include measures to accommodate and control appropriate neighbourhood commercial and retail uses.
2. Any Development Application that includes the land nominated for neighbourhood shops north of the New England Highway will need to address issues such as traffic and access, potential intersection locations, carparking, signage and other pertinent elements associated with commercial development in the locality.
3. Future detailed planning is required for the future Lochinvar Town Centre, following any future LEP amendment for a Town Centre in the Lochinvar URA. The Development Application for the Town Centre is to include detailed urban design controls (including traffic management requirements and carparking designs).



## 1.12 Provision of Public Facilities and Services

### Objectives

1. Suitably located public facilities and services are provided, including provision for appropriate traffic management facilities and parking.

### Development controls

1. Each Development Application is to include suitably located public facilities and services, including provision for appropriate traffic management facilities and parking (see Key Development Sites above).
2. Public transport should be addressed in Development Applications, with consideration made for overall network connectivity and access to bus stops and the Lochinvar Railway Station.
3. Development Applications that include land in the Southern extent of the site shall account for future expansion of the Lochinvar Railway Station and the potential for a transport interchange in this part of the site.
4. The release of allotments will be dependent on the satisfactory provision of reticulated water and wastewater services. Development Applications will therefore require evidence of satisfactory arrangements for water and wastewater servicing.
5. Development Applications shall incorporate indicative road networks (based on Figure 55 and the overarching traffic study prepared by URaP), stormwater detention areas, active and passive recreation areas and evidence of satisfactory arrangements for essential services.
6. Provision of community facilities and open space areas will be in accordance with the associated Lochinvar Section 94 Contributions Plan.
7. The location of a future secondary school within the site shall be located within an 800m walking distance of the transport interchange identified adjoining the Main Northern Railway Line.





## F.10 - Louth Park Area Plan

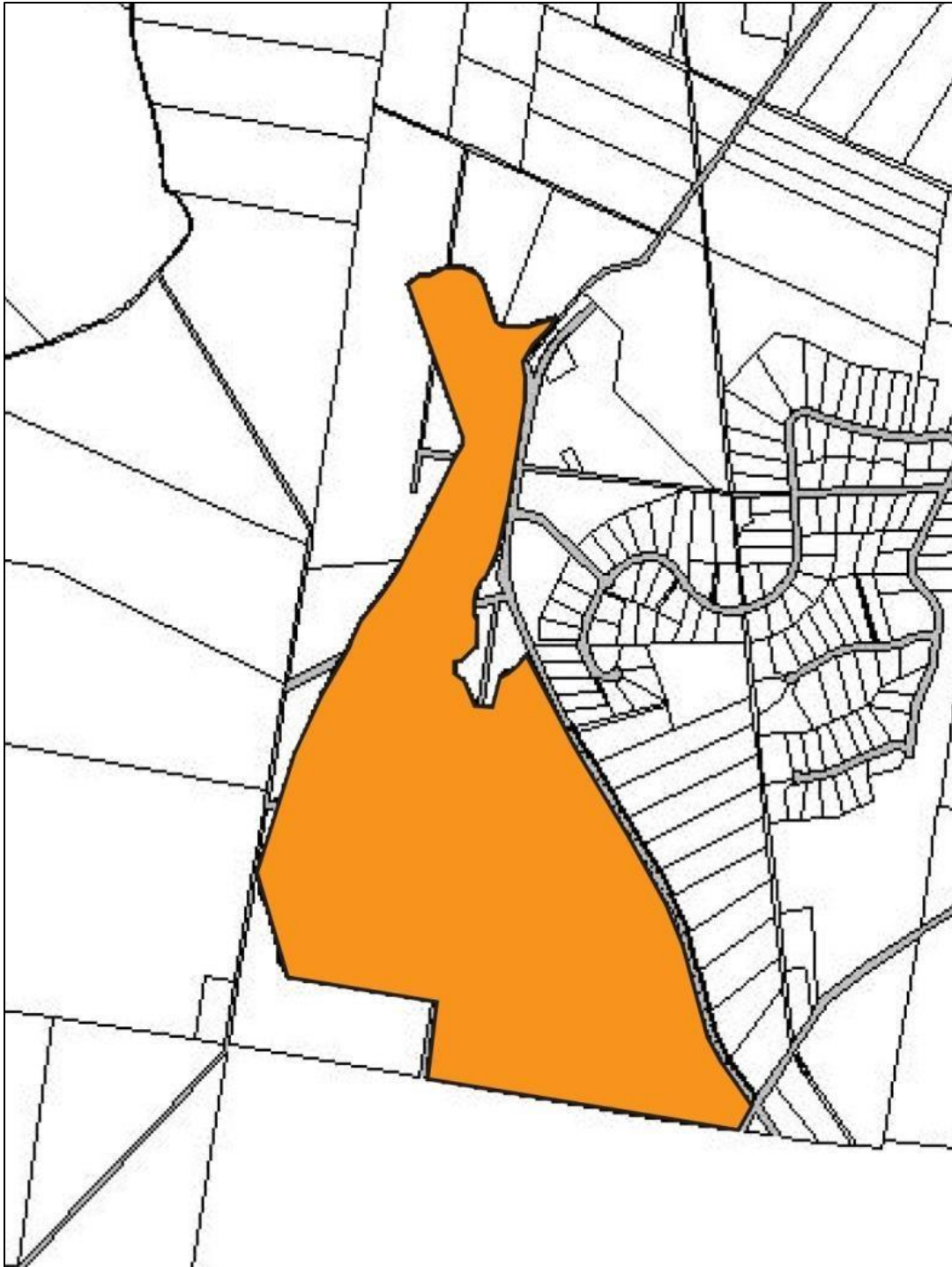


Figure 65: Louth Park Urban Release Area Plan.

## DESCRIPTION

The Louth Park Urban Release Area (URA) is located off Louth Park Road and Dagworth Road, adjoining the existing R5 Large Lot Residential subdivision known as Waterforde Estate and other rural allotments (See Figure 65).

The subject area is a natural extension to the adjacent large lot residential environment and is contained within the same visual catchment with a surrounding rural character. The URA has traditionally been used for grazing and is within the visual catchment of the Waterforde Estate, and is also visible from the north, south and west.

The area has several important characteristics and constraints that must be considered with any new development, including visual amenity, mines subsidence, road infrastructure standards, flooding, water quality, established vegetation, ecology and bushfire.

The area is capable of being serviced with reticulated water and sewer, electricity and telecommunications, subject to typical upgrades and augmentation.



# PRECINCT PLAN

The Louth Park Area Plan is comprised of precinct plans as shown in Figure 66.

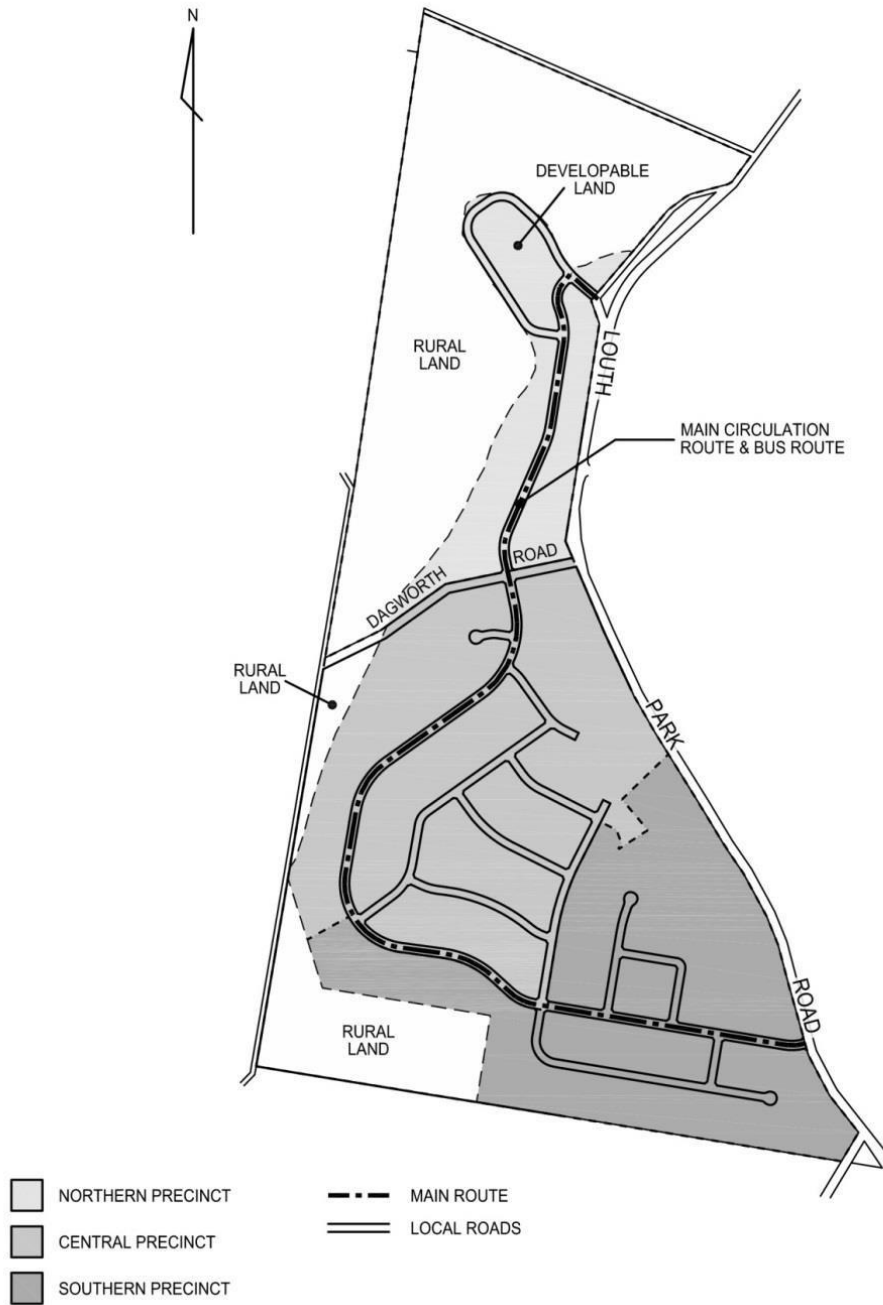


Figure 66: Louth Park Precincts and Road Hierarchy.

# STAGING PLAN

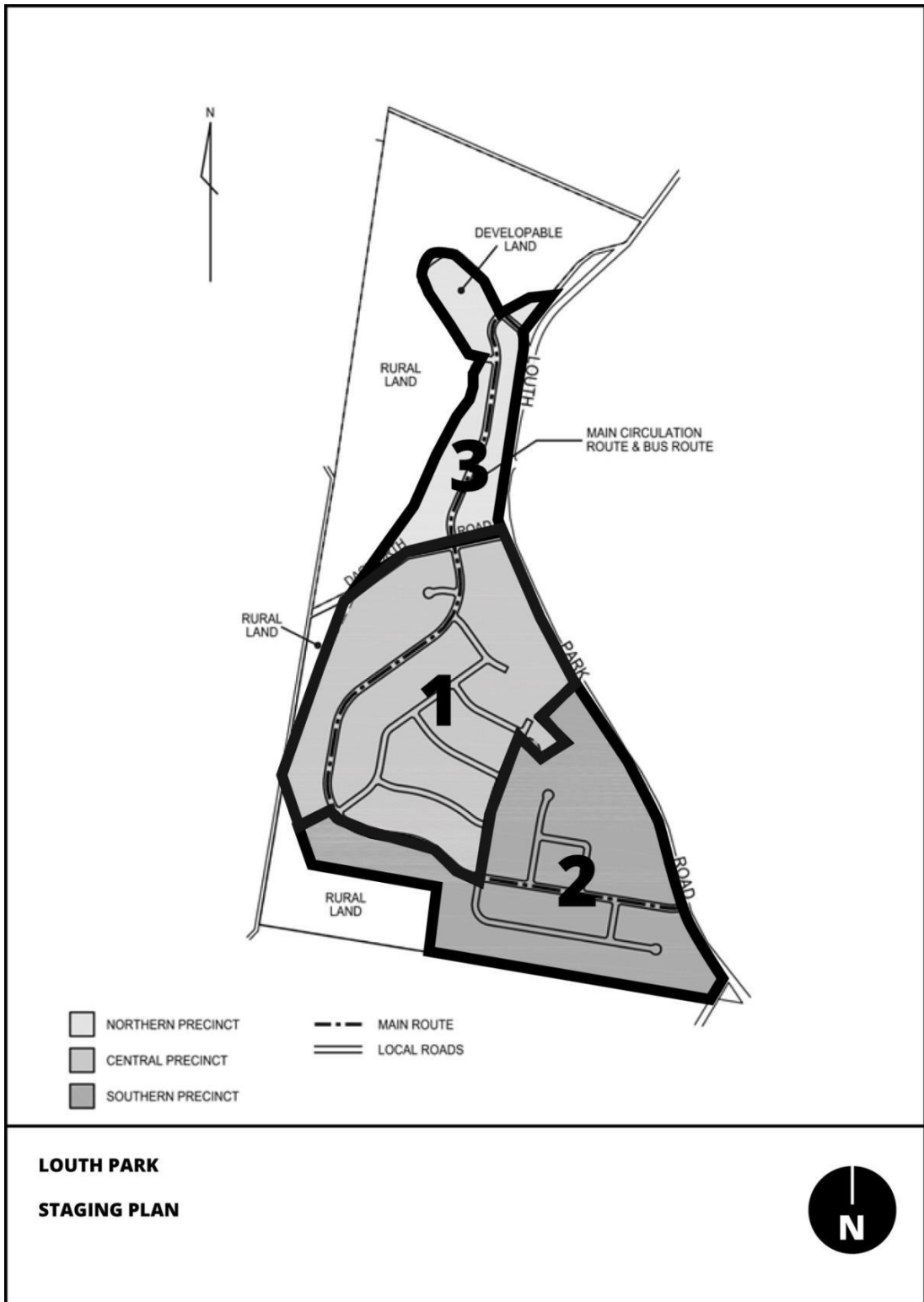


Figure 67: Louth Park Staging Plan.

## 1. Development Requirements – General Provisions

### 1.1 Staging Plan

Staging of development should generally accord with the Staging Plan as shown in Figure 67. The Staging Plan provides for the timely and efficient release of urban land and aligns with the precinct plans as shown in Figure 66.

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. Staging of the Urban Release Area and sequencing of urban development should be generally in accordance with [Figure 67](#).

### 1.2 Precinct Plans – General Provisions

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. Precinct Plans have been prepared for each precinct identified in Figure 66.

### 1.3 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. Each Precinct Plan includes an overall transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.

2. The overall movement hierarchy for each Precinct Plan is shown in the Road Hierarchy and pathway identified in Figure 66.
3. The transport movement hierarchy includes provision for pedestrians and cyclists connecting the northern, central and southern precincts and Louth Park Road.
4. The transport movement hierarchy identifies a bus transport route.

#### **1.4 Overall Landscaping Strategy**

##### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

##### Development controls

1. Each Precinct Plan includes an overall landscaping strategy for the protection and enhancement of any significant riparian area, hollow bearing trees and remnant vegetation, including visually prominent locations.
2. The overall landscaping strategy includes provisions to protect scenic values and existing significant vegetation within the site, particularly within, and adjacent to, the western ridgeline of the central precinct, and the northern ridgeline of the northern precinct.

#### **1.5 Passive and Active Recreation Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.6 Stormwater and Water Quality Management**

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.



4. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment, including Wallis Creek and the Hunter River.

#### Development controls

1. Each Precinct Plan includes stormwater and water quality management controls.
2. Stormwater and water quality management controls includes the general location of any trunk drainage, including any potential stormwater and water quality and quantity management controls and devices.

### **1.7 Amelioration of Natural and Environmental Hazards**

#### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from incompatible land uses.

#### Development controls

1. Precinct Plans provide for the amelioration of any significant natural and environmental hazards, including mines subsidence, geotechnical, bushfire, flooding and site contamination, along with the safe occupation of, and the evacuation from, any land so affected.

### **1.8 Key Development Sites**

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. There are parts of the Louth Park Urban Release Area that require specific design consideration to address site specific constraints. These are addressed in the Area Plan as Key Development Sites and include:
  - ridgelines and prominent rural skyline
  - Riparian areas
  - Shallow mine workings
  - Bushfire prone areas.

### **1.9 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

**1.10 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

**1.11 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

**PRECINCT PLAN - NORTHERN PRECINCT**

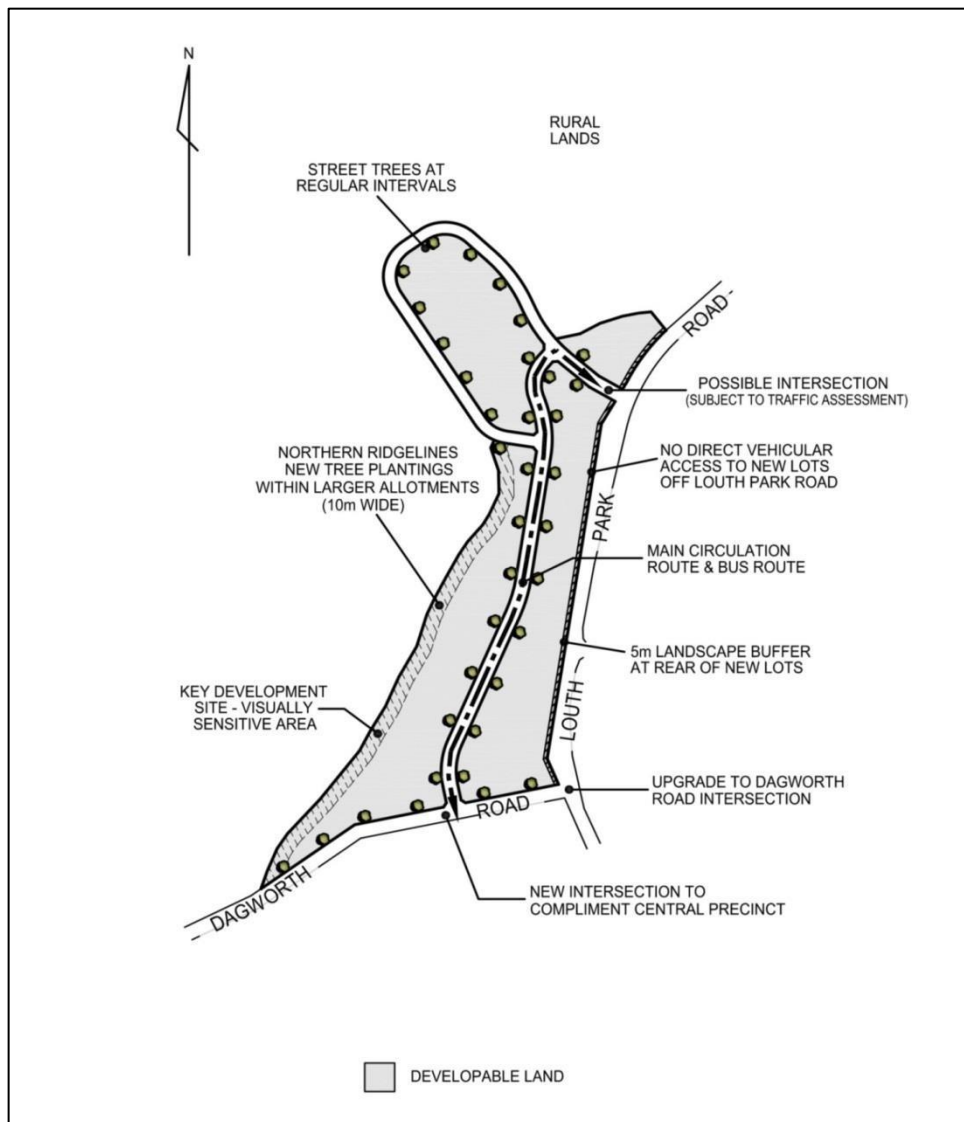


Figure 68: Northern Precinct and Road Hierarchy.

## 1. Development Requirements

The following provisions comprise the Precinct Plan provisions referred to in the general provisions above applying to the Northern Precinct.

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. The principal access to the North Precinct will be via a controlled intersection on Dagworth Road to coincide with, or compliment the access to the Central Precinct. This main circulation route may possibly connect with Louth Park Road in the northern extent of the precinct, dependent upon detailed traffic assessment reports, particularly safety at any new intersection.
2. Where practicable this main circulation route should accommodate a bus route. The main circulation route shall include a landscaped entry and planted median adjacent to the Dagworth Road intersection. The main circulation road shall have street tree plantings at regular intervals along its full length.(See Figure 69)
3. Road layout and street design will be consistent with the adopted Northern Precinct and Road Hierarchy Plan (Figure 68), and take into account detailed survey and subdivision planning. Road design and widths in this precinct are to

satisfy the aims and objectives of Council's engineering standards, but importantly provide for attractive streets.

4. No new lot shall have direct vehicular access to Louth Park Road, except where existing dwelling houses are to be redeveloped in a coordinated and orderly manner.

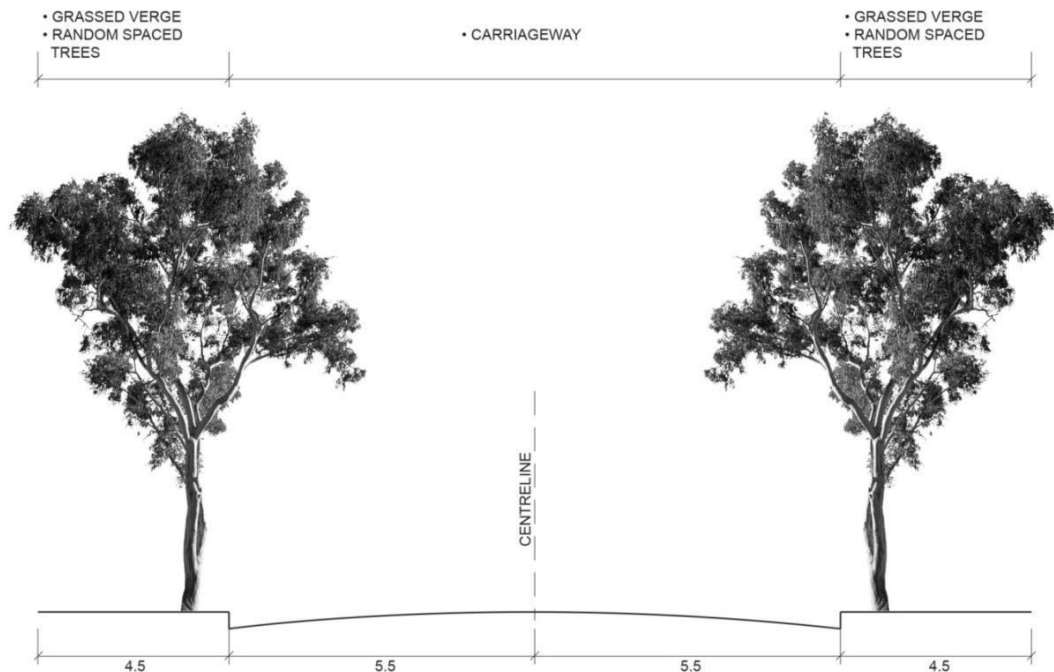


Figure 69: Main Circulation Route.

### 1.3 Overall landscaping strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
4. To enhance the natural landscape character of the area.
5. To ensure the landscaping and visual qualities of the area are maintained.

#### Development controls

1. Detailed landscaping plans will be submitted with all development applications for subdivision.



2. New landscaping will be required on residential allotments immediately adjacent to Louth Park Road, being a 5 metre wide buffer.
3. This landscaping buffer will be within allotments and maintained in perpetuity by way of a protective restriction as to user on title or covenant. This landscaping shall include native ground covers and shrubs to a maximum height of 1500mm so as to not hide the development, but improve visual amenity. The diagram (Figure 70) shows a typical cross section of the buffer.
4. Existing trees that are not affected by proposed new roads, infrastructure or buildings are to be retained where possible within riparian corridors, flood liable lands, road reserves and open space.
5. Existing mature trees within and adjacent to the Louth Park and Dagworth Road reserves should also be retained
6. Any re-vegetation proposals should be integrated with landscape plans and include, where possible, those areas supporting Endangered Ecological Communities (EEC).
7. Landscaping plans will include appropriate street tree plantings at regular intervals within the precinct, particularly along the main circulation road.
8. The precinct shall also have consistent post and rail timber fencing treatments to Louth Park Road and Dagworth Road frontages where fencing is needed for safety, security or visual enhancement.
9. Suitable landscaping is to be provided at key intersections on Louth Park Road and Dagworth Road providing attractive entrance statements.
10. Any individual allotment boundary fencing within the precinct be timber post and rail style, or similar open style rural fencing, and such requirements shall be reinforced and protected via mechanisms such as restrictions as to user on titles and covenants. Please refer to Figure 71 of typical fencing detail. If necessary for pets, safety or security, fencing may be modified to include the installation of wire or galvanized mesh.
11. A Visual and Scenic Impact Assessment is to accompany Development Applications for subdivision development within the precinct, and shall include proposed ameliorative measures such as new tree plantings and retention of existing mature trees within and adjacent to ridgeline areas and mid slopes to provide a vegetated skyline.
12. No new dwellings, garages or outbuildings shall be located within 15 metres of Louth Park Road. A 5m landscape buffer is to be provided along the boundary between the property and Louth Park Rd.
13. Building envelopes are to be positioned to retain existing vegetation and hollow bearing trees where practicable.
14. Where impacts are proposed on areas of biodiversity value, demonstration on how the proposal will meet the “improve or maintain” threshold will be required with the development application.

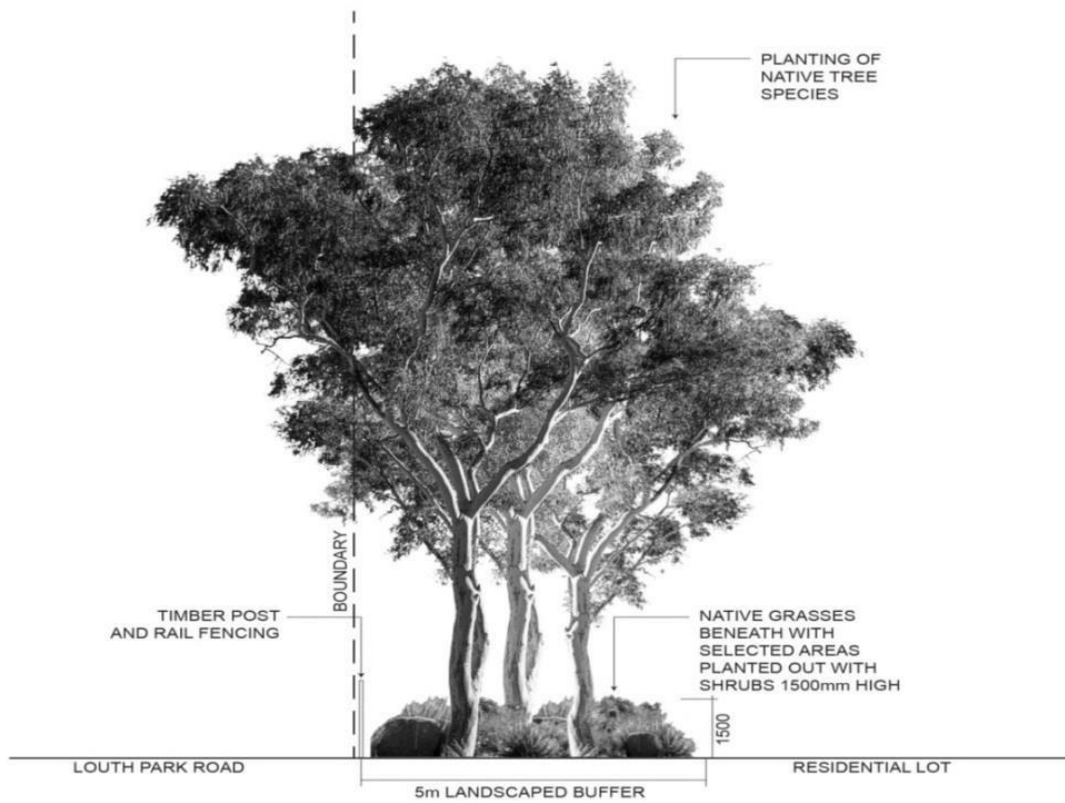


Figure 70: Landscape Buffer to Louth Park Road.

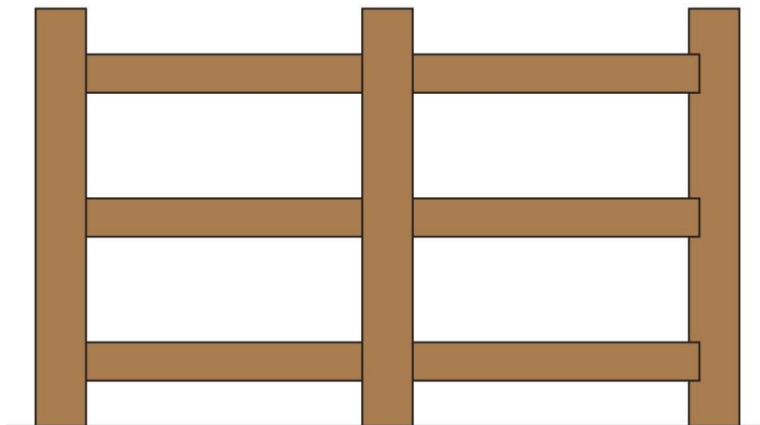


Figure 71: Typical Timber Boundary Fencing or Similar.

#### 1.4 Passive and active recreation areas

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

## 1.5 Stormwater and water quality management

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

### Development controls

1. Applications for subdivision shall include a stormwater management strategy for the precinct consistent with the principles for Water Sensitive Urban Design (WSUD).
2. The number and location of WSUD elements shall be determined by modeling to develop the WSUD strategy for the site and be integrated with the overall design.
3. Long term maintenance costs are to be identified in the design of the WSUD elements and are to be submitted to Council for consideration prior to acceptance of the WSUD strategy.
4. Swales maybe acceptable where it can be demonstrated that they will meet Council's performance and maintenance objectives and facilitate safe and effective movement of pedestrians and vehicles.
5. Flow control measures shall be used where grades in swales exceed 4%.
6. Wherever possible, existing natural drainage gullies should form part of a stormwater and runoff drainage system incorporating detention basins and/ or wetlands to alleviate stormwater peak and retain pollutants.
7. Wetlands should be well designed creating an attractive and safe amenity.
8. Slopes surrounding wetlands should be gentle and offer convenient tractor-mowing access.
9. Gullies intended to be left in their natural state should if necessary be enhanced to offset the need for maintenance.

## 1.6 Amelioration of Natural and Environmental Hazards

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from Louth Park Road.

### Development controls

1. Development applications for subdivision are to provide suitable flooding assessment reports to determine the impacts of development.
2. Any flood liable lands are to form part of overall stormwater management, and should not be filled to provide for new allotments and future dwelling sites. Any filling of drainage lines for subdivisions and roads is to be limited to that necessary to provide a practical and desirable urban design outcome which also satisfies Council's water quality and quantity standards. Written approval from the Office of Water is required for the filling of any gullies and drainage lines.
3. Any future dwelling sites must be located at least 0.5m above the 1% AEP flood level, and access to such dwellings shall be adequate and safe at appropriate gradients.
4. Any subdivision applications may require approval from the NSW Rural Fire Service and appropriate measures addressed such as Asset Protection Zone (APZ) if necessary in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.
5. Subdivision design and lot layout must identify and ensure that any future residential housing will not be adversely affected by noise or vibration from traffic along Louth Park Road. In this regard, new dwellings should be setback a minimum of 15 metres from Louth Park Road, and a landscaping buffer 5 metres wide provided adjacent to Louth Park Road to physically separate passing traffic.
6. The northern precinct is not affected by any known mines subsidence issues.
7. The lands have been identified as predominantly Class 5 acid sulfate soils. Class 5 are the lowest risk soils, and as such no further additional studies or reporting is considered necessary for development in the Large Lot Residential zone.
8. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## **1.7 Key Development Sites**

### *Ridgelines and slopes*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A Visual and Scenic Impact Assessment is to help inform the subdivision design and layout, and include landscaping measures to protect the prominent skyline. The development shall retain existing vegetation to screen and break up visual impacts. Areas along the ridgelines shall include larger allotments of a minimum 3000m<sup>2</sup>, so as to provide adequate land area to include new buildings, generous setbacks and appropriate landscaping. Subdivision design plans are to include cross-section plans for lots adjoining the ridgeline detailing building envelopes and buildings below the ridgeline.



## *Residual Rural Lands*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. A limited number of large allotments will be considered so as to sustainably maintain and manage the residue rural lands in accordance with the current Maitland LEP zoning.
2. Fencing of such allotments shall be of timber post and rail style (or similar) so as to minimise any visual impacts of development.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Archaeological Heritage**

### Objectives

1. Heritage items, buildings with heritage significance and conservation areas are protected.

### Development controls

1. Staff, contractors and construction and maintenance people involved in the development of the site are to be made aware of statutory requirements pertaining to archaeological sites and artefacts.
2. If site LP1 will be impacted by construction works a S.90 CTD (salvage) is required prior to any works.
3. If site LP2 will be impacted by construction works a S.90 (collect) is required prior to any works.
4. If PAD's 1, 2 or 3 will be impacted by any construction works a S.87 (test excavation) is required prior to any works.

## **1.10 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.11 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## PRECINCT PLAN - CENTRAL PRECINCT

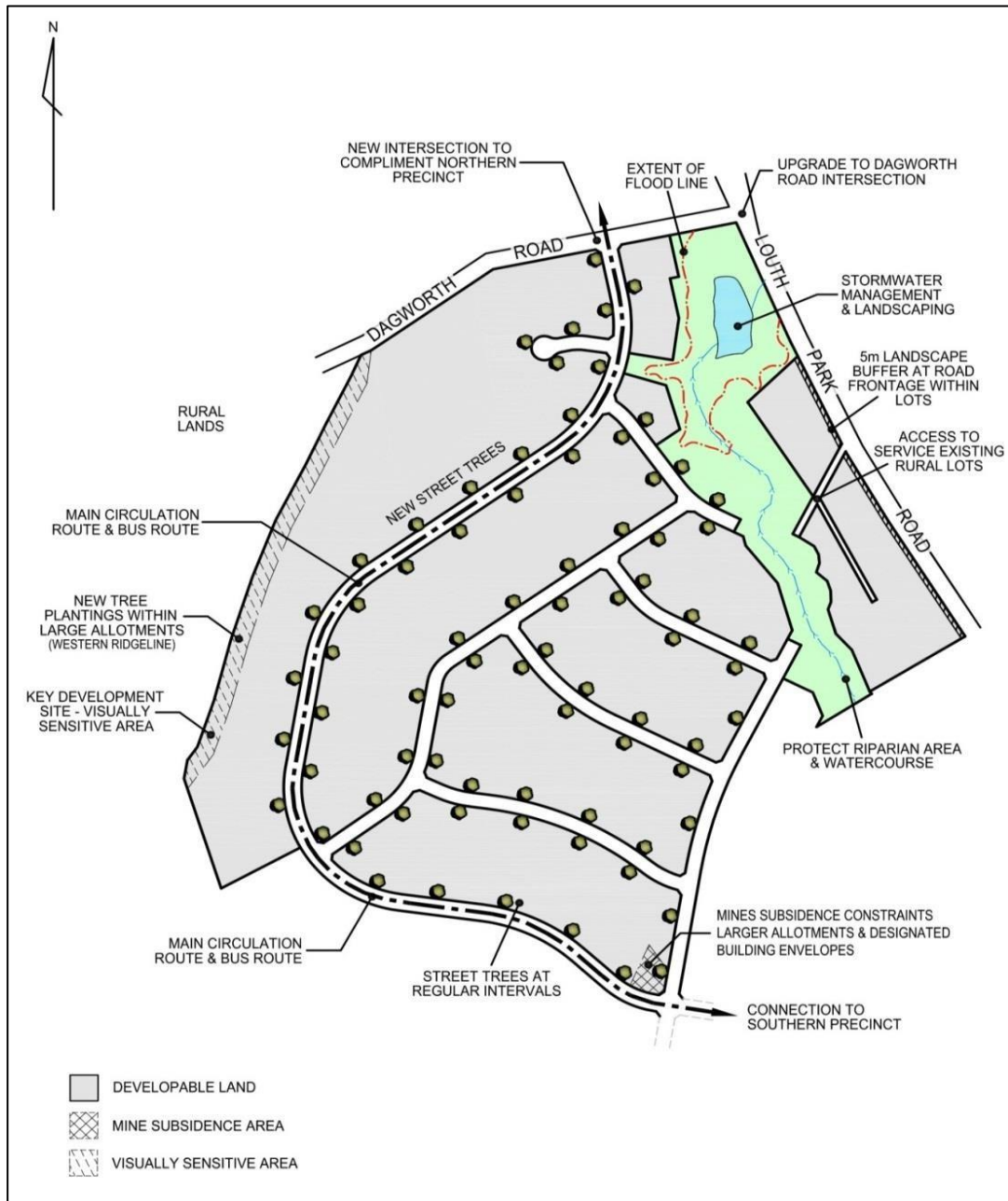


Figure 72: Central Precinct and Road Hierarchy.

### 1. Development Requirements

The following provisions comprise the Precinct Plan provisions referred to in the general provisions above applying to the Northern Precinct.

#### 1.1 Staging Plan

##### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

## **1.2 Transport and Movement**

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. The principal access to the Central Precinct will be via a controlled intersection on Dagworth Road, adjacent to and coinciding with the Northern Precinct. A main circulation route will link to the Southern Precinct before intersecting with Louth Park Road.
2. The main circulation route shall include a landscaped entry and planted median adjacent to the Dagworth Road intersection. The main circulation road shall have street tree plantings at regular intervals along its full length. See Figure 73 for typical road.
3. The specific details of the transport movement and road designs will be subject to a detailed traffic assessment with development applications for subdivision. The main circulation route should accommodate a future bus route.
4. Road layout and street design will be consistent with the adopted Central Precinct and Road Hierarchy Plan (Figure 72) and following detailed survey and subdivision planning. Road design and widths in this precinct are to satisfy the aims and objectives of Council's engineering standards, but importantly provide for attractive streets.
5. No new lots shall have direct vehicular access to Louth Park Road, except where traffic safety can be demonstrated and existing dwelling houses are to be redeveloped in a coordinated and orderly manner.



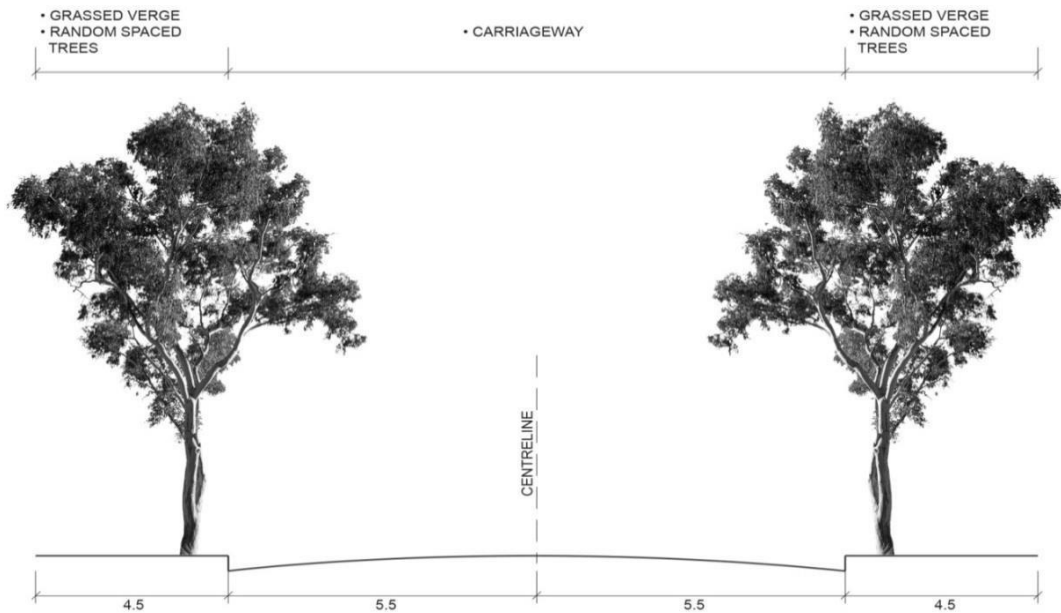


Figure 73: Main Circulation Route.

### 1.3 Overall landscaping strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
4. To ensure the landscaping and visual qualities of the area are maintained.

#### Development controls

1. Detailed landscaping plans will be submitted with all development applications for subdivision.
2. Landscaping will be required on any new allotment immediately adjacent to Louth Park Road, being a 5-metre wide buffer.
3. This landscaping buffer is to be practical, integrated with any vehicular access, safe sight distances and traffic safety in general.
4. Such buffer landscaping will be within allotments and maintained in perpetuity by way of a protective restriction as to user on title or covenant. The diagram (Figure 74) shows a typical cross-section of the buffer.

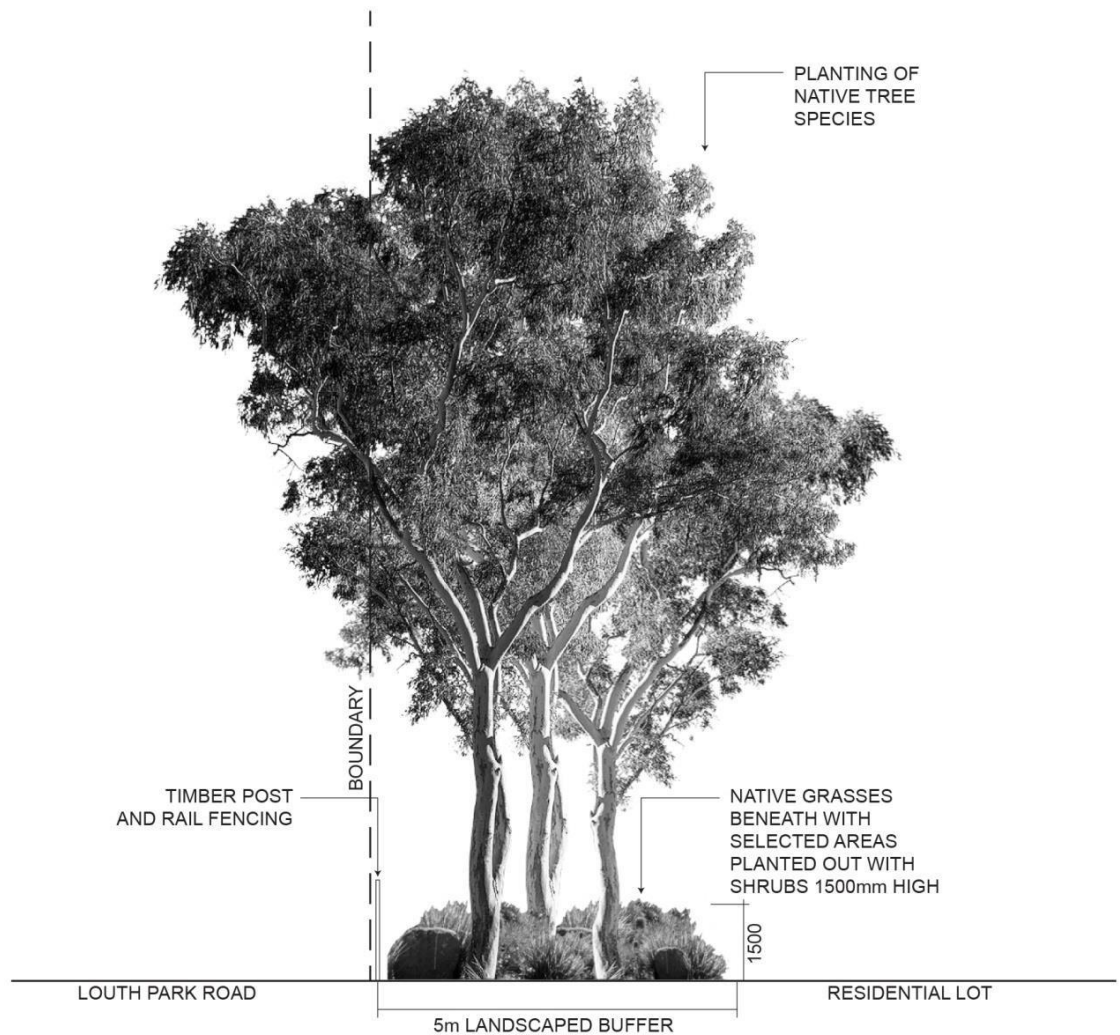


Figure 74: Landscape Buffer to Louth Park Road.

5. Existing trees that are not affected by proposed new roads, infrastructure or buildings are to be retained where possible within riparian corridors, flood liable lands, road reserves and open space. Existing mature trees within and adjacent to the Louth Park Road and Dagworth Road reserves should also be retained to enhance the natural landscape character of the area.
6. Any re-vegetation proposals should be integrated with landscape plans and include, where possible, those areas supporting Endangered Ecological Communities (EEC).
7. Landscaping plans will include appropriate street tree plantings at regular intervals within the precinct, particularly along the main circulation road. The precinct shall also have consistent post and rail timber fencing treatments to Louth Park Road and Dagworth Road frontages where fencing is needed for safety, security or visual enhancement. Similarly landscaping is to be provided at key intersections on Louth Park Road and Dagworth Road.
8. Any individual allotment boundary fencing within the precinct shall be timber post and rail style, or similar open style rural fence and such requirements shall be reinforced and protected via mechanisms such as restrictions as to user on

titles and covenants. Refer to Figure 75, a typical fencing detail for the Louth Park Area Plan. If necessary for pets, safety or security, fencing may be modified to include the installation of wire or galvanised mesh.

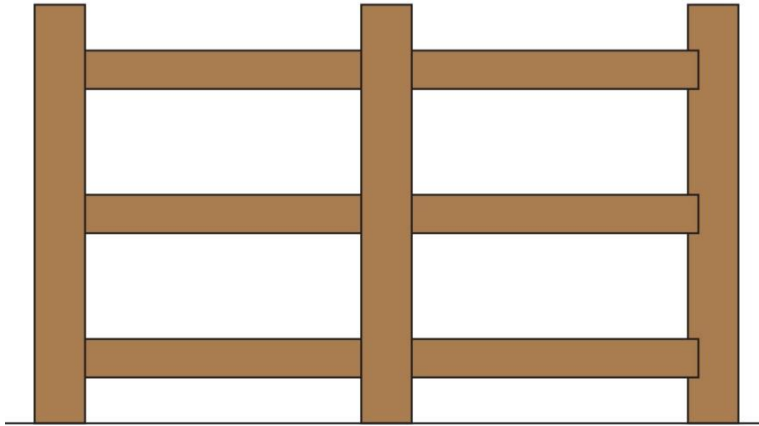


Figure 75: Typical Timber Boundary Fencing or Similar.

9. A Visual and Scenic Impact Assessment is to accompany Development Applications for subdivision development within the precinct, and shall include proposed ameliorative measures such as new tree plantings and retention of existing mature trees within and adjacent to ridgeline areas and mid slopes to provide a vegetated skyline in accordance with the Precinct Plan.
10. No new dwellings, garages or outbuildings shall be located within 15 metres of Louth Park Road. A 5m landscape buffer is to be provided along the boundary adjoining Louth Park Road.
11. Building envelopes are to be positioned to retain existing vegetation and hollow bearing trees where practicable.
12. Where impacts are proposed on areas of biodiversity value, demonstration on how the proposal will meet the “improve or maintain” threshold will be required with the development application.

#### **1.4 Passive and Active Recreation Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.5 Stormwater and Water Quality Management**

##### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.

3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

#### Development controls

1. Applications for subdivision shall include a stormwater management strategy for the precinct consistent with the principles for Water Sensitive Urban Design (WSUD).
2. The number and location of WSUD elements shall be determined by modeling to develop the WSUD strategy for the site and be integrated with the overall design.
3. Long term maintenance costs are to be identified in the design of the WSUD elements and are to be submitted to Council for consideration prior to acceptance of the WSUD strategy.
4. Swales maybe acceptable where it can be demonstrated that they will meet Council's performance and maintenance objectives and facilitate safe and effective movement of pedestrians and vehicles.
5. Flow control measures shall be used where grades in swales exceed 4%.
6. Wherever possible, existing natural drainage gullies should form part of a stormwater and runoff drainage system incorporating detention basins and/ or wetlands to alleviate stormwater peak and retain pollutants.
7. Wetlands should be well designed creating an attractive and safe amenity.
8. Slopes surrounding wetlands should be gentle and offer convenient tractor-mowing access.
9. Gullies intended to be left in their natural state should be assessed, and if necessary enhanced to offset the need for maintenance.
10. Any proposed alteration/modification to existing dams shall be supported by a report by a suitably qualified consultant targeting the Green and Golden Bell Frog. The target search is to be conducted during the appropriate months for this species.

### **1.6 Amelioration of Natural and Environmental Hazards**

#### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from Louth Park Road.

#### Development controls

1. Development applications for subdivision are to provide suitable flooding assessment reports to determine the impacts of development.
2. Any flood liable lands are to form part of overall stormwater management, and should not be filled to provide for new allotments and future dwelling sites. Any filling of drainage lines for subdivisions and roads is to be limited to that



necessary to provide a practical and desirable urban design outcome which also satisfies Council's water quality and quantity standards. Written approval from the Office of Water is required for the filling of any gullies or designated drainage lines.

3. Any future dwelling sites must be located at least 0.5m above the 1% AEP flood level, and access to such dwellings shall be adequate and safe at appropriate gradients.
4. Subdivision applications require approval from the NSW Rural Fire Service and appropriate measures addressed such as Asset Protection Zone (APZ) if necessary in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.
5. Subdivision design and lot layout must identify and ensure that any future residential housing will not be adversely affected by noise or vibration from traffic along Louth Park Road. In this regard, new dwellings should be setback a minimum of 15 metres from Louth Park Road, and a 5-metre landscaping buffer provided adjacent to Louth Park Road to physically separate passing traffic and provide a visual screen.
6. The Central Precinct is partly affected by mines subsidence issues, and accordingly detailed geotechnical investigations will be required to inform the future subdivision layout, allotment sizes, building design controls and any designated building envelopes. Any development application in the affected areas will require the approval of the Mines Subsidence Board and be supported by a Geotechnical report.
7. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## 1.7 Key Development Sites

### *Ridgelines and slopes*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A Visual and Scenic Impact Assessment is required to help inform the subdivision design and layout, and include landscaping measures to protect the prominent skyline. The development shall retain existing vegetation to screen and break up visual impacts. The area along the western ridgeline shall include larger allotments of a minimum 4000m<sup>2</sup>, so as to provide adequate land area to include new buildings, generous setbacks and appropriate new tree plantings. Roof lines of dwellings are not to protrude above the ridgeline. Dwellings associated with lots adjoining the ridgeline are to be single story design.

### *Residue Rural Lands*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A limited number of large rural allotments will be considered so as to sustainably maintain and manage the residue rural lands and wetlands.
2. Fencing of such allotments shall be of timber post and rail style or similar open style rural fence so as to minimise any visual impacts of development.

### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### **1.9 Archaeological Heritage**

#### Objectives

1. Heritage items, buildings with heritage significance and conservation Areas are protected.

#### Development controls

1. Staff, contractors and construction and maintenance people involved in the development of the site are to be made aware of statutory requirements pertaining to archaeological sites and artefacts.
2. If site LP1 will be impacted by construction works a S.90 CTD (salvage) is required prior to any works.
3. If site LP2 will be impacted by construction works a S.90 (collect) is required prior to any works.
4. If PAD's 1, 2 or 3 will be impacted by any construction works a S.87 (test excavation) is required prior to any works.

### **1.10 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.11 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## PRECINCT PLAN - SOUTHERN PRECINCT

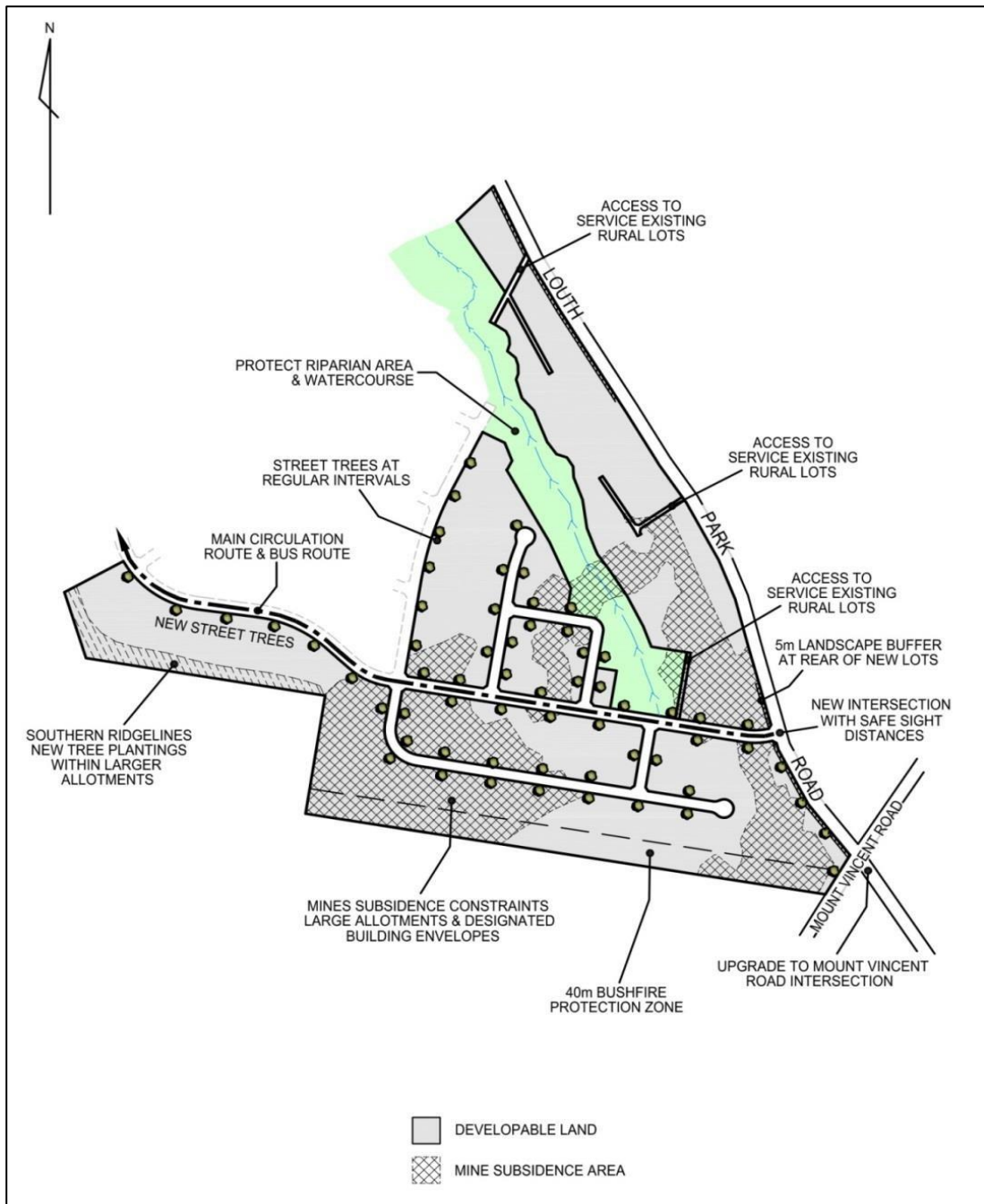


Figure 76: Southern Precinct and Road Hierarchy.

### 1. Development Requirements

The following provisions comprise the Precinct Plan provisions referred to in the general provisions above applying to the Southern Precinct.

## 1.1 Staging Plan

### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

### Development controls

1. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

## 1.2 Transport and Movement

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. The main access to the Southern Precinct will be via a new intersection at a suitable location with adequate sight distance on Louth Park Road. That access road shall connect with the main circulation route in the Central Precinct. See Figure 77 for typical road.
2. Road layout and street design will be consistent with the adopted Southern Precinct and Road Hierarchy Plan (Figure 76) and following detailed survey and subdivision planning.
3. No new future lot shall have direct vehicular access to Louth Park Road, except where existing dwelling houses are to be redeveloped in a coordinated and orderly manner.



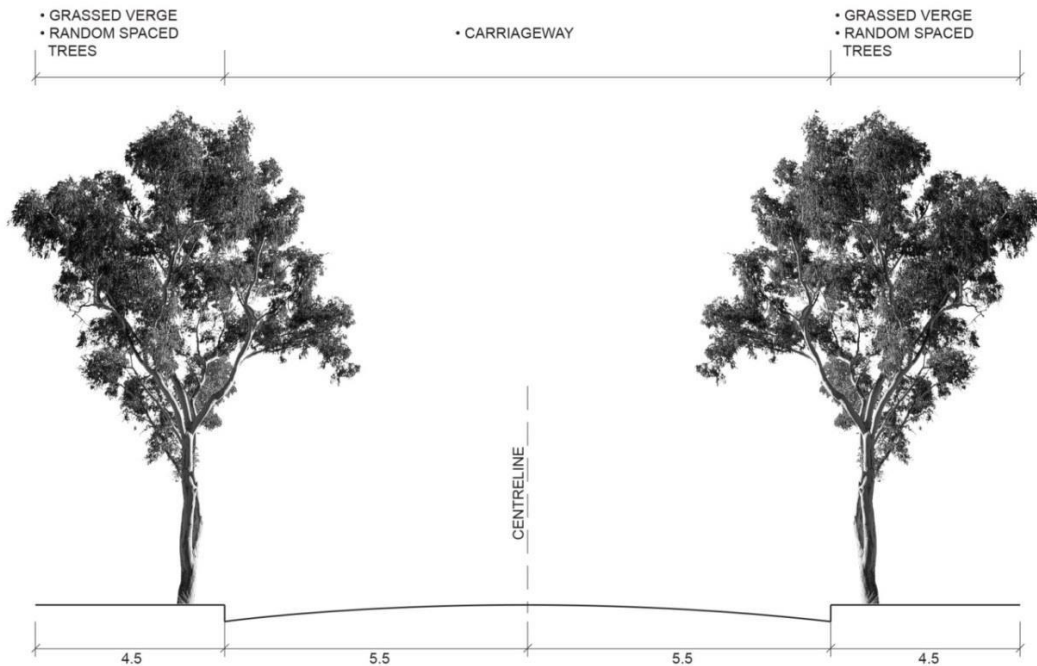


Figure 77: Main Circulation Route Cross-Section.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.
4. To ensure the landscaping and visual qualities of the area are maintained.

#### Development controls

1. Detailed landscaping plans will be submitted with all development applications for subdivision.
2. New landscaping will be required on residential allotments immediately adjacent to Louth Park Road, being a 5-metre wide buffer to soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic, pedestrians and properties to the north east. This landscaping buffer will be within allotments and maintained in perpetuity by way of a protective restriction as to user on title or covenant. This landscaping shall include native ground covers and shrubs to a maximum height

- of 1500mm so as to not hide the development, but improve visual amenity. The diagram (Figure 78) shows a typical cross section of the buffer.
3. Existing trees that are not affected by proposed new roads, infrastructure or buildings are to be retained where possible within riparian corridors, flood liable lands, road reserves and open space.
  4. Existing mature trees within and adjacent to the Louth Park Road and Mount Vincent Road reserves should also be retained to enhance the natural landscape character of the area.
  5. Any re-vegetation proposals should be integrated with landscape plans and include, where possible, those areas supporting Endangered Ecological Communities (EEC).
  6. Landscaping plans will include appropriate street tree plantings at regular intervals within the precinct, particularly along the main circulation road. The precinct shall also have consistent post and rail timber fencing treatments to Louth Park Road and any Mount Vincent Road frontages where fencing is needed for safety, security or visual enhancement.
  7. Any individual allotment boundary fencing within the precinct shall be timber post and rail style or similar open style rural fence and such requirements shall be reinforced and protected via mechanisms such as restrictions as to user on titles and covenants. Please refer to Figure 79 of typical fencing detail. If necessary for pets, safety or security, fencing may be modified to include the installation of wire or galvanised mesh.
  8. Given the surrounding rural landscape and the adjoining rural allotments a Visual and Scenic Impact Assessment is to accompany development applications for subdivision development within the precinct, and shall include proposed ameliorative measures such as new tree plantings and retention of existing mature trees within and adjacent to ridgeline areas and mid slopes to provide a vegetated skyline in accordance with the Precinct Plan. Design plans for proposed allotments adjoining the ridgeline are to include the location of building envelopes and cross-sections showing finished rooflines in regard to the ridgeline and appropriate treatment where necessary.
  9. No new dwellings, garages or outbuildings shall be located within 15 metres of Louth Park Road or 50 metres of Mount Vincent Road.
  10. Building envelopes are to be positioned to retain existing vegetation and hollow bearing trees where practicable.
  11. Where impacts are proposed on areas of biodiversity value, demonstration on how the proposal will meet the “improve or maintain” threshold will be required with the development application.

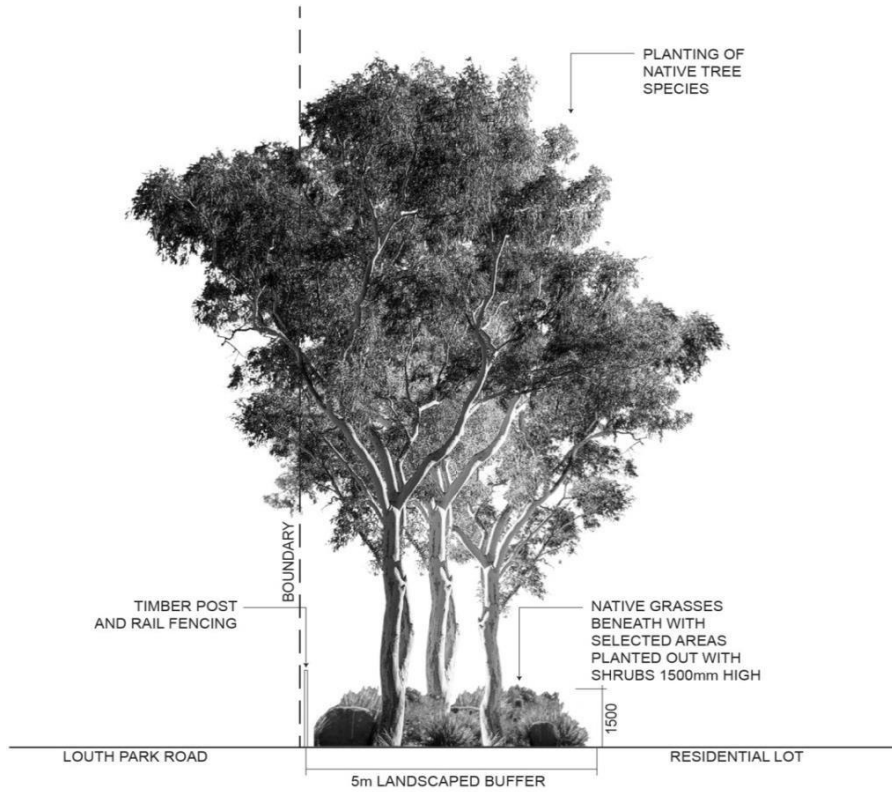


Figure 78: Landscape Buffer to Louth Park Road.

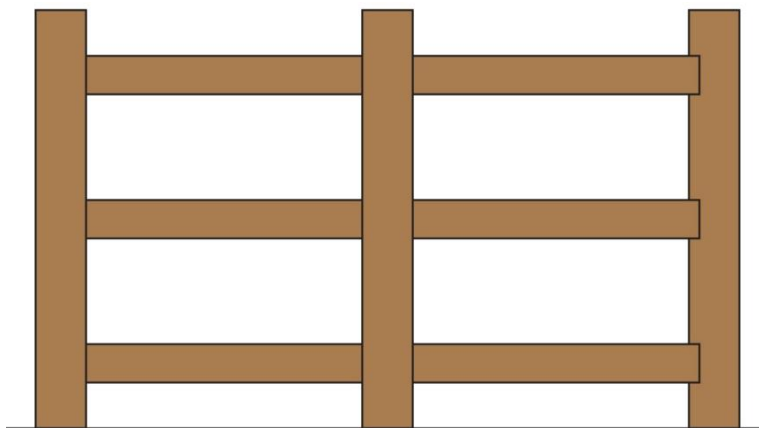


Figure 79: Typical Timber Boundary Fencing or Similar.

#### 1.4 Passive and Active Recreational Areas

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

## 1.5 Stormwater and Water Quality Management

### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.
4. Applications for subdivision shall include a stormwater management strategy for the precinct consistent with the principles for Water Sensitive Urban Design (WSUD).
5. The number and location of WSUD elements shall be determined by modeling to develop the WSUD strategy for the site and be integrated with the overall design.
6. Long term maintenance costs are to be identified in the design of the WSUD elements and are to be submitted to Council for consideration prior to acceptance of the WSUD strategy.
7. Swales may be acceptable where it can be demonstrated that they will meet Council's performance and maintenance objectives and facilitate safe and effective movement of pedestrians and vehicles.
8. Flow control measures shall be used where grades in swales exceed 4%.
9. Wherever possible, existing natural drainage gullies should form part of a stormwater and runoff drainage system incorporating detention basins and/ or wetlands to alleviate stormwater peak and retain pollutants.
10. Wetlands should be well designed creating an attractive and safe amenity.
11. Slopes surrounding wetlands should be gentle and offer convenient tractor-mowing access.

## 1.6 Amelioration of Natural and Environmental Hazards

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from Louth Park and Mount Vincent Road.

### Development controls

1. Subdivision applications require approval from the NSW Rural Fire Service and appropriate measures addressed such as Asset Protection Zone (APZ) where necessary in accordance with the NSW RFS Planning for Bushfire Protection (2006) guidelines.
2. All development applications in bushfire prone areas shall submit a bushfire assessment report.



3. Building envelopes are not to encroach upon the identified 40m Bushfire Protection Area as detailed in the southern precinct plan.
4. Subdivision design and lot layout must identify and ensure that any future residential lots and housing will not be adversely affected by noise or vibration from traffic along Louth Park Road or Mount Vincent Road. Also, a noise and vibration assessment report will be required to determine any impacts due to the nearby mining activities at Bloomfield Colliery.
5. New dwellings should be setback a minimum of 15 metres from Louth Park Road and 50m from Mount Vincent Road, and a landscaping buffer 5 metres wide (which may include existing vegetation) shall be provided adjacent to both roads to physically separate passing traffic.
6. The Southern Precinct is partly affected by shallow mine workings, and accordingly detailed geotechnical investigations will be required to inform the future subdivision layout, allotment sizes, building design controls and any designated building envelopes. Any development application in the affected areas will require the approval of the Mines Subsidence Board.
7. The geotechnical investigations are to include details of the depth of coal seam, height of workings, floor conditions and thickness of competent rock over mine workings to the satisfaction of the MSB.
8. No development over mine shafts or entry tunnels will be permitted. Shafts and tunnels are to be filled and capped to comply with guidelines provided by NSW Trade and Investment – Division of Resources and Energy.
9. At the completion of any geotechnical remediation works a qualified geotechnical engineer is to certify that the remediation of the mine workings has been achieved.
10. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.
11. There are no specific requirements for flooding.

## 1.7 Key Development Sites

### *Ridgelines and slopes*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A Visual and Scenic Impact Assessment is required to help inform the subdivision design and layout, and include landscaping measures to protect the views from the south along the southern ridgeline.
2. The development shall retain existing vegetation to screen and break up visual impacts.
3. The area along the southern ridgeline shall include larger allotments, so as to provide adequate land area to include new buildings, generous setbacks and appropriate landscaping, notwithstanding any mines subsidence constraints and requirements.

4. Design plans for proposed allotments adjoining the ridgeline are to include the location of building envelopes and cross-sections showing finished rooflines in regard to the ridgeline and appropriate treatment where necessary.

### *Residue Rural Lands*

#### Objectives

1. Detailed urban design controls are provided for significant development sites.

#### Development controls

1. A limited number of large allotments will be considered so as to sustainably maintain and manage the residue rural lands.
2. Fencing of such allotments shall be of timber post and rail style (or similar), so as to minimise any visual impacts of development.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Archaeological Heritage**

#### Objectives

Heritage items, buildings with heritage significance and Conservation Areas are protected.

#### Development controls

1. Staff, contractors and construction and maintenance people involved in the development of the site are to be made aware of statutory requirements pertaining to archaeological sites and artefacts.
2. If site LP1 will be impacted by construction works a S.90 CTD (salvage) is required prior to any works.
3. If site LP2 will be impacted by construction works a S.90 (collect) is required prior to any works.
4. If PAD's 1, 2 or 3 will be impacted by any construction works a S.87 (test excavation) is required prior to any works.

## **1.10 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.11 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

# F.11 - Farley Urban Release Area

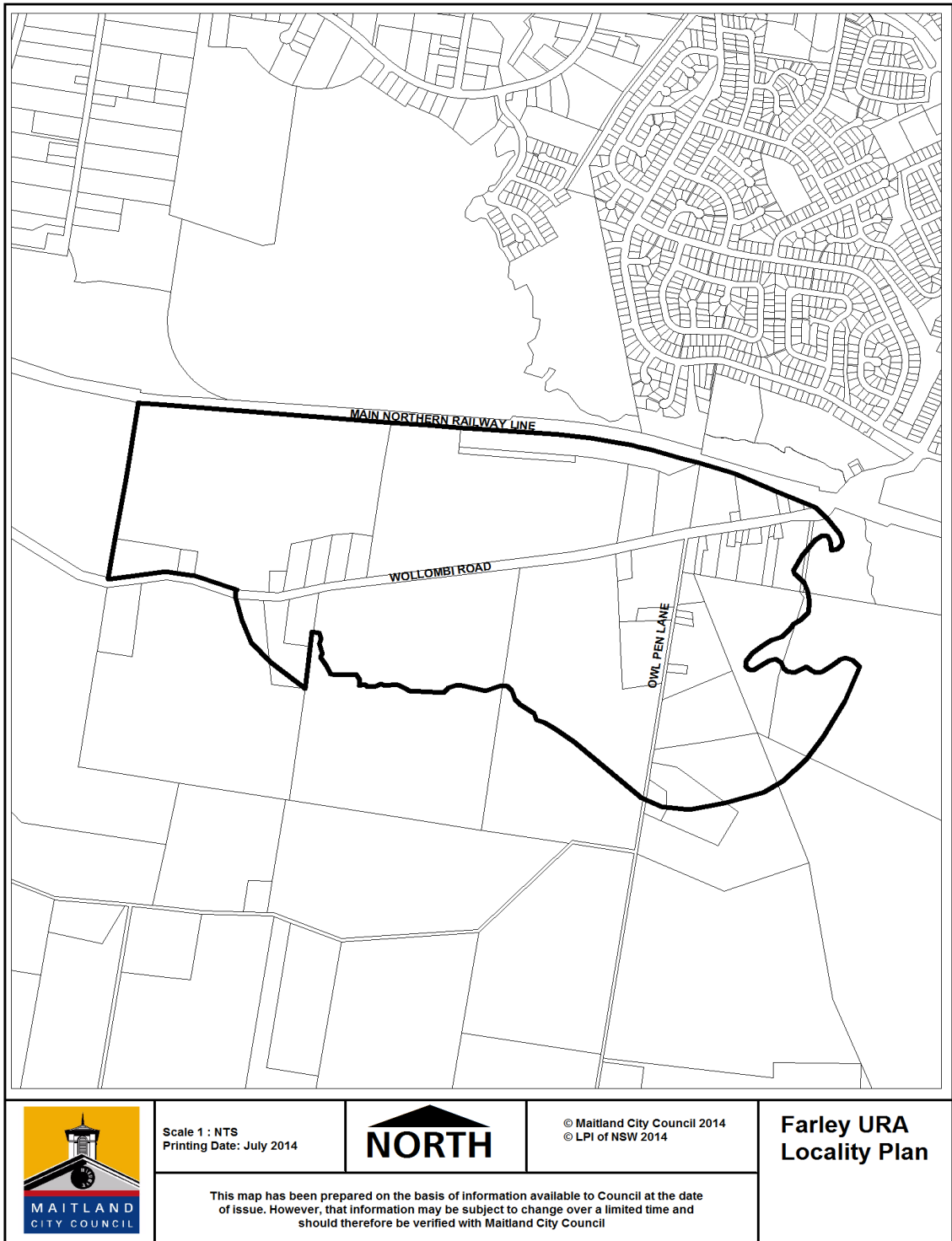


Figure 80: Farley URA Locality Plan.



## DESCRIPTION

The Farley Urban Release Area (URA) comprises a total of 160 hectares of land, with an approximate residential yield of 1,500 lots. The Lower Hunter Regional Strategy (Department of Planning, 2006) identifies the Farley URA as a regionally significant development area and is a key site to achieve the dwelling targets for population growth in the Lower Hunter.

The Farley URA is located immediately South of the Main Northern Railway Line. While no railway station currently exists at Farley, the proximity of the Farley URA to regional transport systems including the New England Highway and the Hunter Expressway are key elements to the identification of this area for urban development.

# FARLEY AREA PLAN

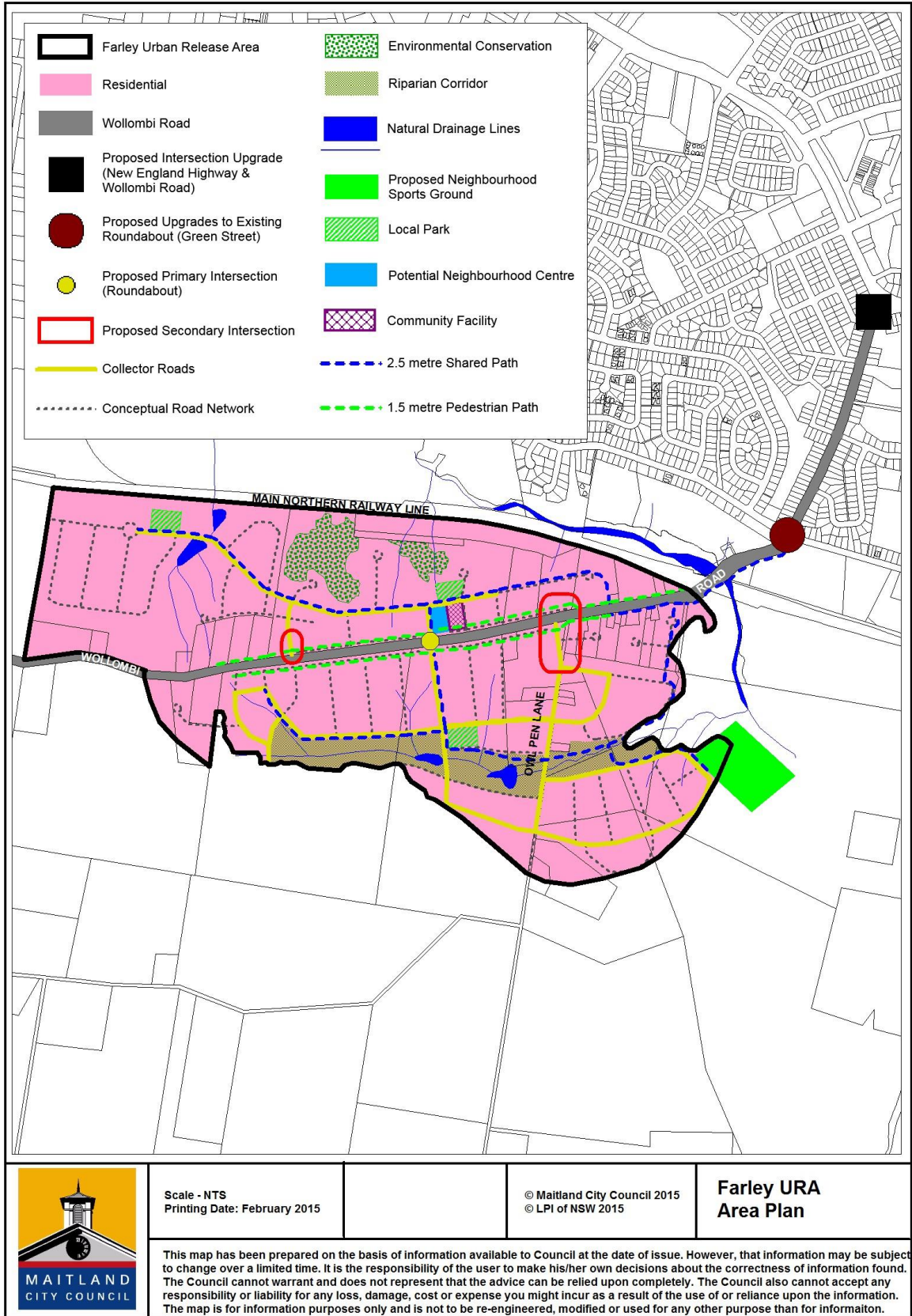


Figure 81: Farley URA Area Plan

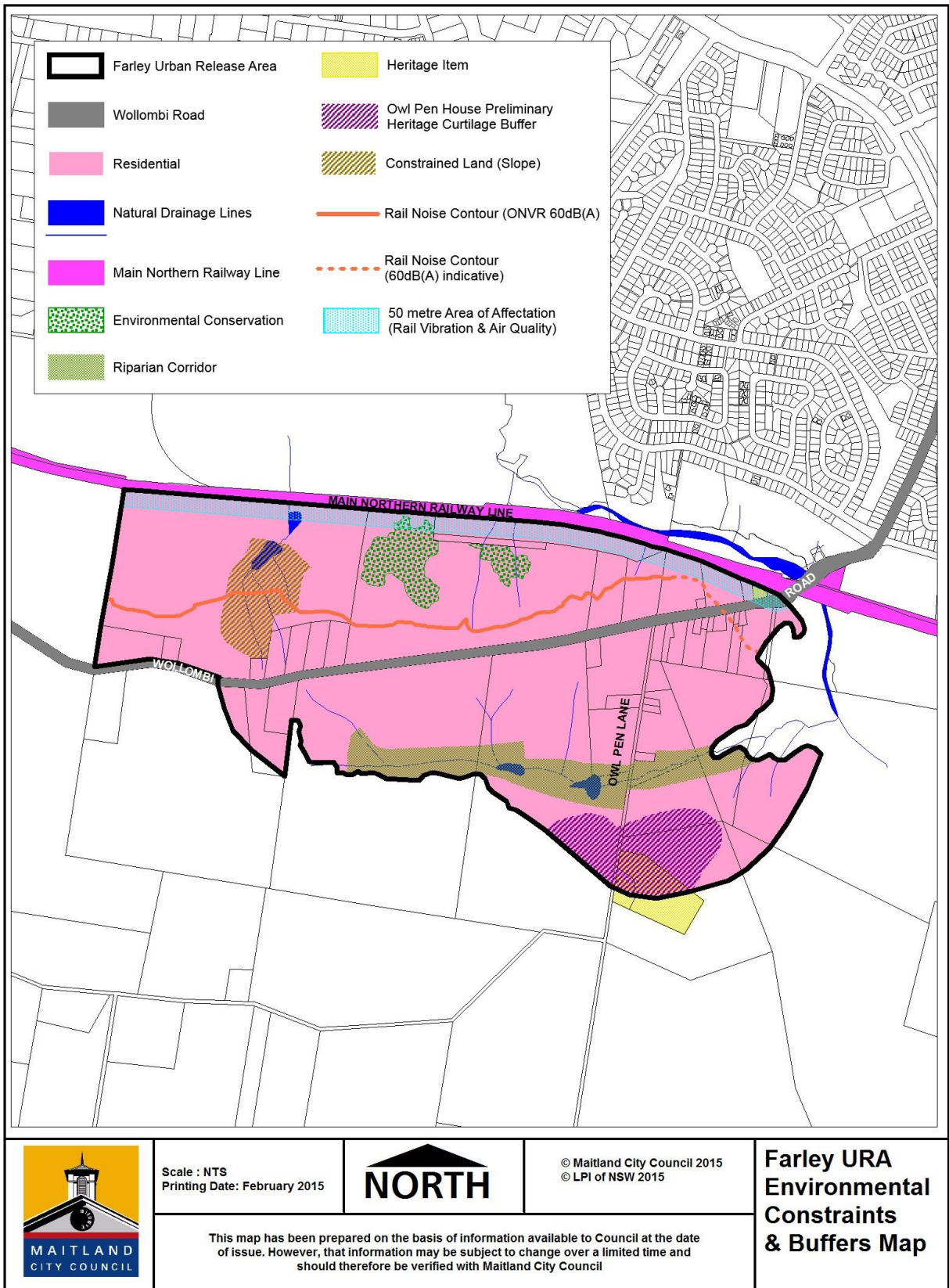


Figure 82: Farley URA Environmental Constraints and Buffers.



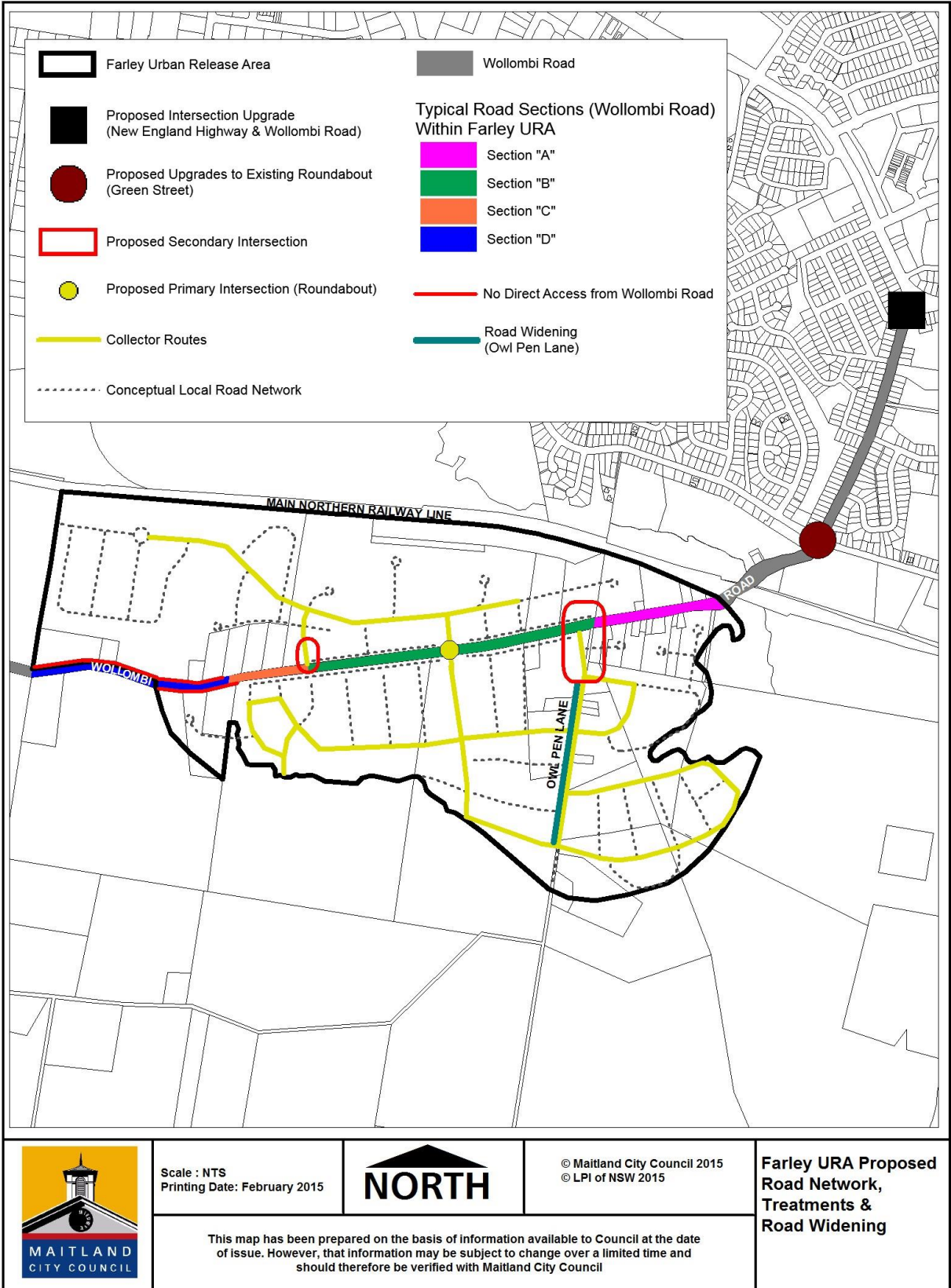


Figure 83: Farley URA Proposed Road Network, Treatments and Road Widening.



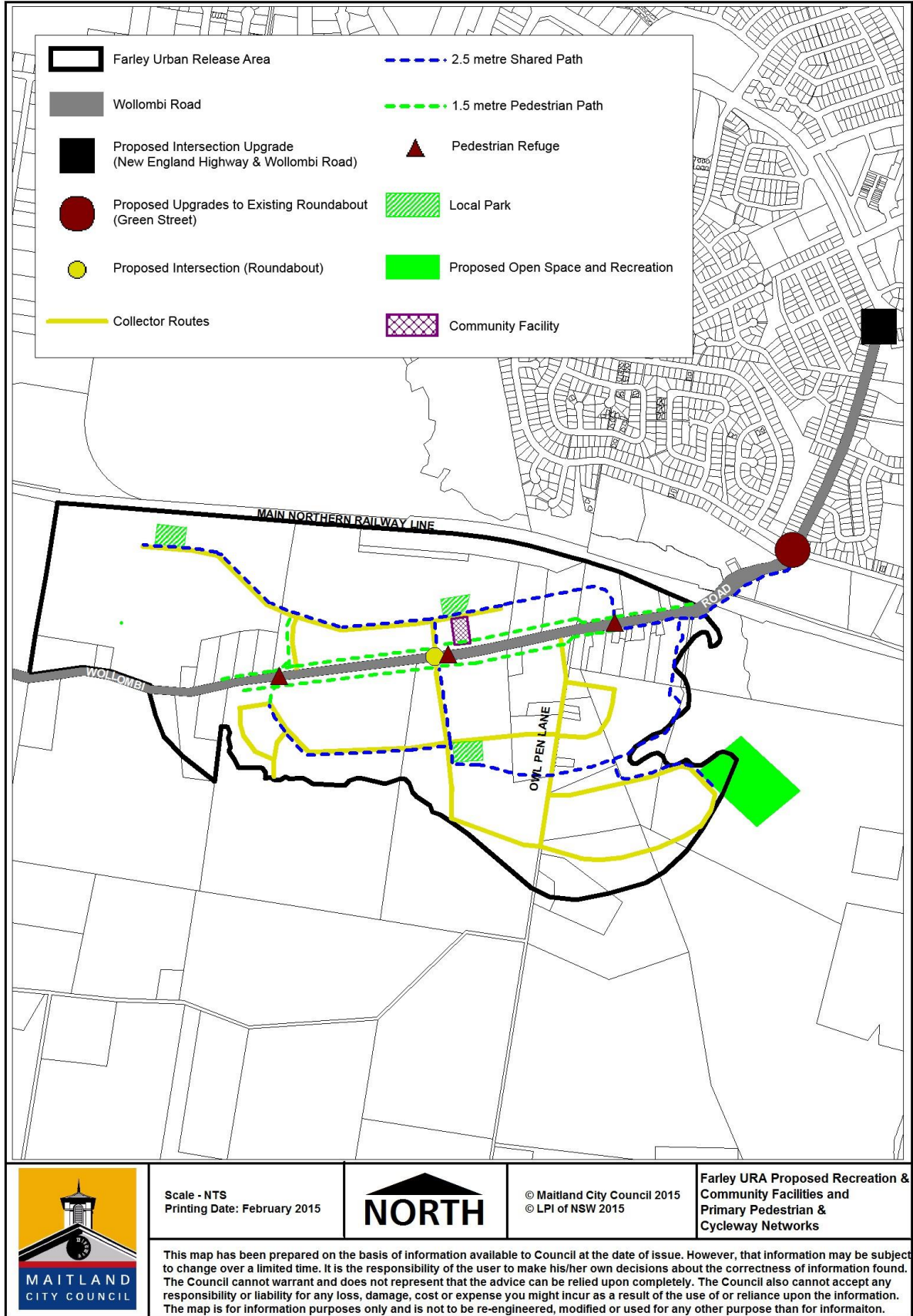
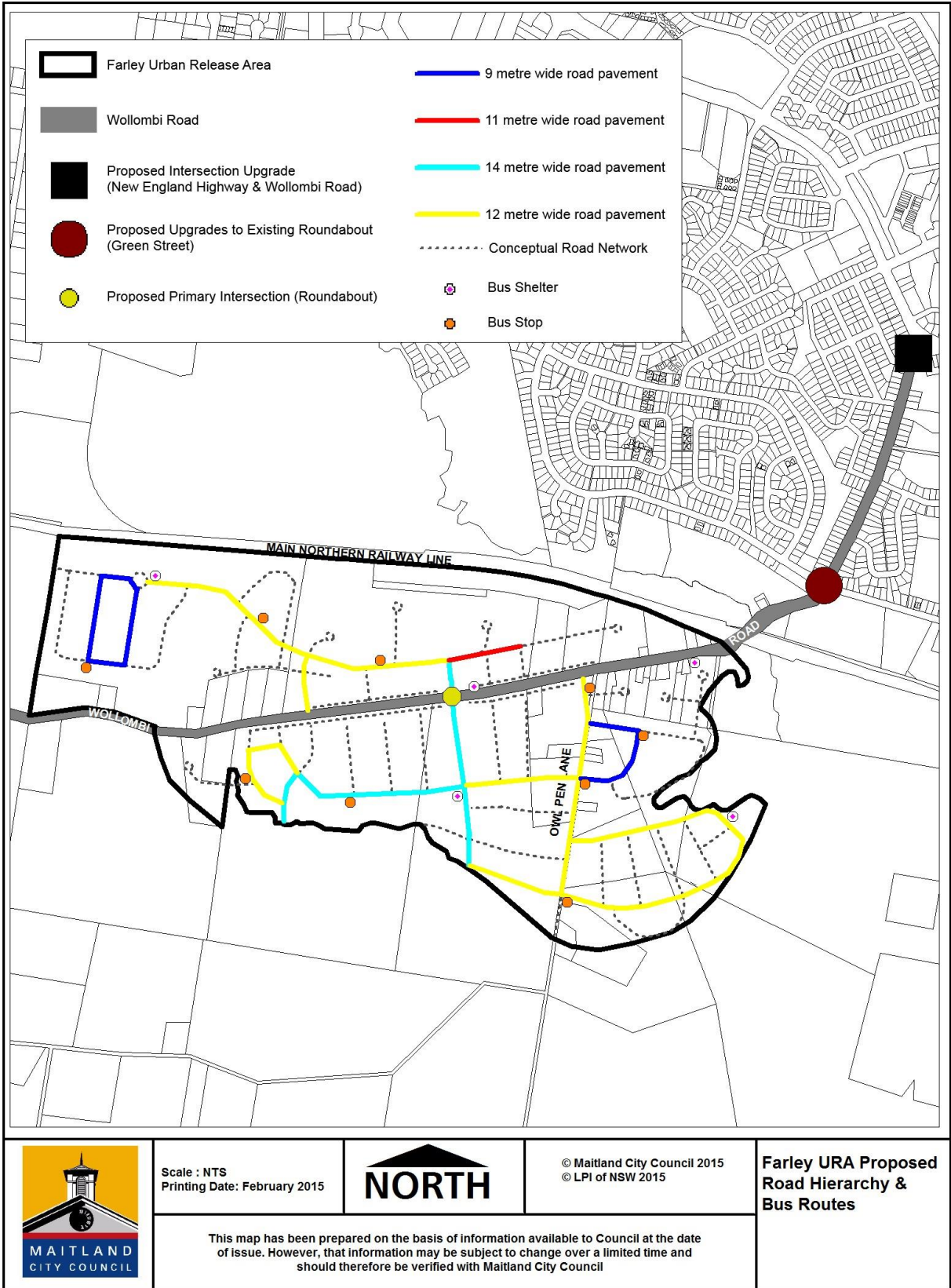


Figure 84: Farley URA Proposed Recreation and Community Facilities and Primary Pedestrian and Cycleway Networks.



Scale : NTS  
 Printing Date: February 2015



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**Farley URA Proposed  
 Road Hierarchy &  
 Bus Routes**

This map has been prepared on the basis of information available to Council at the date of issue. However, that information may be subject to change over a limited time and should therefore be verified with Maitland City Council

Figure 85: Farley URA Road Hierarchy and Bus Routes.



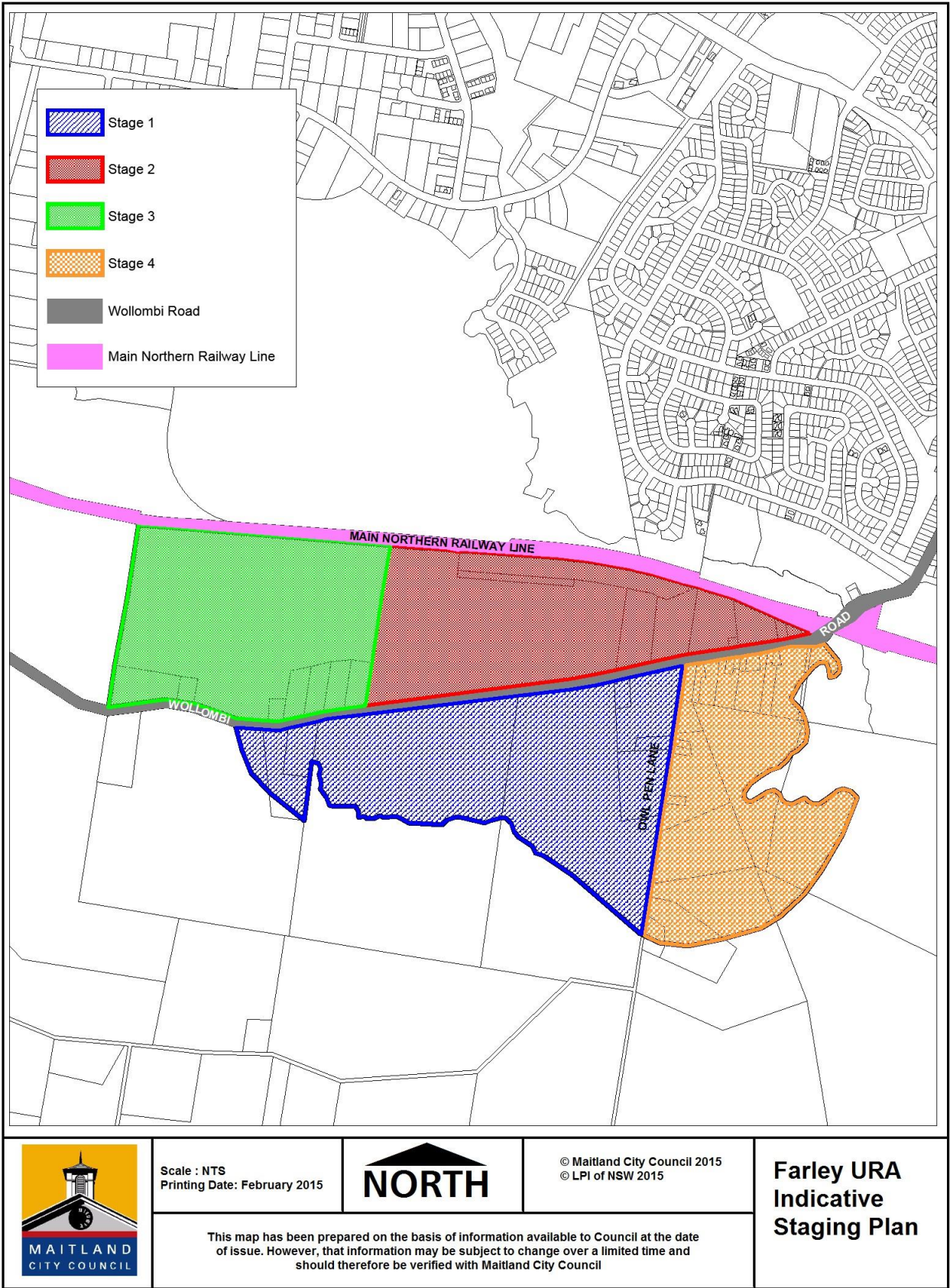


Figure 86: Farley URA Indicative Staging Plan.

# 1. Development Requirements

## 1.1 Staging Plan

### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.
2. To provide for the logical development of the URA based on the cost effective provision and availability of infrastructure and servicing arrangements.

### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 86.
2. The Farley URA Staging Plan is to be read in conjunction with the relevant Section 94 Contributions Plan applying to land within the Farley URA.
3. Development Applications will require evidence of satisfactory arrangements for essential services, including water and wastewater servicing. The release of allotments will be dependent on the satisfactory provision of reticulated water and wastewater services.
4. Development Applications shall incorporate road networks, stormwater detention areas, active and passive recreation areas, consistent with the overall staging and intended development outcomes for the Farley URA.
5. The subdivision staging shall consider the timely connection of the road network to adjoining properties and/or stages generally before completion of 75% of the developable lot area.
6. Where it can be demonstrated that only a minor upgrade is required to existing water and wastewater infrastructure in order to enable any proposed urban development within the Farley URA to be serviced, Council shall require evidence of satisfactory arrangements from Hunter Water Corporation to support any Development Application for that land. In such circumstances, adherence to the Farley URA Staging Plan will be unnecessary.
7. Where any proposal is made to amend the proposed Farley URA Staging Plan for reasons relating to infrastructure upgrades that may increase capacities within each stage of the Farley URA, any such proposal would need to be informed by variations to the water and wastewater servicing strategies prepared by GCA Pty Ltd in May 2014, and shall be endorsed by Hunter Water Corporation.
8. Development Applications shall incorporate road networks (based on Figure 4), stormwater detention areas, active and passive recreation areas and evidence of satisfactory arrangements for essential services.
9. Provision of community facilities and open space areas will be in accordance with the relevant Section 94 Contributions Plan applying to the Farley URA.
10. Development Applications shall consider the proximity of the nominated community facilities and recreation areas identified in this subject DCP chapter and the relevant Section 94 Contributions Plan applying to the site when designing subdivision layouts and movement linkages to adjoining sites.



11. Land is to be developed in walkable distances of up to 400m to a bus route, pedestrian network and local park, to promote sustainable communities.

## 1.2 Transport and Movement

### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

### Development controls

1. Development applications shall incorporate a transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. The transport movement hierarchy shall be generally in accordance with Figure 85.
3. The intersection of the New England Highway and Wollombi Road, in its current configuration, does not have adequate capacity to accommodate traffic movements associated with the full development of the Farley URA. The Council shall not grant development consent to a development application for urban residential subdivision within the URA until such time as NSW Roads and Maritime Services (RMS) has provided its comments/requirements concerning development thresholds and necessary intersection upgrading works at the New England Highway and Council is satisfied with the effect of the proposed traffic management on its existing local road network and existing adjoining developments.
4. The overall pedestrian and cycleway links including pedestrian refuges on Wollombi Road should be consistent with Figure 84.
5. On-road cycleways addressing finer grain network design shall be provided generally in accordance with the Council's Manual of Engineering Standards.
6. Staging of intersection construction may be considered by the Council having regard to the number of allotments being serviced, the location of the intersection, practicality of staging construction, the provisions of any applicable Section 94 Plan, and any requirements of the RMS where relevant.
7. Roads having frontage to and servicing the proposed neighbourhood centre, community facility and local park on the northern side of Wollombi Road shall comprise a pavement width capable of accommodating turning movements (dedicated right-in and left-in turning lanes) at the required access locations.

8. Perimeter roads should be incorporated, as far as is practicable, adjacent to open space and recreation areas, flood prone areas, and areas of bushfire risk and visual significance.
9. A key road network design principle for the URA is the control of access to Wollombi Road. Parallel subdivision service roads will ensure that direct access from individual lots to a significant section of Wollombi Road does not occur. Figure 83 details the required treatments for the nominated sections of Wollombi Road as follows:
  - **Section A (railway underpass to Owl Pen Lane)**

Existing road width and pavement is generally satisfactory with some minor shoulder widening/improvements required on the northern side along with kerb and guttering. Direct access to Wollombi Road permitted from fronting lots.
  - **Section B (Owl Pen Lane to proposed western intersection)**

Service roads running adjacent and parallel to Wollombi Road will provide access to individual allotments. Direct access from lots to Wollombi Road will not be permitted. The centerline of the existing road pavement may be adopted as the centerline for new works subject to the landowners being aware of and accepting the road widening and potential service relocation implications for the northern side of the road. The ultimate pavement alignment for Wollombi Road will be detailed within the relevant Section 94 Plan applying to the URA.
  - **Section C (proposed western intersection to ‘the bends’)**

Parallel service road treatment will be required on the southern side of Wollombi Road only as for Section B.
  - **Section D (‘The Bends’)**

Maintain consistent road pavement configuration (excluding service roads) as for Sections B and C along with table drain treatment. No new subdivision access permitted.
10. Three intersections are to be provided on Wollombi Road generally in the locations shown on Figure 83.
  - **Wollombi Road / Owl Pen Lane (secondary intersection – southern catchment)**

Realignment of Owl Pen Lane will be required to accommodate this intersection. The intersection will likely be in a ‘T’ configuration and initially be required to accommodate all movements. Council may however choose to restrict certain movements in the future depending on traffic volumes and intersection performance.
  - **Primary Intersection on Wollombi Road servicing both northern and southern catchments**

This intersection will be in the form of a single lane circulating roundabout.

- **Wollombi Road / proposed western intersection (secondary intersection – northern catchment)**

This intersection will likely be in a 'T' configuration and initially be required to accommodate all movements. Council may however choose to restrict certain movements in the future depending on traffic volumes and intersection performance.

11. Road widening will be required on Owl Pen Lane - this widening will occur predominantly on the western side of the road at the intersection to minimise impact on existing dwellings, then generally equally along the rest of the road. While the road will generally need to be upgraded to meet Council's Manual of Engineering Standards for a 12-metre pavement, some 'squeeze' points may necessitate a narrower footway and/or pavement. These squeeze points occur where existing dwellings are located close to the road and potentially where the road crosses the watercourse/gully. Subdivision design shall ensure that new allotments have direct frontage and access to Owl Pen Lane. Some localised widenings (beyond the widening necessary to achieve the various road sections illustrated in Figure 87, Figure 88, Figure 89 and Figure 90) may be required on Wollombi Road to accommodate intersections, pedestrian refuges and bus stops.
12. Development Applications shall consider the proximity of the nominated community facilities and recreation areas identified in the subject Area Plan and the relevant Section 94 Contributions Plan applying to the Farley URA when designing subdivision layouts and movement linkages between adjoining sites.
13. Bus routes for both local and school bus services are shown on Figure 85 along with locations for both bus stops and bus shelters. These bus stop/shelter locations have been based on achieving a walkable neighbourhood where walking distances to stops are in the order of 400 metres. Bus shelters are to be placed generally at the locations shown and hard stand pads are to be placed at other stops with seating as directed. Development applications shall ensure that subdivision design is general consistent with Figure 85.
14. Development Applications shall incorporate road networks that support the overarching requirements of Council as identified within this DCP as well as the Council's adopted Manual of Engineering Standards and the NSW Roads and Maritime Service (RMS).
15. Traffic management facilities for the Farley URA are to be provided in accordance with Figure 83 and any relevant Section 94 Contributions Plan that applies to the land.
16. Development Applications are to be supported by appropriate Traffic Impact Assessments (as required by the RMS), in order to ensure that capacity exists at the New England Highway intersection with Wollombi Road and on the local road network to accommodate the anticipated overall development yield for the land to which each Development Application applies.

### 1.3 Overall Landscaping Strategy

#### Objectives

1. To soften the visual impact of all built elements, creating attractive and consistent streetscapes when viewed by passing traffic and pedestrians.
2. To ensure key environmental areas such as waterways, vegetation, land resources, and areas of cultural significance and scenic value are protected.
3. To provide landscaping appropriate to the nature and scale of development that enhances the local character and streetscape, supports retention and regeneration of ecological corridors and provides visual interest and a suitable backdrop to the built form.

#### Development controls

1. Each Development Application is to include an overall landscaping strategy for the protection and enhancement of riparian areas and remnant vegetation, visually prominent locations, noise sensitive areas, and detailed landscaping requirements for the public and private realm.
2. A series of residential neighbourhoods are to be designed throughout the Farley URA to create a sense of identity, through distinct landscape and built form elements.
3. The overall landscaping strategy shall be based on the visual management principles identified in the visual impact assessment prepared by ADW Johnson (which informed the rezoning of the Farley URA).
4. Landscaping will be required:
  - along Wollombi Road in accordance with Road Sections B and C at Appendix A;
  - on land adjacent to major intersections
  - on all collector roads to soften the visual impact of all built elements and create attractive streetscapes when viewed by passing traffic and pedestrians.
5. The overall landscaping strategy shall provide for revegetation opportunities within the existing riparian areas and the identification and reconnection of corridors identified in the Maitland Greening Plan 2002.
6. The overall landscaping strategy shall provide extensive tree planting to the edge of existing riparian areas, with visual breaks where streets terminate in views to the riparian areas.
7. The overall landscaping strategy shall include provisions to protect the scenic values and heritage significance of any listed heritage items, including Owl Pen House.
8. Subdivision and housing design is to take advantage of significant and attractive views overlooking the surrounding rural lands by orienting streets and locating publicspace to capture views.

### 1.4 Passive and Active Recreation Areas

#### Objectives



1. Neighbourhoods are conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
2. To provide a safe and appropriate level of pedestrian and cycleway access linking new development with established urban areas, parks and public transport, including a mix of on-road and off-road cycle routes.

#### Development controls

1. Subdivision of land and the network of passive and active recreational areas should be consistent with that identified in Figure 84.
2. Neighbourhoods must include conveniently located open space areas that offer a range of recreational opportunities for residents, accessible within walking distance from each residence.
3. The range of recreational and community facilities to be provided on land identified within the URA will be as determined through an adopted Section 94 Plan for the URA.
4. The amount of land to be provided for the neighbourhood sportsground shall be either:
  - 6ha to accommodate two playing fields with a monetary contribution for a third
  - field at Council's future Anambah Sportsground made under a Section 94 Plan, or
  - 8ha to accommodate three fields Stormwater and water quality management

### **1.5 Stormwater and Water Quality Management**

#### Objectives

1. To provide for an integrated and sustainable approach to the design and provision of open space and urban water management.
2. To protect and enhance the water quality, water quantity and habitat value of downstream waterways and environment.
3. To prevent erosion and run-off during site preparation, construction and the ongoing use of the land to minimise cumulative impact on receiving waterways.

#### Development controls

1. Each Development Application is to include stormwater and water quality management controls, having particular regard to the proximity of the nearby regionally significant Wentworth Swamp to the South of the Farley URA.
2. The stormwater and water quality management controls shall be consistent with the principles of Water Sensitive Urban Design (WSUD).
3. The number and location of WSUD elements should be determined by modeling to develop the WSUD strategy for the site, and be integrated with the overall design.

4. Parking areas can be located adjacent to WSUD elements where they are designed to prevent damage by vehicles.
5. Water quality and detention facilities shall be located to ensure the operational function of the facilities are not impacted by environmental constraints.
6. Parking areas may be interspersed between WSUD elements.
7. Long-term maintenance costs are to be identified in the design of the WSUD elements and are to be submitted to Council for consideration prior to acceptance of the WSUD strategy.
8. Riparian corridors shall be maintained around identified watercourses, in accordance with Citywide DCP Chapter B7 - Riparian Land and Waterways, and relevant NSW Office of Water guidelines pertaining to minimum buffer widths.
9. Swales may be appropriate, however, any such stormwater design shall be considered in association with stormwater studies prepared for Development Applications.
10. Swales may be acceptable on grades under 4% where it can be demonstrated that they will meet Council's performance and maintenance objectives and facilitate safe and effective movement of pedestrians and vehicles.
11. No change to the minimum width of roads on account of WSUD is permissible.
12. Flow control measures shall be used where grades in swales exceed 4%.
13. Where practical, WSUD elements may be incorporated in a centre depressed median of dual carriage roads.
14. Wetlands should be well-designed creating an attractive and safe amenity, and be highly visible for both the adjoining residents and passers-by.
15. Walking paths should have frequent contact adjacent to the wetland edge.
16. Vegetation should be designed such that generous unobstructed view of the wetland is available.
17. Emergent macrophytes should be minimal and manageable.
18. Slopes surrounding wetlands should be gentle and offer convenient tractor-mowing access.
19. Flat grassed areas that potentially may be water-logged should be avoided.
20. Existing natural gullies should be retained where possible and if necessary enhanced to offset the need for maintenance.
21. In general, grassed areas must be kept to a minimum for maintenance purposes, and wetland and gullies should offer a sense of ownership to the public.

## **1.6 Amelioration of Natural and Environmental Hazards**

### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. To ensure that future residential development is not adversely affected by any noise and vibration from incompatible land uses, including road and rail corridors.

## Development controls

1. Future subdivision design is to incorporate the areas of native vegetation into the character and design of the development, and provide for links between areas of remnant vegetation creating improved habitat value and filter strips along watercourses.
2. Development Applications are to include a detailed assessment of the flora and fauna characteristics of the site prepared by a suitably qualified ecologist. Such an assessment shall include identification and retention of hollow bearing trees and mature trees (as far as is practicable) and shall address appropriate mitigation strategies where impacts on flora and/or fauna communities are identified.
3. Riparian buffers shall be maintained around identified watercourses, in accordance with relevant NSW Office of Water guidelines pertaining to minimum buffer widths.
4. Future development and landscaping is to recognise the cultural plantings located at Owl Pen House and where necessary, shall be designed to complement rather than compete with established features.
5. Development Applications shall include subdivision designs that consider the bushfire risk in the locality, in accordance with the NSW Rural Fire Service guidelines current at that time. Submission of a bushfire risk assessment will be a minimum requirement for any Development Application involving bushfire prone land within the Farley URA.
6. Subdivision design shall ensure that Asset Protection Zones (APZs) are contained wholly within the boundaries of residential allotments (and perimeter roads where considered safe and practical), and do not extent into vegetated areas where clearing would be required.
7. Development Applications will need to investigate soil salinity levels, soil structure/stability and Acid Sulfate Soils as part of geotechnical investigations associated with the site.
8. Phase 1 site contamination studies are required for each Development Application, with Phase 2 site contamination studies required where deemed necessary through the Phase 1 process. Any Phase 1 or Phase 2 site contamination studies should have regard to the site contamination assessment completed by Douglas Partners Pty Ltd submitted with the rezoning proposal for the Farley URA.
9. Development Applications shall be supported by a stormwater study for the relevant land, which shall illustrate the connectivity to stormwater catchments within the wider Farley URA and locality. Stormwater detention areas shall be located in accordance with the stormwater study that supports each Development Application.
10. Particular consideration needs to be given, in the development of Stages 2 and 3, to the receiving catchment to the north of rail line given the broader catchment issues in this area.
11. The Eastern boundary of the Farley URA generally reflects the extent of land inundated during the 1:100 ARI flood event. Areas in the Eastern extent of the site that are inundated during the 1:100 ARI flood event are not to be further developed for residential purposes. Development within this locality shall

- consider the potential flood hazard and flood behavior adjoining this part of the Farley URA.
12. Impacts from localised flooding are to be considered as part of Development Applications for the Farley URA, including any alternative access arrangements to lower lying areas of the Farley URA during times of storm events and localised flooding.
  13. Development Applications shall demonstrate that post-development stormwater flows do not exceed pre-development stormwater flows for events up to and including the 1 in 100 year flood.
  14. Rail noise is expected to impact the URA and in particular that part of the release area to the north of Wollombi Road.
  15. Future residential buildings will be required to achieve the following mandatory internal noise goals (measured in LAeq) contained within Clause 87 of State Environmental Planning Policy (Infrastructure) 2007:
    - in any bedroom in the building—35 dB(A) at any time between 10.00 pm and 7.00 am
    - anywhere else in the building (other than a garage, kitchen, bathroom or hallway)— 40 dB(A) at any time.
  16. Council will require subdivision development on the northern side of Wollombi Road to achieve an external amenity goal of 80LAmax as recommended by ARTC when larger scale new residential release areas are proposed near a rail corridor.
  17. The Farley URA Constraints and Buffers Map (Figure 82) shows the extent of the 60 dB(A) Leq 9hr (night-time 2022) noise contour as extracted from the Australian Rail and Track Corporation “*Maitland to Minimbah Third Track Operational Noise and Vibration Review (Public)*” dated June 2013. The purpose of including this noise contour in the DCP is to give a potential developer a spatial appreciation of where specialised acoustic controls are likely to be required in the development of the URA. For land to the south of the 60dB(A) contour (further away from the rail corridor) conventional residential construction will most likely enable the internal noise goals of the SEPP to be achieved. For land to the north of the 60dB(A) contour (closer to the rail corridor) specialised acoustic treatments are likely to be needed in the form of improved noise attenuation treatments to individual residences or mitigation in the form of noise barriers adjacent the rail corridor – or perhaps a combination of these.

While rail vibration must be properly assessed as part of the development application process the “*Maitland to Minimbah Third Track Operational Noise and Vibration Review (Public)*” suggests that vibration impacts are not likely to be significant outside the range of 40-50m from the nearest rail line.

The eastern end of the 60dB(A) contour is shown as an indicative contour only given the termination point of the survey and modelling undertaken under the “*Maitland to Minimbah Third Track Operational Noise and Vibration Review (Public)*”.



Appropriate subdivision design and lot layout together with mitigation works (where necessary) can help reduce the impacts of rail noise and vibration on residential buildings and outdoor private spaces.

Independent acoustic and vibration reports prepared in accordance with the NSW Department of Planning “Development Near Rail Corridors and Busy Roads – Interim Guideline (2008)” shall be submitted with Development Applications for all land to the north of Wollombi Road and to the north of the 60dB(A) indicative rail noise contour to identify potential impacts and mitigating measures associated with development located in proximity to the Main Northern Railway Line.

18. Given the potential impacts from coal dust and pollution/emissions from rail movements development applications proposing residential lots and/or buildings within 50m\*<sup>4</sup> of the Main Northern Railway Line shall include a detailed air quality assessment carried out by a suitably qualified consultant. The air quality assessment zone is shown in [Figure 82](#).
19. Visual impact mitigation measures identified in the Visual Impact Assessment prepared by ADW Johnson (which informed the rezoning of the Farley URA) shall be incorporated into subdivision layout and design. These measures include:
  - Consideration shall be given to Owl Pen House, the Government railway (Station Master’s House), and the associated heritage curtilage required in these locations.
  - Vegetation in the elevated areas of the URA should be retained.
  - Native local species shall be used for landscaping.
  - Streetscape planting along Wollombi Road to mitigate visual impact and provide a vegetated skyline for views from below the Wollombi Road ridgeline.
  - Subdivision design should facilitate North and East outlooks.
20. Development shall incorporate appropriate measures to prevent and control the impacts of erosion and sedimentation that may occur as a result of earthworks, localised development, subdivision works or the like within the Farley URA. The relevant chapters of the Maitland Citywide DCP shall be considered in this regard.

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<sup>4</sup> The ARTC’s “Maitland to Minimbah Third Track Environmental Assessment” dated May 2010 identifies the residential areas of Telarah, Rutherford, Farley, Greta and Branxton as sensitive receptors in relation to air quality. While air quality modelling results indicate that predicted operational air quality impacts (diesel and coal dust emissions) should be within relevant EPA air quality goals, a reasonable and conservative planning approach is to require site specific modelling of ‘actual’ emission levels close to the rail corridor over time as the development of the URA progresses.

## 1.7 Aboriginal Heritage

### Objectives

1. Heritage items, buildings with heritage significance and conservation areas are protected.

### Development controls

1. Development Applications shall be supported by appropriate Aboriginal Heritage Impact Studies to determine the presence and locations of any Aboriginal artefacts or sites of significance, including methods for providing any necessary buffers within the site. Reference should also be made to the Indigenous Archaeological Due Diligence Assessment completed by McCardle Cultural Heritage Pty Ltd, which informed the rezoning of the Farley URA.
2. Development Applications shall be referred to NSW Office of Environment and Heritage, Mindaribba LALC and Lower Hunter Wonnarua LALC for comment as part of the public and government agency exhibition process for assessing Development Applications.

## 1.8 European Heritage

### Objectives

1. Heritage items, buildings with heritage significance and conservation areas are protected.

### Development controls

1. Development Applications shall be prepared having consideration for items identified in the European Heritage study prepared by Nexus Archaeology and Heritage for the rezoning of the Farley URA. Identified items include:
  - Owl Pen House; and
  - Government railway (Station Master's House)
2. A European Heritage study shall incorporate an assessment of the appropriate heritage curtilage for Owl Pen House where it is proposed to subdivide land within the Preliminary Heritage Curtilage Buffer shown on Figure 82. The study shall consider options for reducing the impact of new development within and/or adjacent to the identified curtilage.
3. European Heritage studies shall also include recommendations for the recognition and protection of any other significant items that might be exposed as a result of further investigating, planning or construction processes.

## 1.9 Key Development Sites

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Development Applications are to include detailed urban design controls for significant development sites.
2. Development Applications are to include detailed urban design controls (including traffic management requirements and carparking designs, where appropriate) for the following Key Development Sites:
  - Owl Pen House
  - Government Railway (Station Master's House)
  - Development adjoining the Main Northern Railway Line
  - Future neighbourhood centre

### *Adjoining land zoned for environmental protection*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Land zoned E3 must be amalgamated with an adjoining area of at least 450m<sup>2</sup> of R1 Residential zoned land and contained in a single lot. (*The Maitland Local Environmental Plan 2011 requires a minimum lot size of 40 hectares for the E3 zone*).
2. Any development or works within, or adjacent to the land zoned E3 Environmental Management are to ensure clearing of vegetation is minimised to the satisfaction of Council.
3. Mechanisms are to be put in place with development to ensure the integrity and protection of established vegetation and riparian areas zoned E3 Environmental Management. Details of how vegetation and riparian areas are proposed to be managed are to be included in all Development Applications affecting the E3 Environmental Management zone.
4. Development within the R1 General Residential zone must be designed and planned to ensure any Asset Protection Zones (APZs) or buffers are contained wholly within that zone, and do not extend into the E3 Environmental Management zone.

### *Land fronting Wollombi Road*

### Objectives

1. Detailed urban design controls are provided for significant development sites.

### Development controls

1. Development adjacent to Wollombi Road should be appropriately designed so as to provide a high quality architectural appearance with visual interest, particularly by discouraging bulky buildings and blank walls.
2. Vehicular access to Wollombi Road will be controlled via the road design (Sections A to D) contained in Figures 87, 88, 89 and 90 and Appendix A.

#### **1.10 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

#### **1.11 Neighbourhood Commercial and Retail Uses**

##### Objectives

1. To accommodate and control appropriate neighbourhood commercial and retail uses.
2. To foster a sense of community and strong local identity and sense of place in neighbourhoods.

##### Development controls

1. A separate future LEP amendment will be required for the future neighbourhood centre proposed for the Farley URA.
2. The subsequent Development Application(s) for that future neighbourhood centre will need to be undertaken in accordance with the Maitland Development Control Plan 2011: Centres development provisions.

#### **1.12 Provision of Public Facilities and Services**

##### Objectives

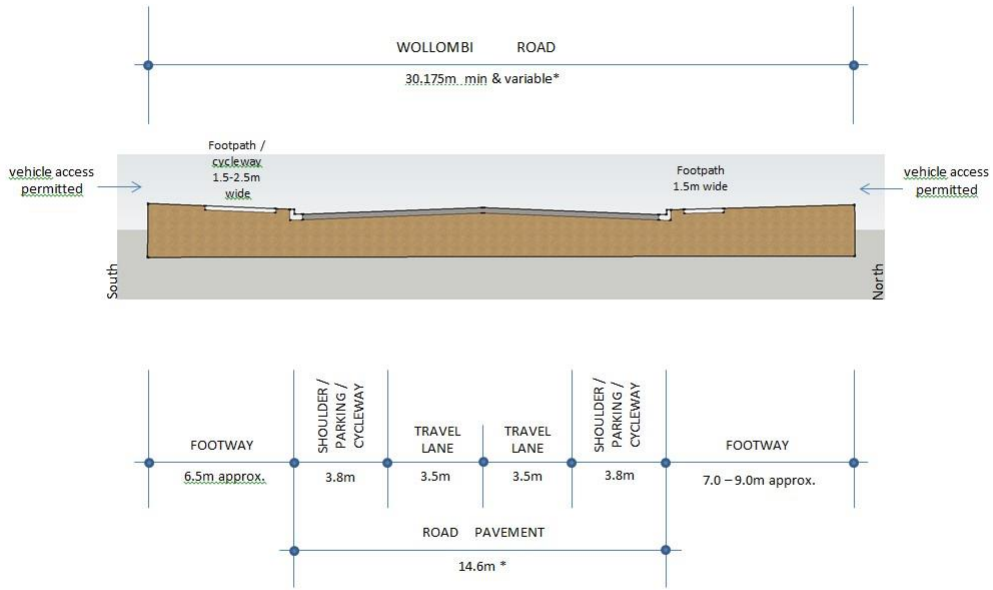
1. Suitably located public facilities and services are provided, including provision for appropriate traffic management facilities and parking.

##### Development controls

1. Each Development Application is to include suitably located public facilities and services, including provision for appropriate traffic management facilities and parking (see Key Development Sites above).
2. Public transport should be addressed in Development Applications, with consideration made for overall network connectivity and access to bus stops.



### Typical Road Section "A"

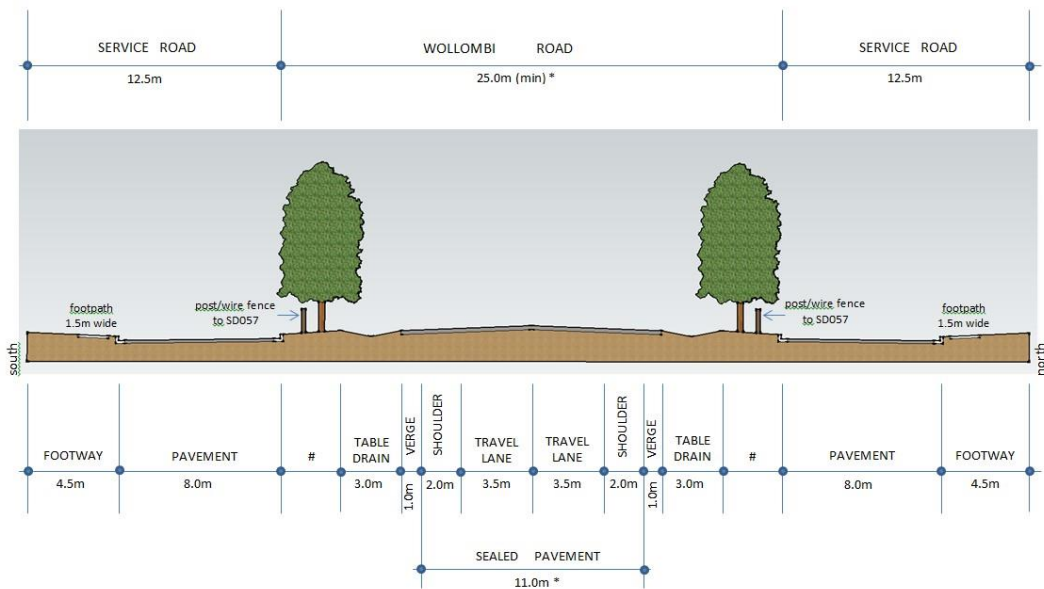


\*Note: Additional localised widenings will be required to accommodate intersections, bus stops/shelters and pedestrian refuges.

Not to Scale

Figure 87: Typical cross sections "A" Wollombi Road, Farley.

### Typical Road Section "B"



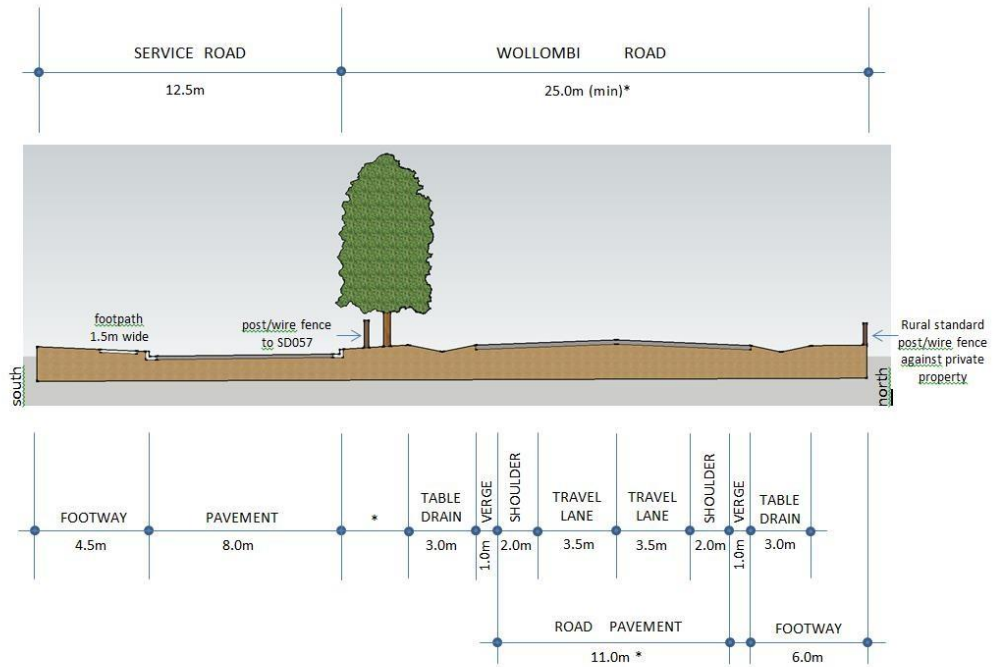
\* Note: Additional localised widenings will be required to accommodate intersections, bus stops/shelters and pedestrian refuges.

# Note: 3.0m minimum for services and landscaping. Additional width may be required in some locations to accommodate slope.

Not to Scale

Figure 88: Typical cross sections "B" Wollombi Road, Farley.

### Typical Road Section "C"

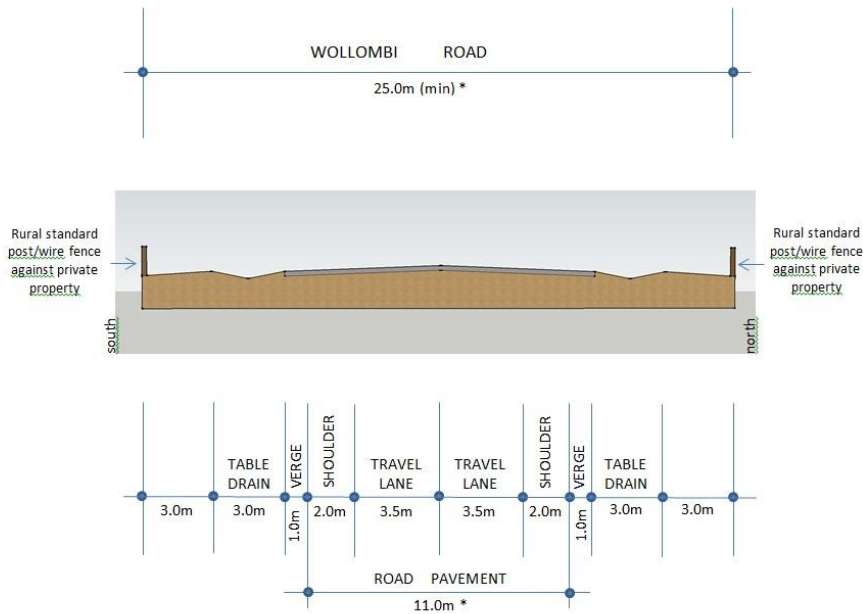


*\*Note: Additional localised widenings will be required to accommodate intersections, bus stops/shelters and pedestrian refuges.*

Not to Scale

Figure 89: Typical cross sections "C" Wollombi Road, Farley.

### Typical Road Section "D"



*\*Note: Additional localised widenings will be required to accommodate intersections, bus stops/shelters and pedestrian refuges.*

Not to Scale

Figure 90: Typical cross sections "D" Wollombi Road, Farley.

# F.12 - Anambah Urban Extension Site (Windella)

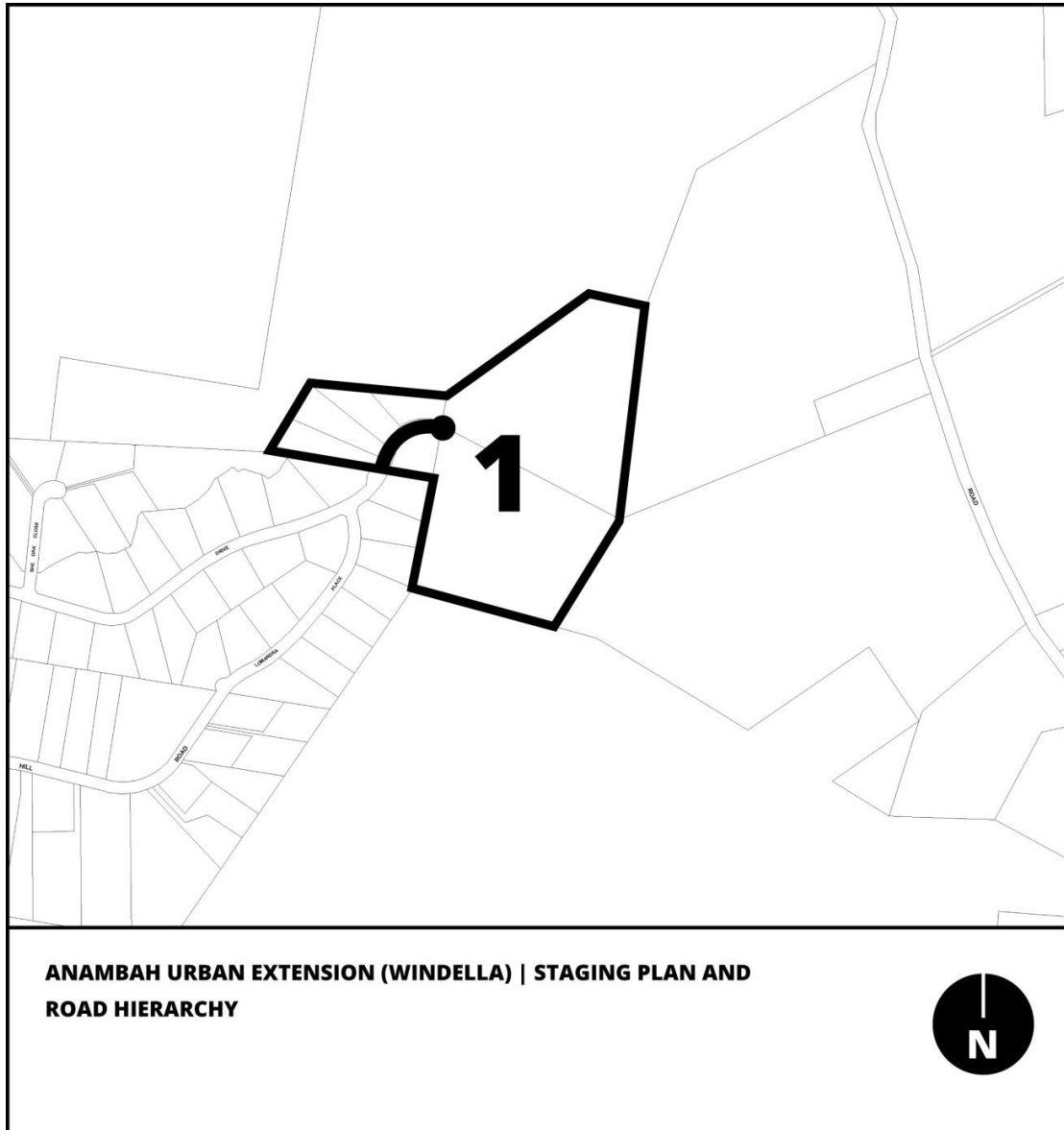


Figure 91: Anambah Urban Extension (Windella) Staging Plan and Road Hierarchy.

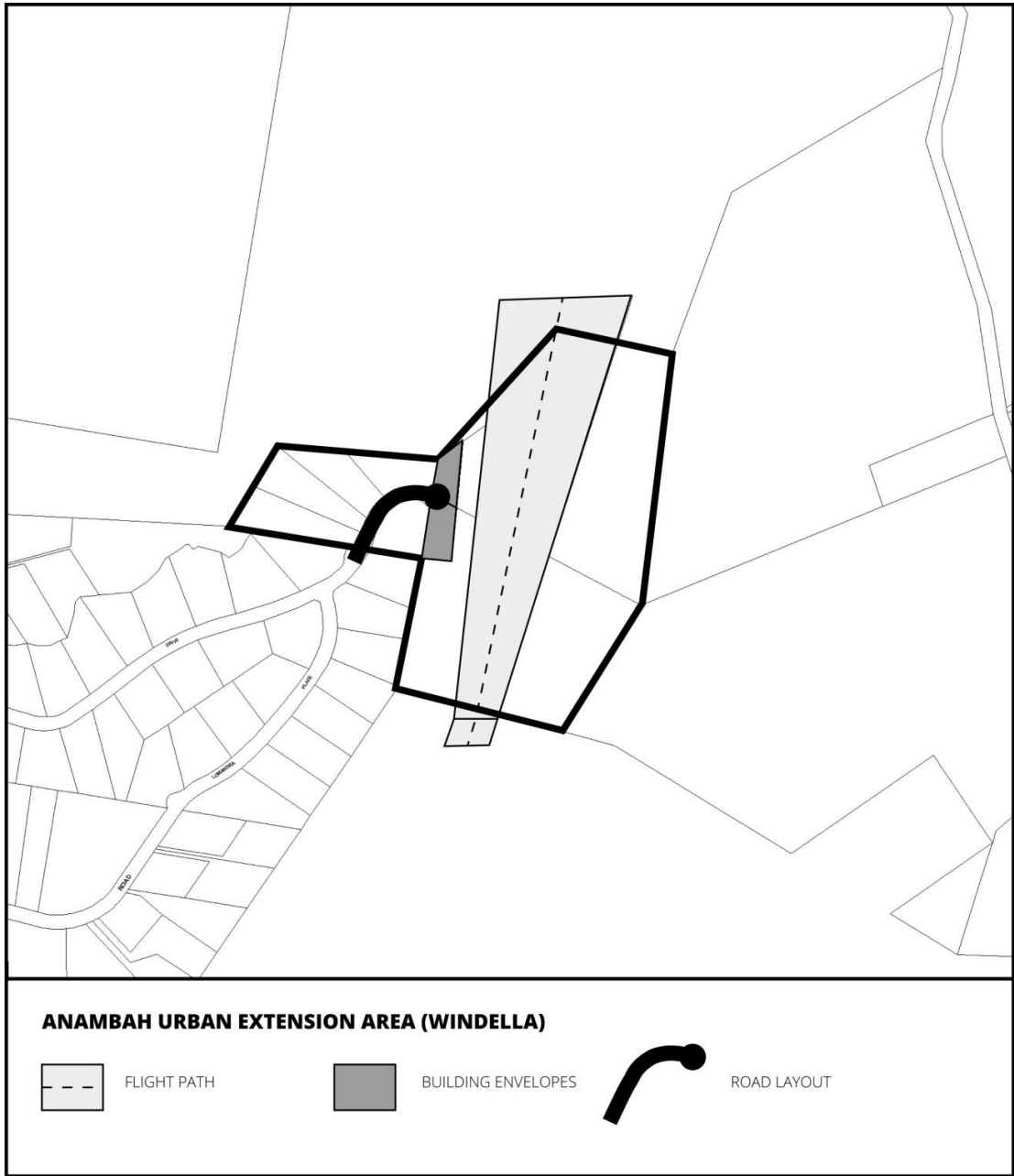


Figure 92: Building envelope restrictions for lots affected by aircraft noise.



## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 91.

### 1.2 Transport and Movement

#### Objectives

1. To achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists.
2. To provide walkable neighbourhoods with convenient access to neighbourhood shops, community facilities and other services, with less dependence on cars for travel
3. To provide for access generally by way of an interconnected network of streets and paths which facilitate safe, efficient and pleasant walking, cycling and driving.
4. To facilitate new development which supports the efficiency of public transport systems, and provides safe, direct access to the system for residents.

#### Development controls

1. A road network is to be provided generally in accordance with Figure 91.

### 1.3 Overall Landscaping Strategy

There are no specific requirements as landscaping controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

### 1.4 Passive and Active Recreation Areas

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.5 Stormwater and Water Quality Management**

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.6 Amelioration of Natural and Environmental Hazards**

### Objectives

1. To protect residential dwellings from aircraft noise associated with the Rutherford Aerodrome.
2. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.

### Development Controls

1. Building envelopes shall be provided generally in accordance with Figure 92.
2. There are no requirements for bushfire.
3. Land within the flood planning area shall address clause 7.3 of the Maitland Local Environmental Plan 2011.
4. All development applications shall demonstrate compliance with the requirements of SEPP 55 – Remediation of Land.

## **1.7 Key Development Sites**

There are no specific requirements as key development sites are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## F.13 - Glebe Paddock

### DESCRIPTION

The Glebe Paddock refers to the land at Wallis Street, East Maitland. It is bounded by Wallis Street to the north-east, the unformed extension of George Street to the south-east and Wallis Creek to the west.

The site is 16.76Ha in area. 4.35ha has been rezoned for general residential purposes. The residual area is zoned environmental conservation. It contains sites of Aboriginal cultural heritage, an endangered ecological community and hollow-bearing trees. The proposed curtilage to the State listed Glebe Cemetery is mostly contained within the environmental land. The area is also partially affected by flooding.

These following development controls were informed by several key investigations. These should be consulted when assessing a development application for the site.

1. "Glebe Gully Burial Ground, East Maitland" prepared by Richard Lamb and Associates dated November 2012.
2. "Aboriginal Cultural Heritage Assessment" prepared by Archaeological Risk Assessment Services dated December 2010.
3. "Flora, Fauna and Threatened Species Assessment" prepared by Ecobiological (undated).

### 1. Development Requirements

#### 1.1 Staging

##### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

##### Development controls

1. Staging of development shall generally occur in accordance with Figure 91.
2. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

#### 1.2 Transport and movement

There are no specific requirements as transport and movement is already controlled by other provisions in the Maitland Development Control Plan 2011.

### 1.3 Overall landscaping strategy

#### Objectives

1. Impacts of any action affecting threatened species, populations and ecologically endangered communities (EEC) is properly assessed and compensated.
2. Any loss of endangered ecological community (EEC) must be offset in accordance with the Office of Environment and Heritage EEC offset requirements and provided within the environmental land.
3. The habitat of those threatened species and populations that are dependent on hollow-bearing trees for their lifecycle is protected.
4. The VMP retains the area of prominent vegetation.
5. The risk to people and property from hollow-bearing trees is minimised.

#### Development controls

1. A revised flora and fauna assessment and vegetation management plan (VMP) must be prepared with any application to subdivide the site.
2. The assessment and VMP is to be prepared by an appropriately qualified person.
3. A hollow bearing trees (HBT) protocol must accompany any application to subdivide the site. The protocol must be informed by a comprehensive assessment prepared by a qualified ecologist and include;
  - A survey of all HBTs on the site;
  - Retention of HBTs where possible;
  - An assessment of the value of any HBT proposed to be removed based on;
    - a. Status of the tree (i.e. living or dead)
    - b. Diameter Bole Height (living trees only)
    - c. Number of visible hollows
    - d. Location of HBT in the landscape
    - e. Expected longevity of the hollow
  - A strategy for tree removal (timing and methodology) that minimises impacts on native wildlife.
  - A strategy to compensate for the loss of HBTs by;
    - a. identifying compensatory recruitment trees within the site
    - b. installing nesting boxes of similar number and size as those hollows to be removed
    - c. replacing any trees lost on the site.
4. Nesting boxes are;
  - to be installed like for like (both type and number, and host tree to genus level) and must be located within the environmental lands
  - to be installed and maintained within environmental lands in accordance with the VMP for period until recruitment trees are established
  - to be inspected and maintained by a qualified ecologist
  - All felled trees must be relocated to the environmental land to supplement existing terrestrial fauna habitat.



#### **1.4 Passive and active recreation areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.5 Stormwater and water quality management**

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.6 Amelioration of Natural and Environmental Hazards**

##### Objectives

1. Amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected is achieved.
2. The development responds to the geotechnical characteristics of the site.

##### Development controls

1. Any development application for subdivision must include a geotechnical assessment undertaken by a qualified geotechnical engineer that assesses the conditions of the site for building.
2. Where applicable, the geotechnical assessment must include building specifications to ensure residential development adequately responds to geotechnical conditions.

#### **1.7 Key Development Sites**

There are no specific requirements as key development sites are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lotsize in the Maitland Local Environmental Plan 2011.

#### **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

#### **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

### **1.11 European heritage**

#### Objectives

1. The interface between the residential area and the environmental area is sympathetic to the State heritage item.
2. Fencing is low-impact, rural-type fencing.
3. Unauthorised access to the environmental area is discouraged.
4. The subdivision design maintains the open nature of the curtilage of the Glebe Cemetery.

#### Development controls

1. For properties immediately adjoining the environmental zoned area, rear fences and side fences up to the rear building line of the main dwelling are to be constructed of post and wire or post and rail, transparent, "rural type" fencing.
2. Fencing must be provided along the interface between the environmental zoned area and the residential area.
3. Development must be in accordance with the Glebe Historic Cemetery Conservation Management Plan.
4. A 'restriction as to user' under Section 88B of the Conveyancing Act shall be created over lots within the curtilage of the Glebe Cemetery requiring that no dwelling be constructed within 15m of the rear boundary.

### **1.12 Aboriginal Heritage**

#### Objectives

1. The Aboriginal cultural heritage of the site is protected and maintained.
2. The Local Aboriginal Land Council is involved the future management of the Aboriginal cultural heritage on the site.

#### Development controls

1. An updated Aboriginal cultural heritage impact assessment (ACHIA) must be undertaken before consent is given to the subdivision.
2. Subdivision design must respond to the outcomes of ACHIA.
3. An Aboriginal cultural heritage management plan must be prepared for the environmental area.
4. The Aboriginal cultural heritage impact assessment must be undertaken in consultation with the Mindaribba Local Aboriginal Land Council and Traditional Owners.

- 5. The Aboriginal cultural heritage management plan must be prepared in consultation with the Mindaribba Local Aboriginal Land Council and Traditional Owners.

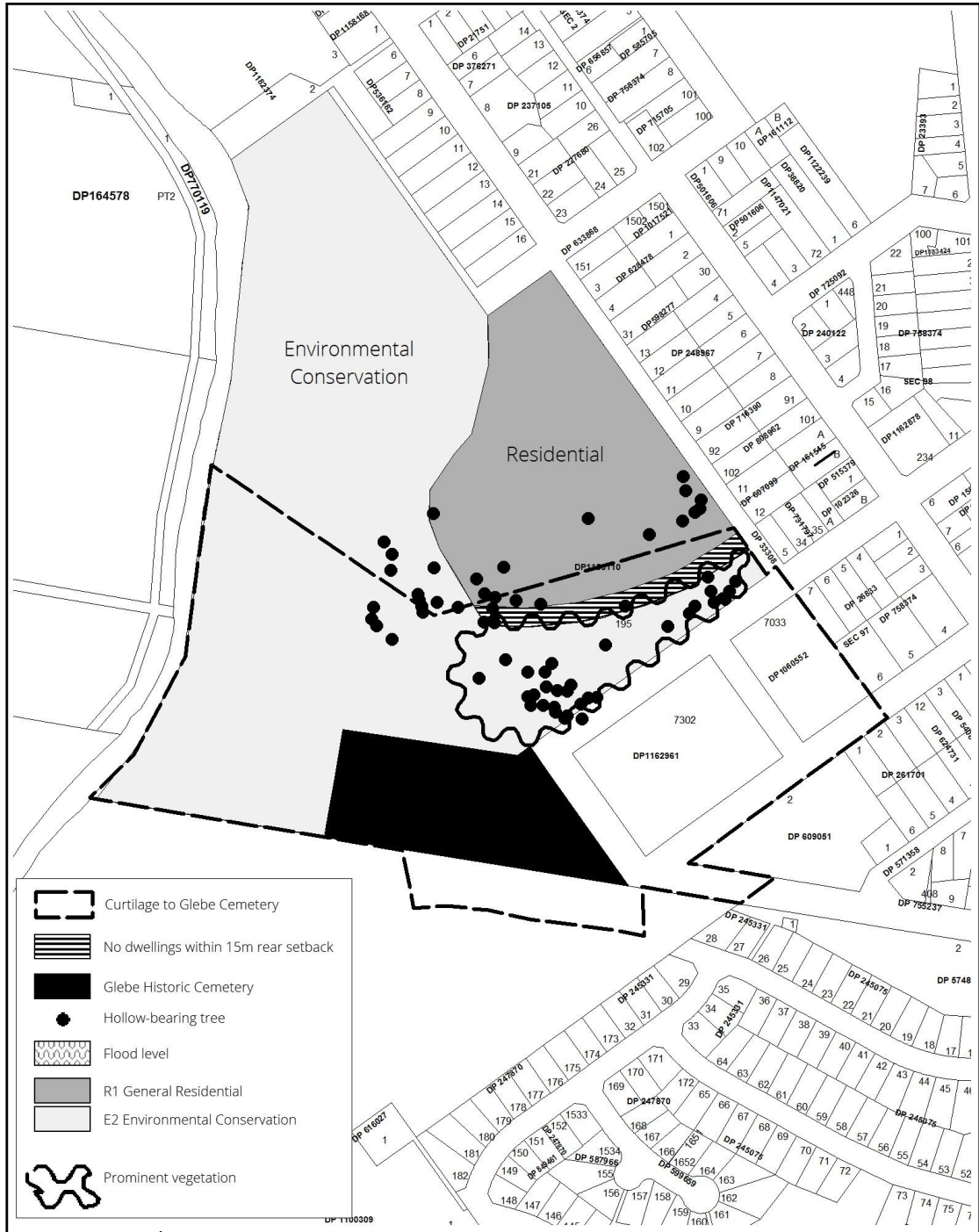


Figure 93: Glebe Paddock key constraints and development controls.

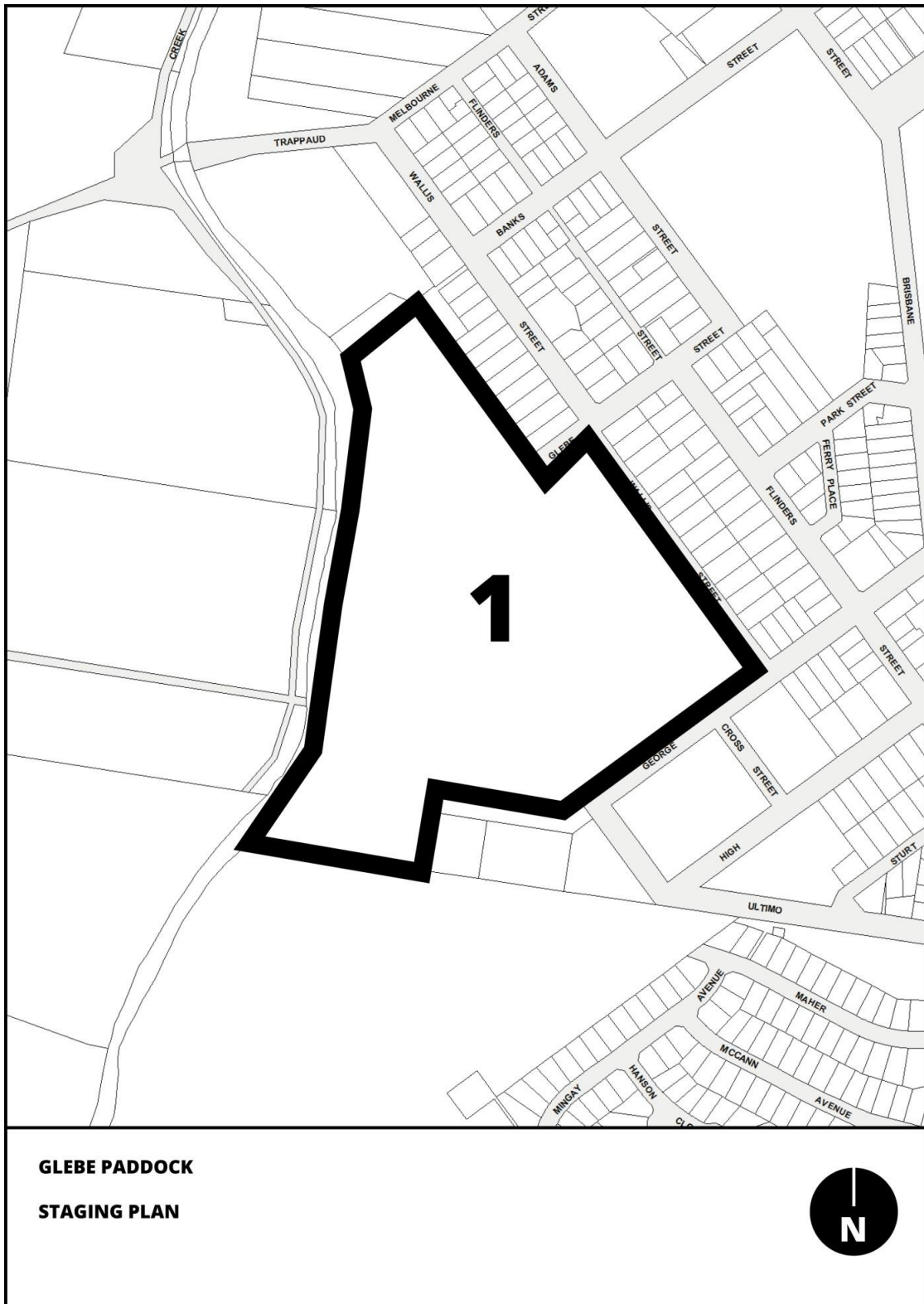


Figure 94: Glebe Paddock Staging Plan.



## F.14 - Mount Harris Urban Release Area

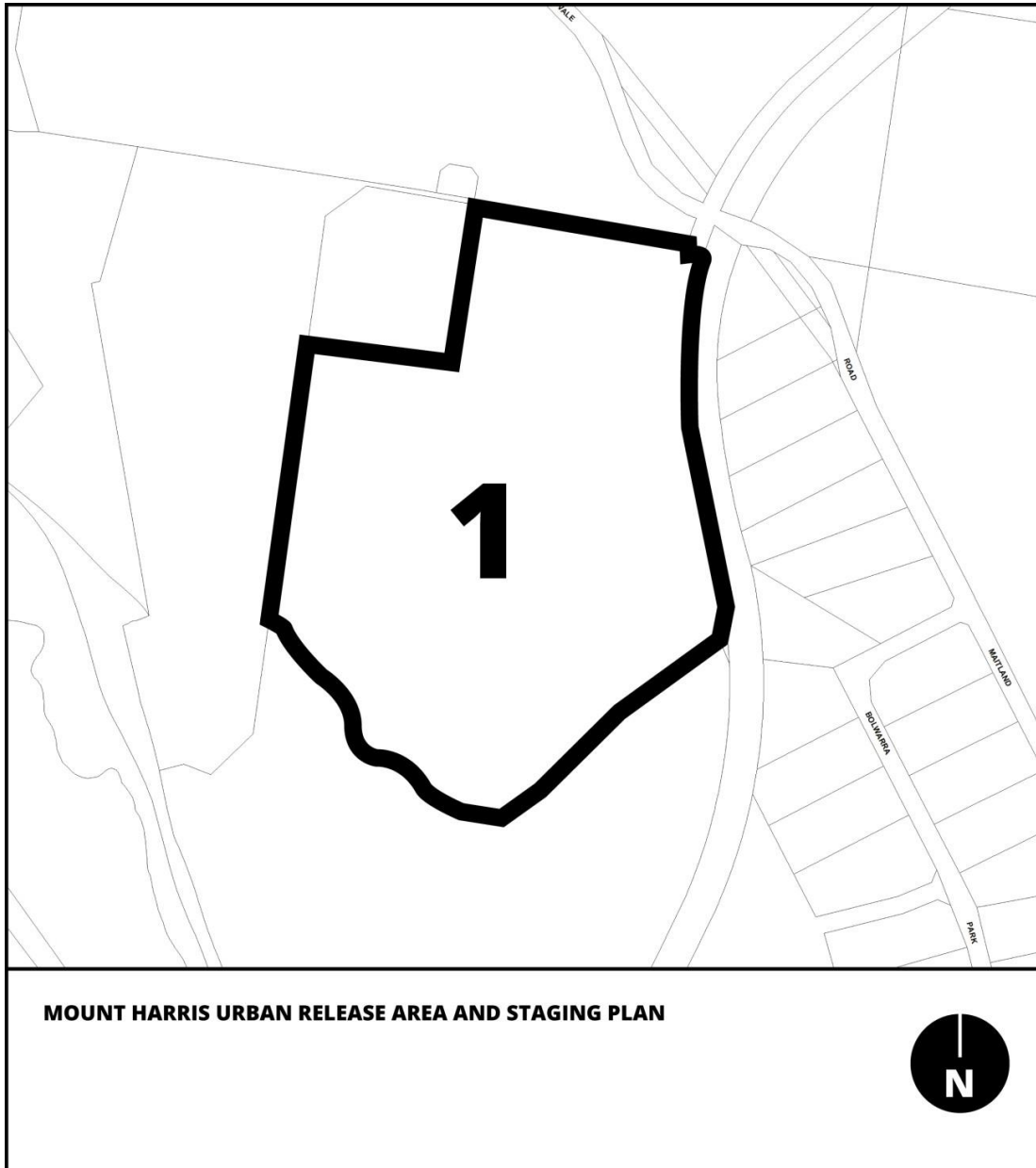


Figure 95: Mount Harris Urban Release Area and Staging Plan.

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

#### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 95.
2. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### 1.2 Transport and Movement

There are no specific requirements as transport and movement is already controlled by other provisions in the Maitland Development Control Plan 2011.

### 1.3 Overall Landscaping Strategy

There are no specific requirements as landscaping is already controlled by other provisions in the Maitland Development Control Plan 2011.

### 1.4 Passive and Active Recreation Areas

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

### 1.5 Stormwater and Water Quality Management

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

### 1.6 Amelioration of Natural and Environmental Hazards

There are no specific requirements as amelioration of natural and environmental hazards is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

### 1.7 Key Development Sites

There are no specific requirements as key development sites are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

### **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.





## Development controls

1. Staging of the urban release area should be generally in accordance with Figure 96.
2. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

### **1.2 Transport and Movement**

There are no specific requirements as transport and movement is already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.3 Overall Landscaping Strategy**

There are no specific requirements as landscaping is already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.4 Passive and Active Recreation Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.5 Stormwater and Water Quality Management**

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.6 Amelioration of Natural and Environmental Hazards**

There are no specific requirements as amelioration of natural and environmental hazards is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

### **1.7 Key Development Sites**

There are no specific requirements as key development sites are already controlled by other provisions in the Maitland Development Control Plan 2011.

### **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## F.16 - Anambah Road Urban Extension Site (106 Anambah Road, Anambah)

### DESCRIPTION

The subject land is an urban extension site, located adjacent to an existing urban residential area. The desired future character of this site is for low-density residential development which responds to the topography and environmental constraints of the site. This development makes efficient use of existing infrastructure and services to provide housing that accommodates future population growth.

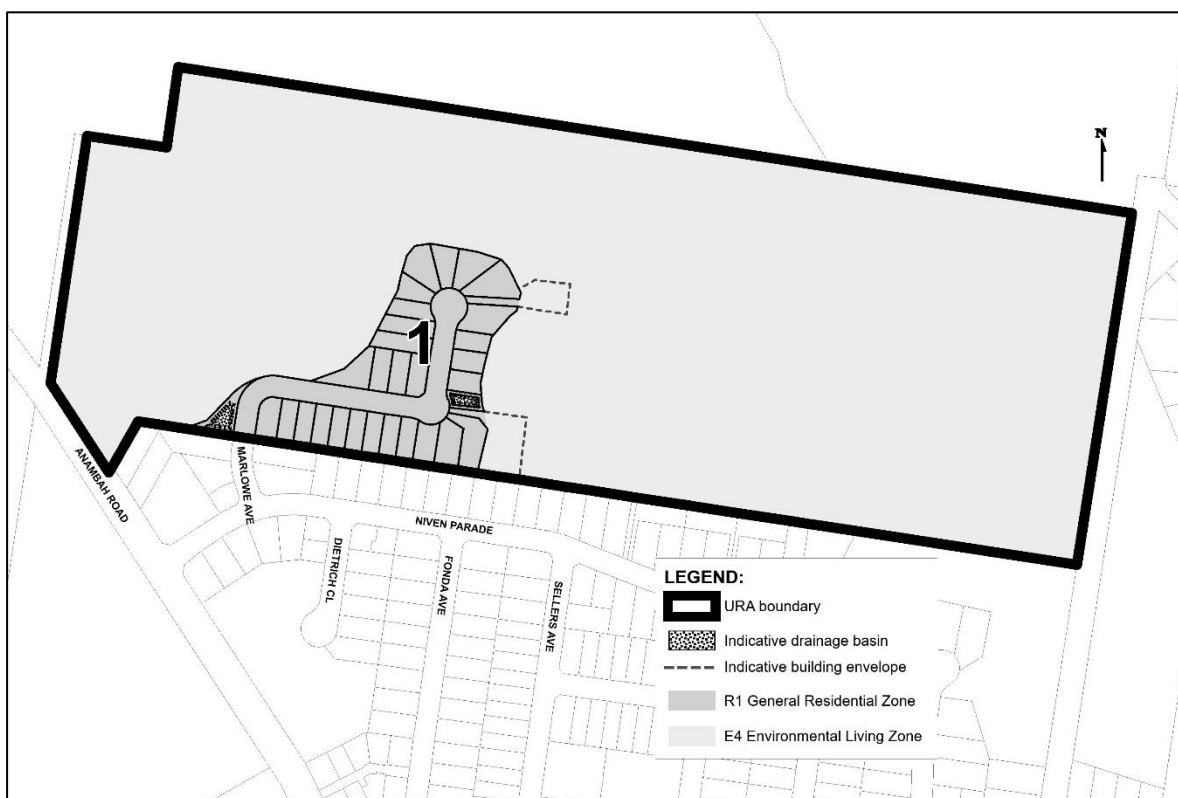


Figure 97: Anambah Road Urban Extension Site (106, Anambah Road, Anambah) and Staging Plan.

## 1. Development Requirements

### 1.1 Staging Plan

#### Objectives

1. To provide for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing.

### Development controls

1. Staging of the urban release area should be generally in accordance with Figure 97.
2. All development applications for subdivisions shall include a staged construction plan, where the development is intended to be constructed in stages.

## **1.2 Transport and Movement**

There are no specific requirements as transport and movement is already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.3 Overall Landscaping Strategy**

There are no specific requirements as landscaping is already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.4 Passive and Active Recreation Areas**

There are no specific requirements as passive and active recreational areas are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.5 Stormwater and Water Quality Management**

There are no specific requirements as stormwater and water quality management controls are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.6 Amelioration of Natural and Environmental Hazards**

### Objectives

1. To minimize the flood risk to life and property.

### Development controls

1. Each allotment to be created by the subdivision shall include flood free access and flood free land for each building envelop.

## **1.7 Key Development Sites**

There are no specific requirements as key development sites are already controlled by other provisions in the Maitland Development Control Plan 2011.



## **1.8 Residential Densities**

There are no specific requirements as residential densities are already controlled by lot size in the Maitland Local Environmental Plan 2011.

## **1.9 Neighbourhood Commercial and Retail Uses**

There are no specific requirements as neighbourhood commercial and retail uses are already controlled by other provisions in the Maitland Development Control Plan 2011.

## **1.10 Provision of Public Facilities and Services**

There are no specific requirements as provision of public facilities and services is already controlled by other provisions in the Maitland Local Environmental Plan 2011 and the Maitland Development Control Plan 2011.

## **1.11 Heritage**

### Objectives

1. To minimize the visual impacts on the State significance heritage item Anambah House and its rural landscape.

### Development controls

1. For residential properties immediately adjoining the E4 Environmental Living zone, rear boundary fencing shall be of an open style, rural type fencing, constructed of post and wire or post and rail or similar.

# **Appendix 1**



**TRAFFIC AND PARKING IMPACTS REPORT  
FOR A DEVELOPMENT APPLICATION  
FOR A PROPOSED INDUSTRIAL DEVELOPMENT  
5-7 KESTREL AVENUE, THORNTON NSW 2322**

<b>Property address</b>	5-7 Kestrel Avenue, Thornton NSW 2322
<b>Client</b>	Levant Investments Pty Ltd
<b>Prepared by</b>	O. Sannikov, MEngSc (Traffic Engineering), MIEAust, PEng, FAITPM
<b>Date</b>	06/01/22
<b>Job No.</b>	21133
<b>Report No.</b>	21133 Rep 01

<b>Item</b>	<b>Report</b>
<b>Site location</b>	<ul style="list-style-type: none"><li>• Refer to <b>Figure 1</b>.</li></ul>
<b>Existing land use</b>	<ul style="list-style-type: none"><li>• Lot 602 (DP 1005289) - vacant land</li><li>• Lot 603 (DP 1005289) - vacant land</li></ul>
<b>Proposed development</b>	<ul style="list-style-type: none"><li>• Industrial development comprising:<ul style="list-style-type: none"><li>◦ 19 light industrial/warehouse units (each with GFA between 123 m<sup>2</sup> and 255 m<sup>2</sup>)<ul style="list-style-type: none"><li>▪ Car parking area on the ground level<ul style="list-style-type: none"><li>• A total of 66 car parking spaces, including<ul style="list-style-type: none"><li>◦ 19 internal parking spaces (one space per unit, 10 spaces in tandem arrangement and 9 spaces independently accessible)</li><li>◦ 47 spaces in the common parking area<ul style="list-style-type: none"><li>▪ Including one (1) space for people with disabilities</li></ul></li></ul></li></ul></li><li>▪ 10 bicycle spaces</li></ul></li></ul></li></ul>

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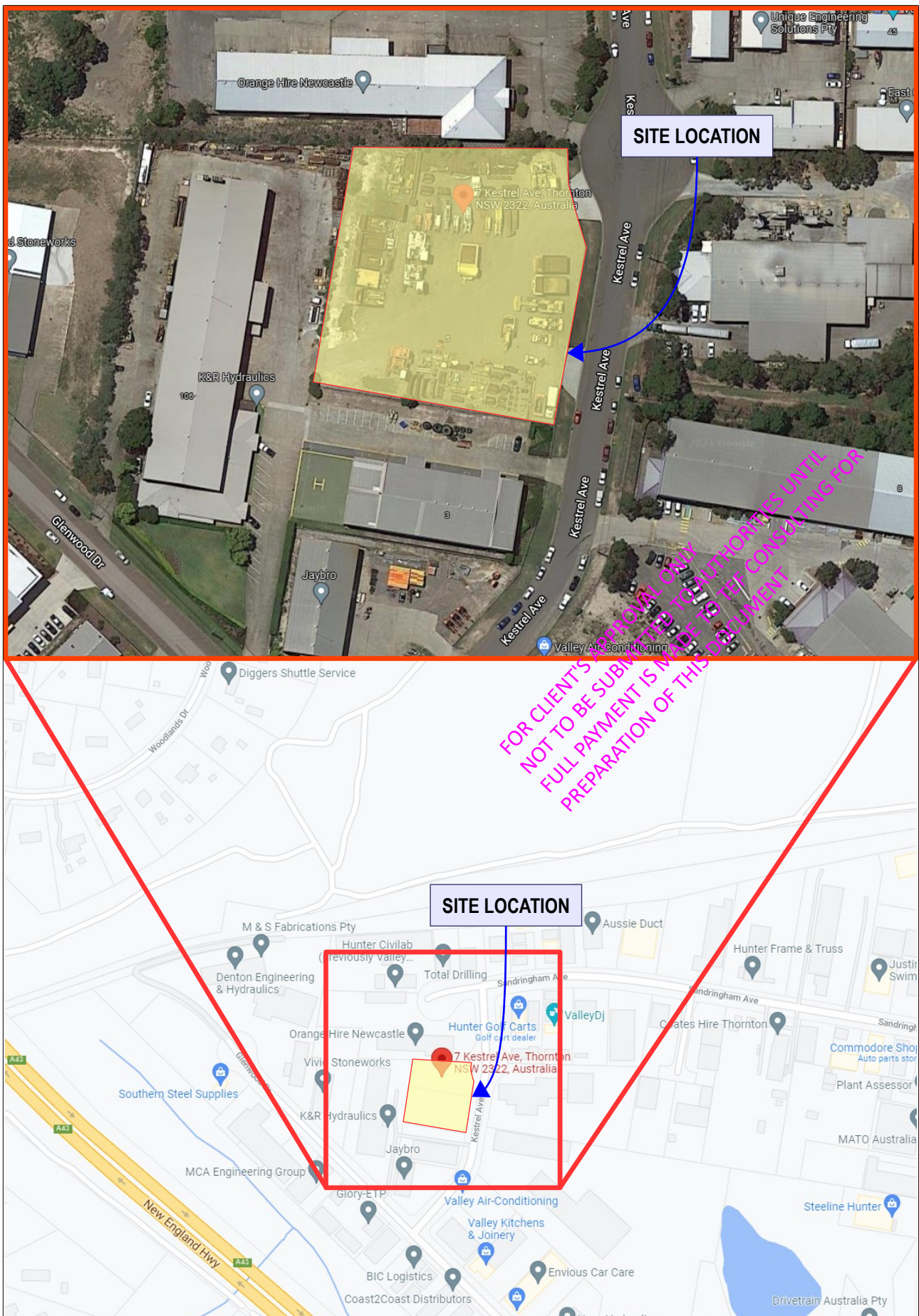


Figure 1. Site location.



Item	Report
<b>Road characteristics</b>	<p><b>Existing traffic and parking situation</b></p> <ul style="list-style-type: none"> <li>• Refer to <b>Figure 2</b>.</li> <li>• The key roads surrounding the proposed development are described below.               <ul style="list-style-type: none"> <li>◦ Kestrel Avenue                   <ul style="list-style-type: none"> <li>▪ Local road</li> <li>▪ 2 traffic lanes and parking opportunities on both sides</li> </ul> </li> <li>◦ Glenwood Drive                   <ul style="list-style-type: none"> <li>▪ Local road</li> <li>▪ 2 traffic lanes and parking opportunities on both sides</li> </ul> </li> <li>◦ Sandringham Avenue                   <ul style="list-style-type: none"> <li>▪ Local road</li> <li>▪ 2 traffic lanes and parking opportunities on both sides</li> </ul> </li> <li>◦ Thornton Road                   <ul style="list-style-type: none"> <li>▪ Local road</li> <li>▪ 2-4 traffic lanes and no parking opportunities</li> </ul> </li> <li>◦ Other streets in the surrounding area are local/local collector roads. Street conditions are typical for a residential area, with low to moderate traffic volumes.                   <ul style="list-style-type: none"> <li>▪ General speed limit is 50 km/h on local streets around the site.</li> </ul> </li> </ul> </li> </ul>
	<p><b>Public Transport</b></p> <p><b>Bus</b></p> <ul style="list-style-type: none"> <li>• Refer to <b>Figure 3</b>.</li> <li>• There closest bus stop is located outside the convenient walking distance from the site on Thornton Road (approximately 1.5 km).</li> <li>• Bus route 182               <ul style="list-style-type: none"> <li>◦ Thornton to Rutherford via Ashtonfield, Stockland Green Hills &amp; Maitland                   <ul style="list-style-type: none"> <li>▪ 3 services operate during the morning peak hours.</li> <li>▪ 3 services operates during the afternoon peak hours.</li> </ul> </li> <li>◦ Rutherford to Thornton via Maitland, Stockland Green Hills &amp; Ashtonfield                   <ul style="list-style-type: none"> <li>▪ 3 service operates during the morning peak hours.</li> <li>▪ 3 services operate during the afternoon peak hours.</li> <li>▪ The morning peak hours are between 6:30 a.m. and 9:30 a.m. and the afternoon peak hours are between 3:30 p.m. and 6:30 p.m.</li> </ul> </li> </ul> </li> </ul> <p><b>Train</b></p> <ul style="list-style-type: none"> <li>• The site is also located approximately 1.8 km from the Thornton Train station.</li> <li>• Refer to <b>Figure 3</b>.               <ul style="list-style-type: none"> <li>◦ The Hunter Line Train Services through this station</li> </ul> </li> <li>• The location of the site in relation to public transport stops does not discourage the reliance on private vehicle as a mode of travel.</li> </ul>

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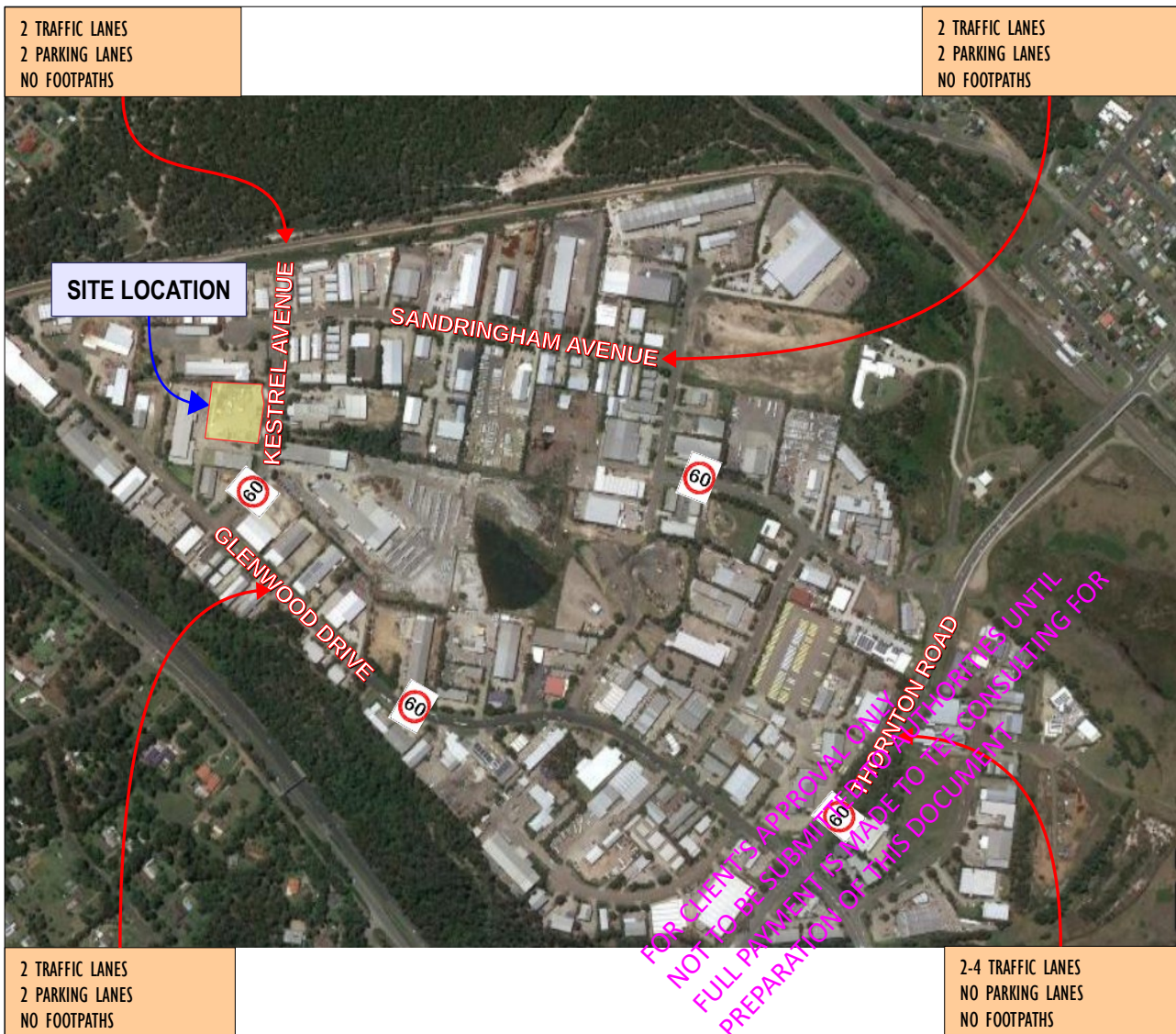


Figure 2. Road characteristics.

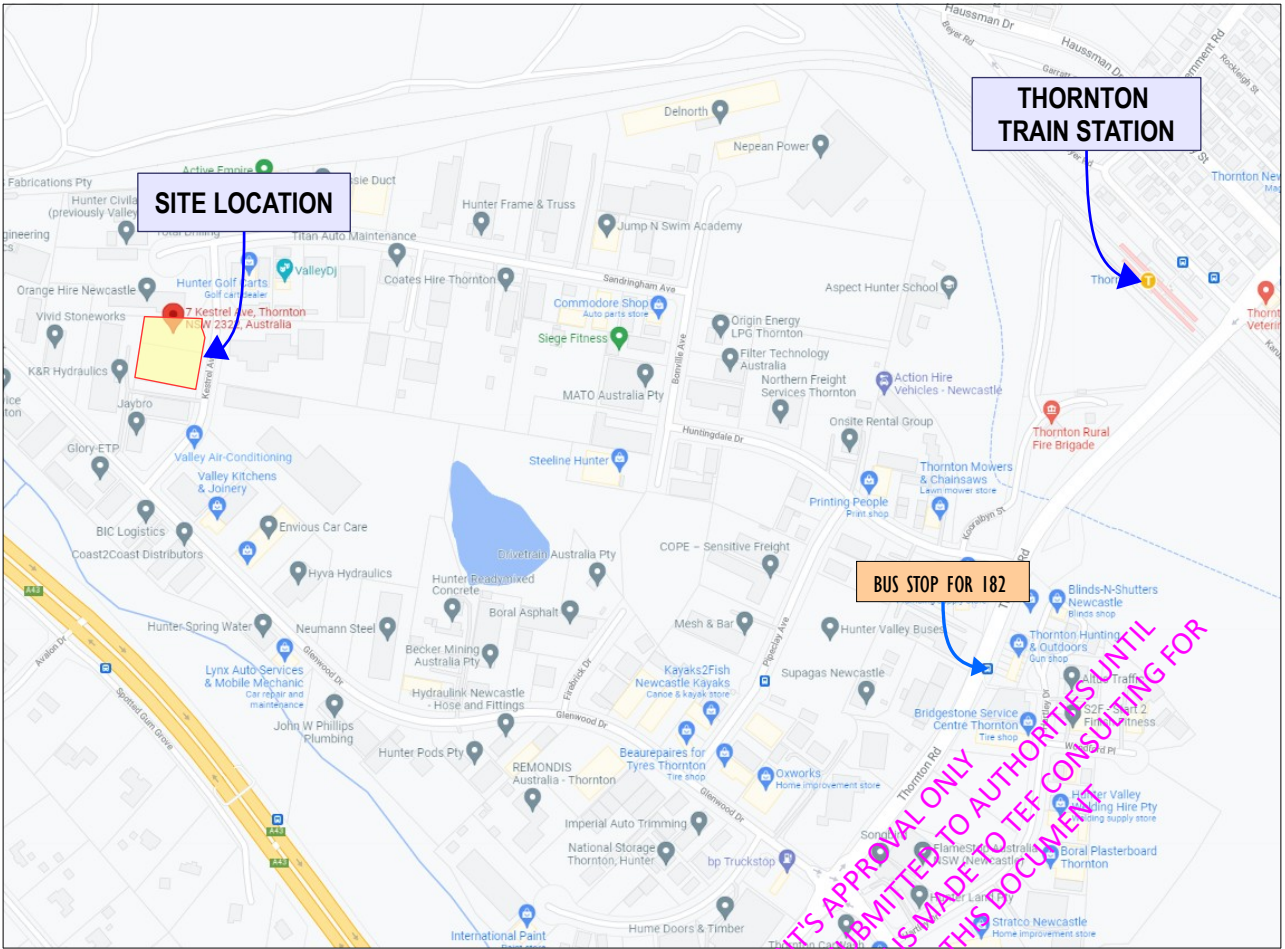


Figure 3. Public transport.

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Item	Report
	<p><b>Surveys and survey results</b></p>
<p><b>Parking survey</b></p>	<ul style="list-style-type: none"> <li>• A parking demand survey was conducted on Tuesday 07/12/21 (morning) and Monday 06/12/21 (afternoon).               <ul style="list-style-type: none"> <li>◦ The morning survey was between 6:00 a.m. and 10:00 a.m.</li> <li>◦ The afternoon survey was between 2:30 p.m. and 7:00 p.m.</li> </ul> </li> <li>• Refer to <b>Figure 4</b> for survey locations               <ul style="list-style-type: none"> <li>◦ Areas in red represent a convenient walking distance of up to 150 metres from the site.</li> <li>◦ Areas in blue represent a close walking distance within 250 metres from the site.</li> </ul> </li> </ul>
<p><b>Survey results</b></p>	<ul style="list-style-type: none"> <li>• Refer to <b>Table 1</b> for survey results.</li> <li>• Areas 1a-3b (within 150 m walking distance).               <ul style="list-style-type: none"> <li>◦ The morning peak occurred between 9:00 a.m. and 10:00 a.m.</li> <li>◦ The afternoon peak occurred between 3:00 p.m. and 4:00 p.m.</li> <li>◦ The survey results indicated that there were at least 37 spaces vacant throughout the day (to a maximum of 64) in the survey area.</li> </ul> </li> <li>• Areas 4-8 (between 150 to 250 m walking distance).               <ul style="list-style-type: none"> <li>◦ The morning peak occurred at 10:00 a.m.</li> <li>◦ The afternoon peak occurred between 3:00 p.m. and 4:00 p.m.</li> <li>◦ The survey results indicated that there were at least 24 spaces vacant throughout the day (to a maximum of 82) in the survey area.</li> </ul> </li> </ul>

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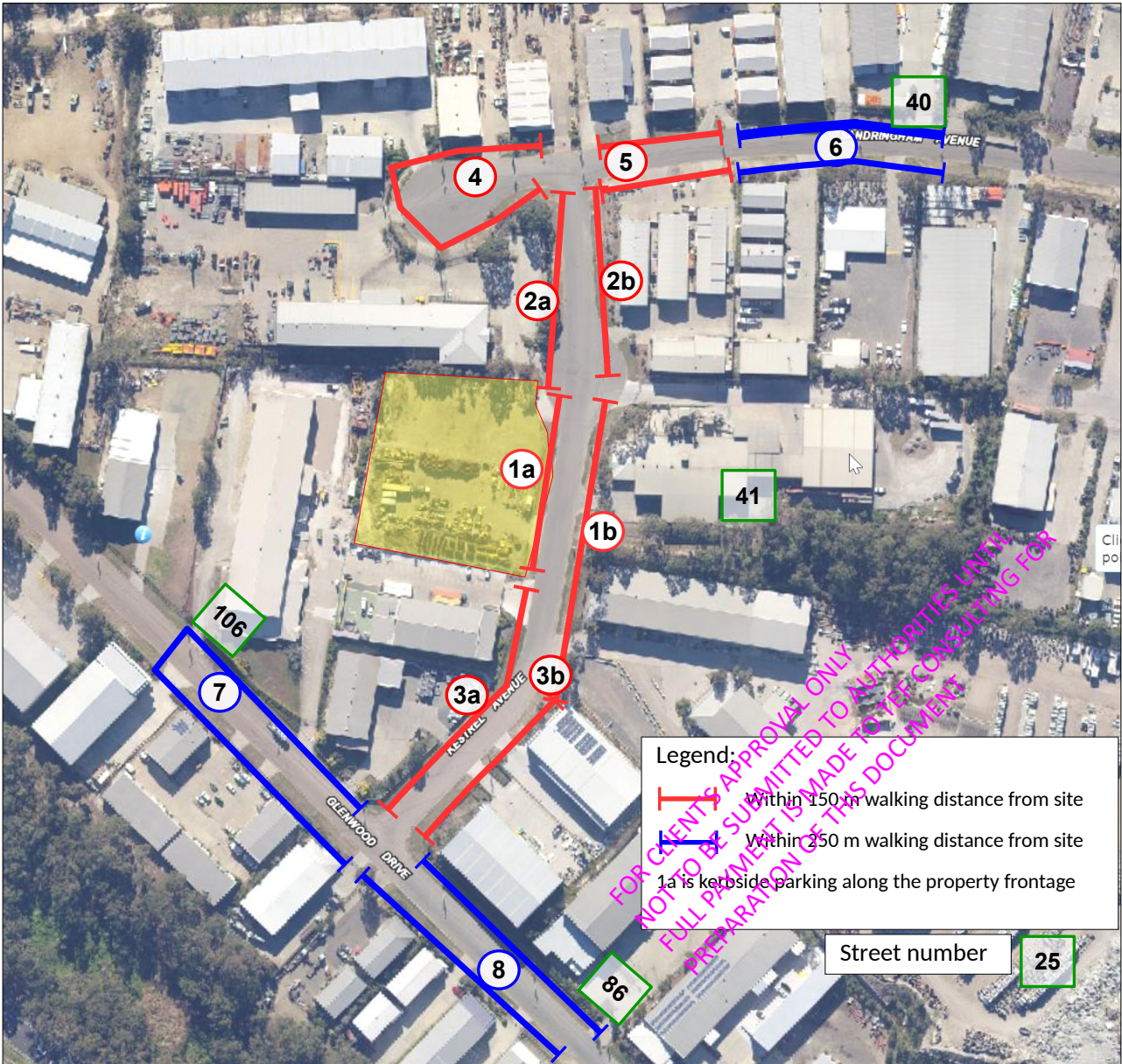


Figure 4. Parking demand survey locations.

**Table 1. Parking demand survey results.**

7/12/2021		Number of parked cars																
Tuesday		Parking Location														Total		
Time	1a	1b		2a	2b	3a	3b	4		5		6	7	8		1a to 3b	4 to 8	All
		A	B					A	B	A	B			A	B			
6:00	0	2	2	0	2	0	1	2	1	2	1	4	3	3	2	7	18	25
6:30	0	3	2	0	2	3	5	3	1	3	1	4	5	7	2	15	26	41
7:00	0	4	2	1	4	4	5	7	1	4	1	2	5	7	3	20	30	50
7:30	0	4	2	1	4	4	5	7	1	4	1	2	6	11	3	20	35	55
8:00	0	4	2	2	5	6	6	11	2	4	1	2	9	12	4	25	45	70
8:30	0	3	1	2	5	6	6	13	2	4	1	2	8	12	4	23	46	69
9:00	0	5	1	1	5	9	8	15	3	5	2	2	10	14	4	29	55	84
9:30	0	4	1	2	5	9	8	15	3	3	3	4	10	15	4	29	57	86
10:00	0	5	0	3	7	9	8	15	3	2	3	4	11	18	4	32	60	92
No of spaces	8	10	0	10	11	15	12	16	0	10	0	20	24	30	0	66	100	166
		A = On-road parking					B = Grass verge parking											

6/12/2021		Number of parked cars																
Monday		Parking Location														Total		
Time	1a	1b		2a	2b	3a	3b	4		5		6	7	8		1a to 3b	4 to 8	All
		A	B					A	B	A	B			A	B			
14:30	0	2	1	4	4	5	4	9	0	4	1	4	8	7	6	20	39	59
15:00	0	3	1	5	4	6	6	10	0	4	1	4	8	7	6	25	40	65
15:30	0	2	2	5	4	6	4	8	0	5	1	4	7	8	6	23	39	62
16:00	0	2	2	4	4	3	2	8	2	5	1	4	8	8	6	17	42	59
16:30	0	1	1	2	4	2	1	6	2	4	1	3	8	8	6	11	38	49
17:00	0	1	1	0	1	1	0	2	1	3	1	4	4	4	5	4	24	28
17:30	0	1	1	0	0	1	0	1	0	3	1	4	3	4	4	3	20	23
18:00	0	1	1	0	0	1	0	1	0	2	1	3	3	4	4	3	18	21
18:30	0	1	1	0	0	1	0	2	0	2	1	2	3	5	4	3	19	22
19:00	0	1	1	0	0	0	0	1	0	1	1	2	3	4	2	2	14	16
No of spaces	8	10	0	10	11	15	12	16	0	10	0	20	24	30	0	66	100	166

7/12/2021		Number of vacant parking spaces																
Tuesday		Parking Location														Total		
Time	1a	1b		2a	2b	3a	3b	4		5		6	7	8		1a to 3b	4 to 8	Total
		A	B					A	B	A	B			A	B			
6:00	8	8	-2	10	9	15	11	14	-1	8	-1	16	21	27	-2	59	82	141
6:30	8	7	-2	10	2	12	7	13	-1	7	-1	4	5	7	-2	44	32	76
7:00	8	6	-2	9	4	11	7	9	-1	6	-1	2	5	7	-3	43	24	67
7:30	8	6	-2	9	4	11	7	9	-1	6	-1	2	6	11	-3	43	29	72
8:00	8	6	-2	8	5	9	6	5	-2	6	-1	2	9	12	-4	40	27	67
8:30	8	7	-1	8	5	9	6	3	-2	6	-1	2	8	12	-4	42	24	66
9:00	8	5	-1	9	5	6	4	1	-3	5	-2	2	10	14	-4	36	23	59
9:30	8	6	-1	8	5	6	4	1	-3	7	-3	4	10	15	-4	36	27	63
10:00	8	5	0	7	7	6	4	1	-3	8	-3	4	11	18	-4	37	32	69
		A = On-road parking					B = Grass verge parking											

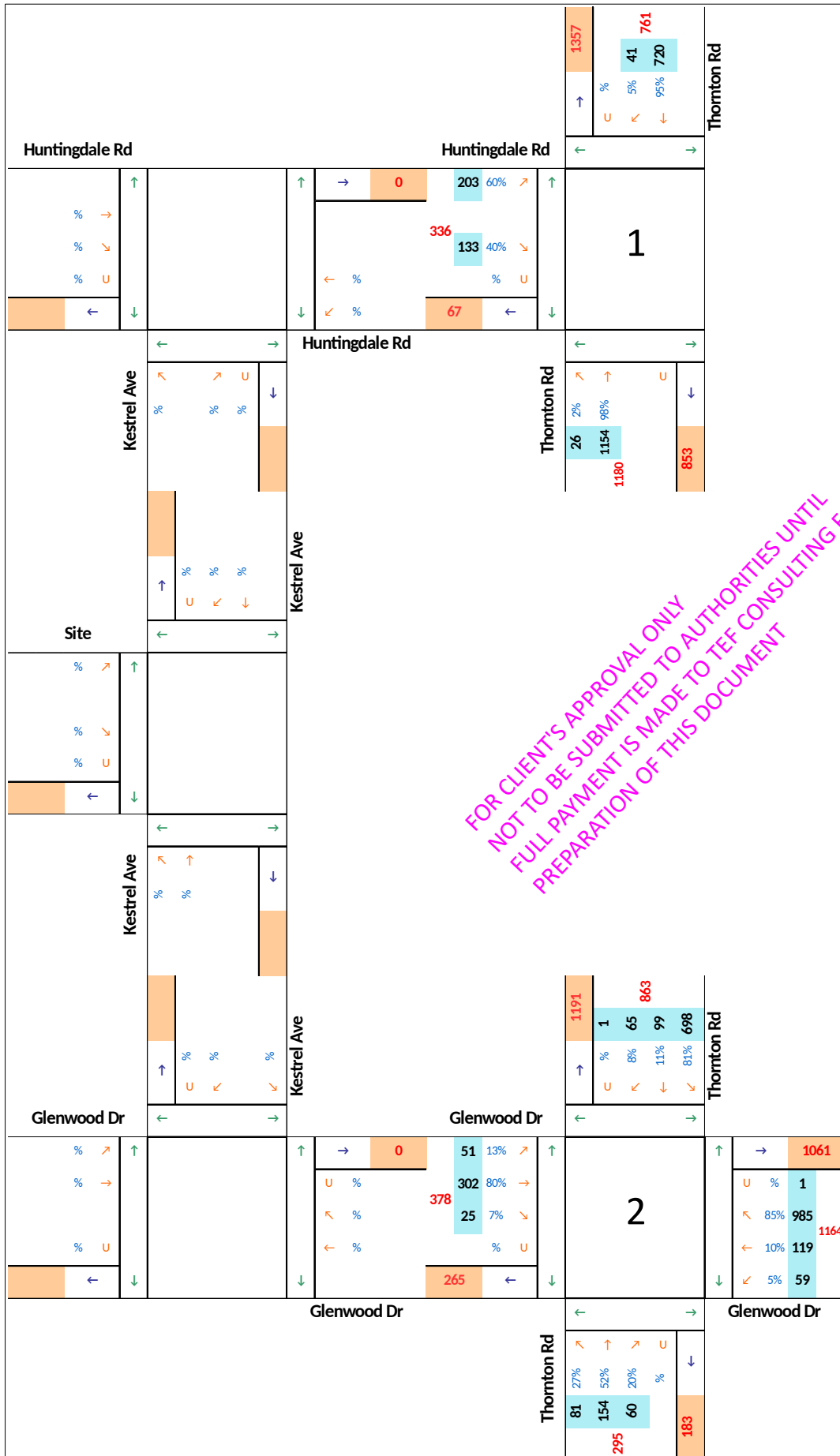
6/12/2021		Number of vacant parking spaces																
Monday		Parking Location														Total		
Time	1a	1b		2a	2b	3a	3b	4		5		6	7	8		1a to 3b	4 to 8	Total
		A	B					A	B	A	B			A	B			
14:30	8	8	-1	6	7	10	8	7	0	6	-1	16	16	23	-6	46	61	107
15:00	8	7	-1	5	7	9	6	6	0	6	-1	16	16	23	-6	41	60	101
15:30	8	8	-2	5	7	9	8	8	0	5	-1	16	17	22	-6	43	61	104
16:00	8	8	-2	6	7	12	10	8	-2	5	-1	16	16	22	-6	49	58	107
16:30	8	9	-1	8	7	13	11	10	-2	6	-1	17	16	22	-6	55	62	117
17:00	8	9	-1	10	10	14	12	14	-1	7	-1	16	20	26	-5	62	76	138
17:30	8	9	-1	10	11	14	12	15	0	7	-1	16	21	26	-4	63	80	143
18:00	8	9	-1	10	11	14	12	15	0	8	-1	17	21	26	-4	63	82	145
18:30	8	9	-1	10	11	14	12	14	0	8	-1	18	21	25	-4	63	81	144
19:00	8	9	-1	10	11	15	12	15	0	9	-1	18	21	26	-2	64	86	150

item	Report
<b>Intersection traffic volume counts</b>	<b>Traffic counts</b>
	Location / type of control    Huntingdale Road / Thornton Road (T-intersection, Give Way control) Glenwood Drive / Thornton Road (four-way roundabout)
	Date / Day of the week        Tuesday 07/12/2021 (morning) and Monday 06/12/2021 (afternoon).
	Time period (AM)                05:00 to 11:00; the morning peak hour occurred between 07:30 and 08:30
	Time period (PM)                14:00 to 19:30; the afternoon peak hour occurred between 15:45 and 16:45
	<ul style="list-style-type: none"> <li>Refer to <b>Figures 5</b> and <b>6</b> demonstrate existing traffic counts for morning and afternoon commuter peak hours.</li> </ul>

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Figure 6. Existing traffic volumes - afternoon peak hour.

Item	Report
Planning control document	<ul style="list-style-type: none"> <li>• Maitland City Council               <ul style="list-style-type: none"> <li>◦ Maitland Development Control Plan 2011                   <ul style="list-style-type: none"> <li>▪ Part C – Design Guidelines                       <ul style="list-style-type: none"> <li>• Chapter C.5 – Industrial Land</li> <li>• Chapter C.11 – Vehicular Access &amp; Car Parking</li> </ul> </li> </ul> </li> </ul> </li> </ul>

Requirement	Compliance
-------------	------------

**Chapter C.5 – Industrial Land**

**3. DEVELOPMENT GUIDELINES**

**Vehicular Access**

11. Access drives shall have a minimum width of 6 metres (Note: Major traffic generating developments may require a greater access width, divided at the property line). Complies and exceeds (separate entry and exit driveways 11.6 m wide are provided)

12. Access drives shall not be located in close proximity to an intersection. Complies

13. Loading and unloading facilities appropriate to the particular development are to be provided on site such that service vehicles are located wholly within the site, and do not create conflicts with parking areas. Complies

**Parking**

14. See C.1: Vehicular Access and Parking for number of parking spaces required. Refer to a separate assessment under C.11 (the DCP contains an error in referencing C.1)

15. All car parking facilities shall be located behind the front 5 metre landscaped area; Complies

16. Where it is proposed to locate parking facilities behind an industrial building or to the rear of an industrial site, separate provision for visitor parking shall be made in front of the building and behind the front 5 metre landscaped area. Complies

**Chapter C.11 – Vehicular Access & Car Parking**

**2.2 Calculation of Parking Requirements**

**a) Development Generally**

The minimum number of parking spaces to be provided for a particular development is to be calculated in accordance with Appendix A of this policy.

**Appendix A**

**Car Parking Requirements for Specific Land Uses**

LAND USE	PARKING	COMMENTS
Industry	1 space per 75m <sup>2</sup> GFA or 1 space per 2 employees <i>WHICHEVER IS THE GREATER</i>	This requirement may increase if retailing is permitted on the site, or the office space component is in excess of 20% of the floor area.

Item	Report												
	<table border="1"> <thead> <tr> <th>Requirement</th> <th>Compliance</th> </tr> </thead> <tbody> <tr> <td><b>Car parking required</b></td> <td><b>Car parking proposed</b></td> </tr> <tr> <td>The proposed development is a set of industrial units.</td> <td>66 spaces are proposed (including 19 internal spaces, one (1) space in each unit).</td> </tr> <tr> <td>The total GFA is 2801 m<sup>2</sup>.</td> <td>Complies and exceeds by 28 spaces</td> </tr> <tr> <td>2801 / 75 = 37.3, say <b>38 spaces</b></td> <td></td> </tr> <tr> <td>The exact use of each unit and hence the number of employees are not yet known, therefore the alternative parking requirement based on the number of employees cannot be calculated.</td> <td>However, the proposed car parking provision of 66 spaces would allow for 132 employees. This equates to 7 employees per unit on average, which is considered to be unrealistically high for the proposed type of the development and the proposed unit sizes.</td> </tr> </tbody> </table>	Requirement	Compliance	<b>Car parking required</b>	<b>Car parking proposed</b>	The proposed development is a set of industrial units.	66 spaces are proposed (including 19 internal spaces, one (1) space in each unit).	The total GFA is 2801 m <sup>2</sup> .	Complies and exceeds by 28 spaces	2801 / 75 = 37.3, say <b>38 spaces</b>		The exact use of each unit and hence the number of employees are not yet known, therefore the alternative parking requirement based on the number of employees cannot be calculated.	However, the proposed car parking provision of 66 spaces would allow for 132 employees. This equates to 7 employees per unit on average, which is considered to be unrealistically high for the proposed type of the development and the proposed unit sizes.
Requirement	Compliance												
<b>Car parking required</b>	<b>Car parking proposed</b>												
The proposed development is a set of industrial units.	66 spaces are proposed (including 19 internal spaces, one (1) space in each unit).												
The total GFA is 2801 m <sup>2</sup> .	Complies and exceeds by 28 spaces												
2801 / 75 = 37.3, say <b>38 spaces</b>													
The exact use of each unit and hence the number of employees are not yet known, therefore the alternative parking requirement based on the number of employees cannot be calculated.	However, the proposed car parking provision of 66 spaces would allow for 132 employees. This equates to 7 employees per unit on average, which is considered to be unrealistically high for the proposed type of the development and the proposed unit sizes.												
b) Mixed Uses	<p>The proposed design does not show internal offices. The dimensions of offices will be defined by internal fit-out for the owners/lessees of each unit. It is assumed that the offices will occupy less than 20% of each unit.</p> <p>However, even if they occupied, say, 50% of each unit, the required parking provision would be 54 spaces (calculated at 1 space per 40 m<sup>2</sup> for office space). The proposed car parking provision is still greater than the DCP requirement for such a scenario.</p>												
c) Calculation of Numbers	Refer to the calculations above												
Where the calculation results in a fraction of a space, the total number of parking spaces required will be the next highest whole number.													
d) Change of Use	Not applicable												
e) Renovation of Existing Buildings	Not applicable												
f) Extensions/Additions to Existing Development	Not applicable												
g) Small Scale Additions	Not applicable												
h) Complementary Parking Facilities	Not applicable However, parking accumulation surveys showed substantial on street parking availability near the site.												
<b>3. GUIDELINES FOR THE DESIGN, LAYOUT AND CONSTRUCTION OF ACCESS AND PARKING AREAS</b>													
The dimensional requirements for on-site car parking spaces and driveways giving access to parking spaces shall generally be as set out in accordance with the Australian Standard AS2890.1-1993 Parking Facilities – Off-Street Car Parking, and summarised below.	The proposed design complies with the current Standards AS/NZS 2890.1:2004, AS 2890.2:2018 and AS/NZS 2890.6:2009												
3.1 Access To The Site	Complies												
A development should be designed to provide adequate on-site manoeuvring and circulating areas to ensure that all vehicles can enter and leave the site in a forward direction.	The design utilises the exiting previously approved access locations.												
3.2 Sight Distances	Complies												
Consideration must be given to maintaining adequate sight distances for all access driveways. Any vehicle entering or leaving the													

Item	Report	
	Requirement	Compliance
	<p>driveway must be visible to approaching vehicles and pedestrians. AS 2890.1 Off Street Car Parking gives minimal and desirable sight distances for a range of road frontage speeds.</p>	
	<p>3.3 Entrance / Exit to the Site</p>	
	<ul style="list-style-type: none"> <li>• separate entrance and exit driveways should be provided for developments requiring more than 50 car parking spaces or where the development generates a high turnover of traffic such as a service station or other drive- in retail facilities;</li> </ul>	Complies
	<ul style="list-style-type: none"> <li>• entry and exit driveways shall be clearly signposted;</li> </ul>	Capable of compliance at the Construction Certificate Stage
	<ul style="list-style-type: none"> <li>• the number of access points from a development site to any one street frontage should be limited to one ingress and one egress; and</li> </ul>	Complies
	<ul style="list-style-type: none"> <li>• the potential for on-street queuing should be minimised by ensuring that adequate standing areas are available for vehicles entering the car park and loading areas.</li> </ul>	Complies
	<p>3.4 Location of Parking Areas</p> <p>Parking facilities for visitors and customers shall be provided where clearly visible from the street so their use is encouraged.</p>	<p>A common employee/visitor car parking area is proposed. If required, allocation of parking spaces can be detailed at the Construction Certificate Stage</p>
	<p>3.5 Parking Space and Aisle Dimensions</p>	<p>The proposed design complies with the current Standards AS/NZS 2890.1:2004, AS 2890.2:2018 and AS/NZS 2890.6:2009</p>
<p>4. LOADING/UNLOADING REQUIREMENTS</p>		
	<p>4.2 Number and Size of Loading Bays</p> <p>The number and dimensions of the on-site loading bays must be designed having regard to the nature and scale of the proposed development, the estimated frequency of deliveries, the type of delivery vehicle likely to be involved and the types of goods being loaded/unloaded. Accordingly, these details are required to be submitted with the Development Application for Council's consideration.</p> <p>As a guide, for small and medium-sized shops or commercial premises, restaurants or small-scale industrial development likely to involve the use of vans, utilities or small trucks only, one loading bay will usually be sufficient.</p>	<p>The proposed units are small (each with GFA between 123 m<sup>2</sup> and 255 m<sup>2</sup>). It is expected that they will be serviced by vans, utilities or small trucks only. Each unit is provided with a roller door access and the internal area suitable for parking of vans, utilities or small trucks.</p> <p>Also, the excess car parking spaces can be used by vans and utilities.</p> <p>An area in front of units 12 and 13 can be used for loading/unloading of vehicles up to the size of a Heavy Rigid Vehicle (12.5 m long as per AS 2890.2:2018). Such deliveries are expected to be rare and can be managed between the unit operators.</p>
<p>5. CAR PARKING FOR PERSONS WITH A DISABILITY</p>		
	<p>Special parking spaces for persons with a disability are to be made available in the provision of car parking facilities, in accordance with Australian Standard AS2890.1 - 1993. In general, where 10 or more vehicle spaces are required, one designated parking space for people with disabilities is required per 100 (or part thereof) car spaces provided.</p>	<p>The proposed design incorporates one (1) space, compliant with AS/NZS 2890.6:2009.</p> <p>Complies</p>
<p>6. BICYCLE PARKING</p>		
	<p>Provision is to be made for cyclists via the</p>	<p>10 bicycle spaces are proposed, compliant with the current Standard (AS/NZS 2890.3:2015).</p>





Item	Report				
	<table border="1"><thead><tr><th data-bbox="379 226 877 271">Requirement</th><th data-bbox="877 226 1444 271">Compliance</th></tr></thead><tbody><tr><td data-bbox="379 271 877 421">installation of bicycle parking facilities in accordance with Australian Standard AS 2890.3-1993 – Bicycle Parking Facilities and Austroads Guide to Traffic Engineering, Part 14.</td><td data-bbox="877 271 1444 421">Complies</td></tr></tbody></table>	Requirement	Compliance	installation of bicycle parking facilities in accordance with Australian Standard AS 2890.3-1993 – Bicycle Parking Facilities and Austroads Guide to Traffic Engineering, Part 14.	Complies
Requirement	Compliance				
installation of bicycle parking facilities in accordance with Australian Standard AS 2890.3-1993 – Bicycle Parking Facilities and Austroads Guide to Traffic Engineering, Part 14.	Complies				
	7. MAJOR TRAFFIC GENERATING DEVELOPMENT Not applicable				

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	<b>Traffic impacts of the facility operation</b>
<b>Traffic generation</b>	<ul style="list-style-type: none"> <li>• <b>Base traffic generation rates</b> <ul style="list-style-type: none"> <li>◦ Based on RMS (2002) Guide to Traffic Generating Developments (as amended in TD 2013/04a)</li> </ul> </li> <li>• <b>Traffic generated by the proposed development</b> <ul style="list-style-type: none"> <li>◦ Industrial development           <ul style="list-style-type: none"> <li>▪ Total GFA is 2801 m<sup>2</sup></li> <li>▪ Morning weekday peak hour vehicle trip rate: 0.7 per 100 m<sup>2</sup> GFA  <math>0.7 \times 2801 / 100 = 19.6</math> say <b>20 trips per hour</b></li> <li>▪ Afternoon weekday peak hour vehicle trip rate: 0.78 per 100 m<sup>2</sup> GFA  <math>0.78 \times 2801 / 100 = 21.84</math> say <b>22 trips per hour</b></li> </ul> </li> </ul> </li> </ul>
<b>Traffic distribution</b>	<ul style="list-style-type: none"> <li>◦ Trip distribution is based on the analysis of the existing traffic distribution at the entry/exit intersections for the area where the site located.           <ul style="list-style-type: none"> <li>▪ Morning peak hour vehicle trips               <ul style="list-style-type: none"> <li>• <b>20 trips per hour</b> <ul style="list-style-type: none"> <li>◦ <math>19.6 \times 0.7 = 13.7 = 14</math> trips in</li> <li>◦ <math>19.6 \times 0.3 = 5.9 = 6</math> trips out</li> </ul> </li> <li>▪ Afternoon peak hour vehicle trips               <ul style="list-style-type: none"> <li>• <b>22 trips per hour</b> <ul style="list-style-type: none"> <li>◦ <math>21.84 \times 0.32 = 6.98 = 7</math> trips in</li> <li>◦ <math>21.84 \times 0.68 = 14.9 = 15</math> trips out</li> </ul> </li> </ul> </li> </ul> </li> <li>• The results are shown in <b>Figures 7 and 8.</b></li> </ul> </li></ul>

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Figure 7. Distribution of additional traffic volumes during the morning peak hour.



Figure 8. Distribution of additional traffic volumes during the afternoon peak hour.



**Impacts on intersection operation**

- **SIDRA modelling**
  - The operation of the street network under additional traffic loading was modelled using the SIDRA network software.
    - **Table 2** contains a summary of the SIDRA modelling results
  - The modelling results show comparison of the existing situation with that after the proposed development. The results indicate the following:
    - The existing LoS at the Thornton Rd / Huntingdale Dr intersection (LoS B in the morning and LoS D in the afternoon commuter peak hours) will remain the same, with insignificant changes to the average delays and queuing.
    - The existing LoS at the Thornton Rd / Glenwood Dr intersection (LoS B in the morning and in the afternoon commuter peak hours) will remain the same, with insignificant or no changes to the average delays and queuing.

**Conclusion**

- Additional traffic generation will have no detrimental impacts on the existing road network operation nor on road safety.

**Table 2. SIDRA modelling results.**

Intersection	Existing									
	AM Peak					PM Peak				
	AVD	LOS	DS	Queue, m	Movement	AVD	LOS	DS	Queue, m	Movement
Thornton Rd/Huntingdale Dr	15.4	B	0.09	2.6	HDr WB R	43.4	D	0.83	27.7	HDr WB R
Thornton Rd/Glenwood Dr	16.3	B	0.34	18.4	GDr WB U	16.3	B	0.34	18.4	GDr WB U

Intersection	After development									
	AM Peak					PM Peak				
	AVD	LOS	DS	Queue, m	Movement	AVD	LOS	DS	Queue, m	Movement
Thornton Rd/Huntingdale Dr	15.5	B	0.10	2.6	HDr WB R	43.5	D	0.85	29.8	HDr WB R
Thornton Rd/Glenwood Dr	16.3	B	0.35	18.9	GDr WB U	16.3	B	0.35	18.9	GDr WB U

TRd	Thornton Rd	EB	Eastbound
HDr	Huntingdale Dr	WB	Westbound
GDr	Glenwood Dr	NB	Northbound
ND	New development	SB	Southbound
		T	Through movement
		U	U turn
		R	Right hand turn
		I	Left hand turn

Level of service criteria for intersections			
Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Signs
A	< 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays; Roundabouts require other control mode	At capacity, requires other control mode

Source: RTA (2002) Guide to Traffic Generating Developments

## Conclusions

- Proposed parking provision
  - Complies with and exceeds Council's Development Control Plan requirements.
- Traffic impacts
  - The additional traffic from the proposed development will have no negative impacts on the road network operation.
- Design of access, car parking and servicing facilities
  - Complies with the relevant Standards
- The proposed development is supportable on traffic and parking grounds.

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MIEAust, PEng  
FAITPM

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**References:**

Maitland Development Control Plan 2011

RMS (2002) Guide to Traffic Generating Developments

AS/NZS 2890.1:2004: Parking Facilities – Off-street car parking

AS 2890.2-2002: Parking Facilities – Off-street commercial vehicle facilities

AS 2890.3:2015: Parking Facilities – Bicycle parking

AS/NZS 2890.6:2009: Parking Facilities – Off-street parking for people with disabilities

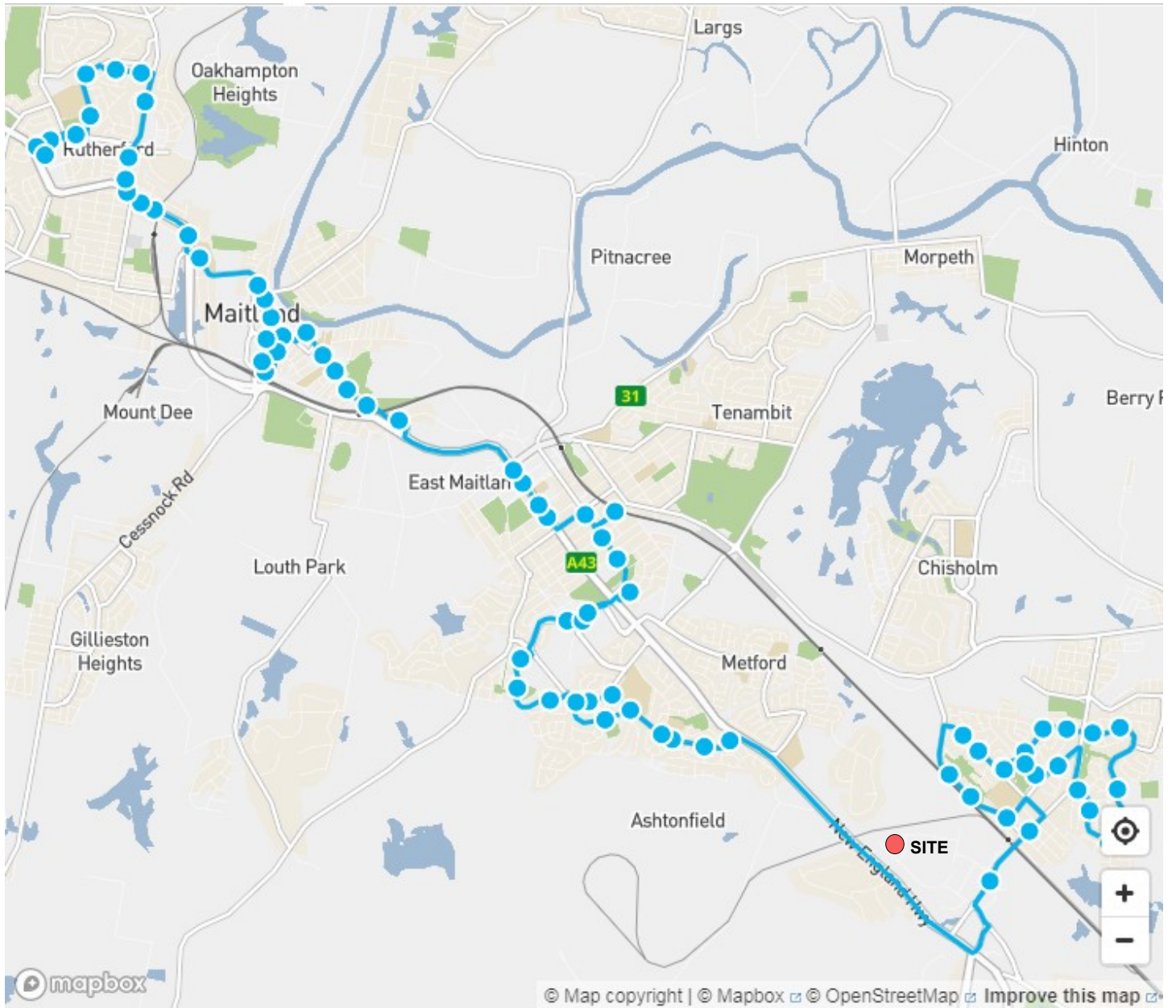
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## Appendix

Public transport routes  
Results of SIDRA modelling  
Reduced copy of the architect's drawings  
Design checks and proposed vehicle turning diagrams

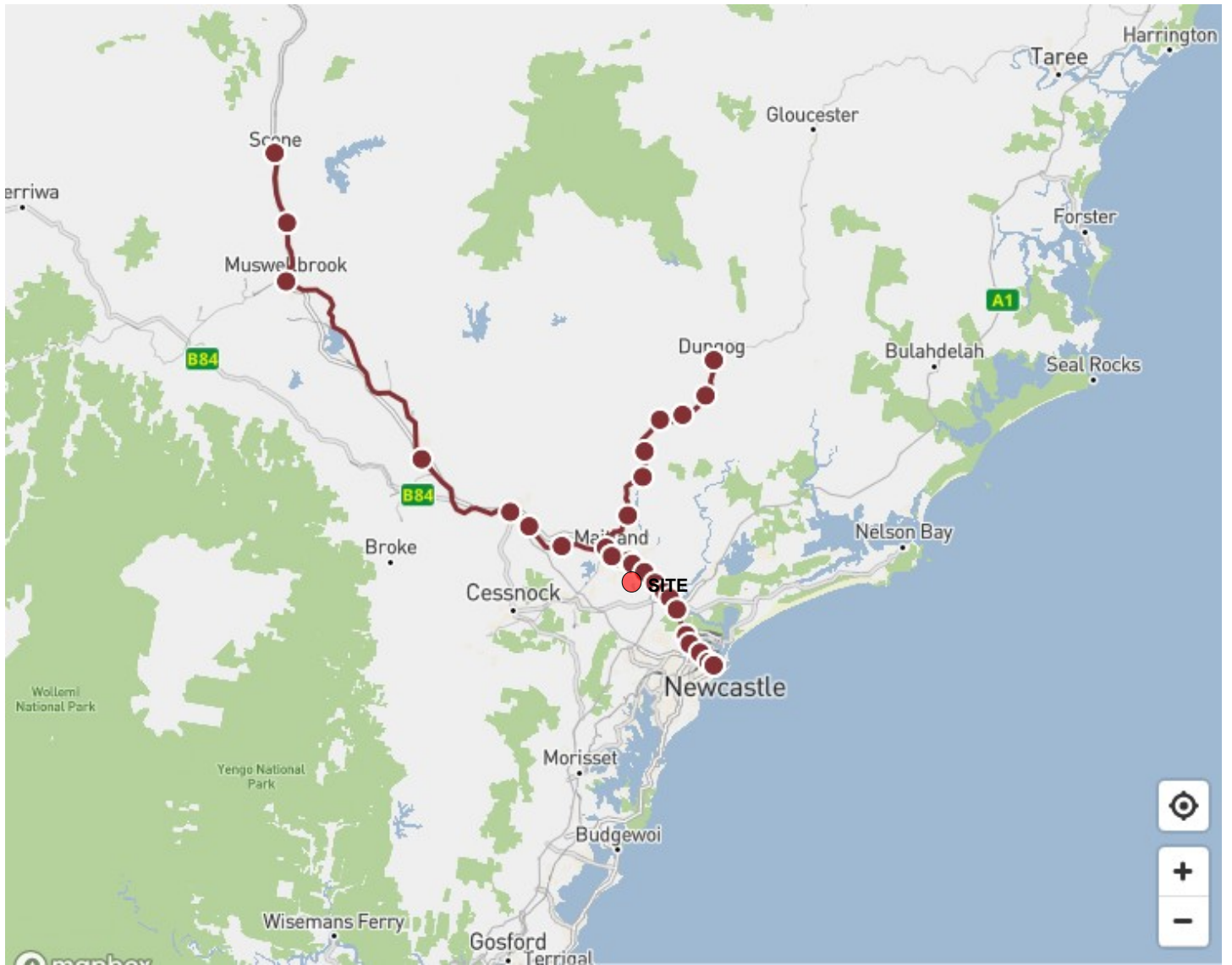
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# Bus Route 182





# Train Route Hunter line



# SITE LAYOUT

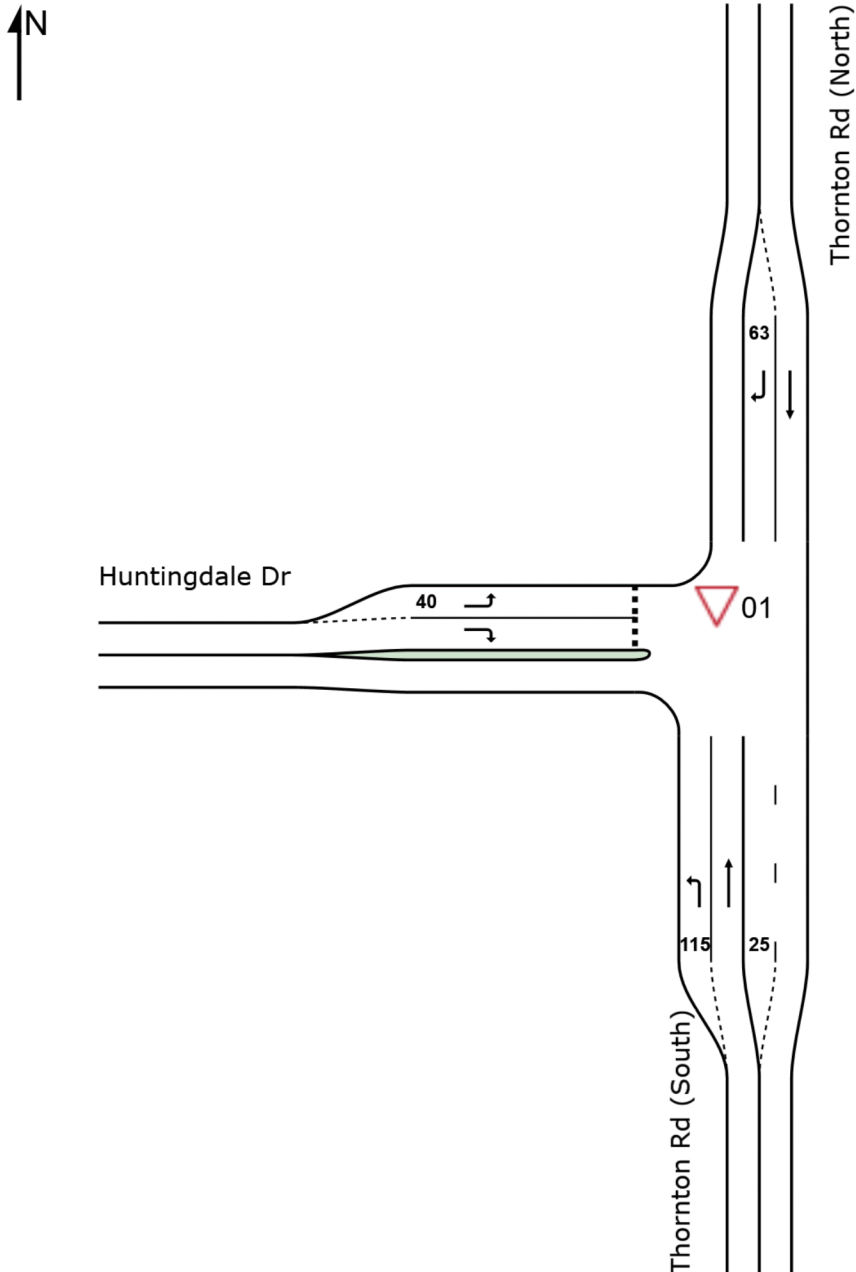
▽ Site: 01 [01 Thornton Rd/Huntingdale Dr AM Ex]

21133

01 Thornton Rd/Huntingdale Dr AM Ex

Site Category: (None)

Giveaway / Yield (Two-Way)



# MOVEMENT SUMMARY

Site: 01 [01 Thornton Rd/Huntingdale Dr AM Ex]

21133

01 Thornton Rd/Huntingdale Dr AM Ex

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South: Thornton Rd (South)												
1	L2	205	4.1	0.114	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.6
2	T1	480	10.5	0.263	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		685	8.6	0.263	1.7	NA	0.0	0.0	0.00	0.17	0.00	57.6
North: Thornton Rd (North)												
8	T1	1107	4.7	0.590	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
9	R2	135	3.9	0.218	10.4	LOS A	0.9	6.2	0.62	0.85	0.63	49.2
Approach		1242	4.6	0.590	1.2	NA	0.9	6.2	0.07	0.09	0.07	58.4
West: Huntingdale Dr												
10	L2	44	33.3	0.074	9.7	LOS A	0.3	2.3	0.52	0.75	0.52	49.0
12	R2	31	13.8	0.094	15.4	LOS B	0.3	2.6	0.70	0.88	0.70	44.7
Approach		75	25.4	0.094	12.0	LOS A	0.3	2.6	0.60	0.80	0.60	47.3
All Vehicles		2002	6.7	0.590	1.8	NA	0.9	6.2	0.06	0.15	0.06	57.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

Site: 01 [01 Thornton Rd/Huntingdale Dr AM Fu]

21133

01 Thornton Rd/Huntingdale Dr AM Fu

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	205	4.1	0.114	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.6
2	T1	480	10.5	0.263	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		685	8.6	0.263	1.7	NA	0.0	0.0	0.00	0.17	0.00	57.6
North: Thornton Rd (North)												
8	T1	1107	4.7	0.590	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
9	R2	140	3.8	0.226	10.5	LOS A	0.9	6.5	0.62	0.85	0.64	49.2
Approach		1247	4.6	0.590	1.3	NA	0.9	6.5	0.07	0.10	0.07	58.3
West: Huntingdale Dr												
10	L2	45	32.6	0.076	9.7	LOS A	0.3	2.3	0.52	0.75	0.52	49.1
12	R2	31	13.8	0.095	15.5	LOS B	0.3	2.6	0.71	0.88	0.71	44.7
Approach		76	25.0	0.095	12.0	LOS A	0.3	2.6	0.60	0.80	0.60	47.3
All Vehicles		2008	6.7	0.590	1.8	NA	0.9	6.5	0.07	0.15	0.07	57.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

Site: 01 [01 Thornton Rd/Huntingdale Dr PM Ex]

21133

01 Thornton Rd/Huntingdale Dr PM Ex

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	27	3.8	0.015	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.6
2	T1	1215	1.8	0.630	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		1242	1.9	0.630	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.6
North: Thornton Rd (North)												
8	T1	740	7.0	0.400	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	48	10.9	0.316	33.0	LOS C	1.0	7.9	0.92	1.00	1.06	37.1
Approach		788	7.2	0.400	2.1	NA	1.0	7.9	0.06	0.06	0.06	57.7
West: Huntingdale Dr												
10	L2	214	2.0	0.825	32.2	LOS C	3.9	27.7	0.96	1.28	2.25	37.7
12	R2	140	2.3	0.701	43.4	LOS D	3.4	24.6	0.96	1.17	1.71	32.2
Approach		354	2.1	0.825	36.6	LOS C	3.9	27.7	0.96	1.24	2.04	35.5
All Vehicles		2384	3.7	0.825	6.2	NA	3.9	27.7	0.16	0.21	0.32	53.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

Site: 01 [01 Thornton Rd/Huntingdale Dr PM Fu]

21133

01 Thornton Rd/Huntingdale Dr PM Fu

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	27	3.8	0.015	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.6
2	T1	1215	1.8	0.630	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		1242	1.9	0.630	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.6
North: Thornton Rd (North)												
8	T1	740	7.0	0.400	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	49	10.6	0.322	33.1	LOS C	1.0	8.0	0.92	1.00	1.06	37.1
Approach		789	7.2	0.400	2.1	NA	1.0	8.0	0.06	0.06	0.07	57.6
West: Huntingdale Dr												
10	L2	219	1.9	0.845	33.9	LOS C	4.2	29.8	0.96	1.32	2.41	37.1
12	R2	140	2.3	0.702	43.5	LOS D	3.5	24.6	0.96	1.17	1.71	32.2
Approach		359	2.1	0.845	37.6	LOS C	4.2	29.8	0.96	1.26	2.13	35.1
All Vehicles		2391	3.7	0.845	6.5	NA	4.2	29.8	0.16	0.22	0.34	53.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# SITE LAYOUT

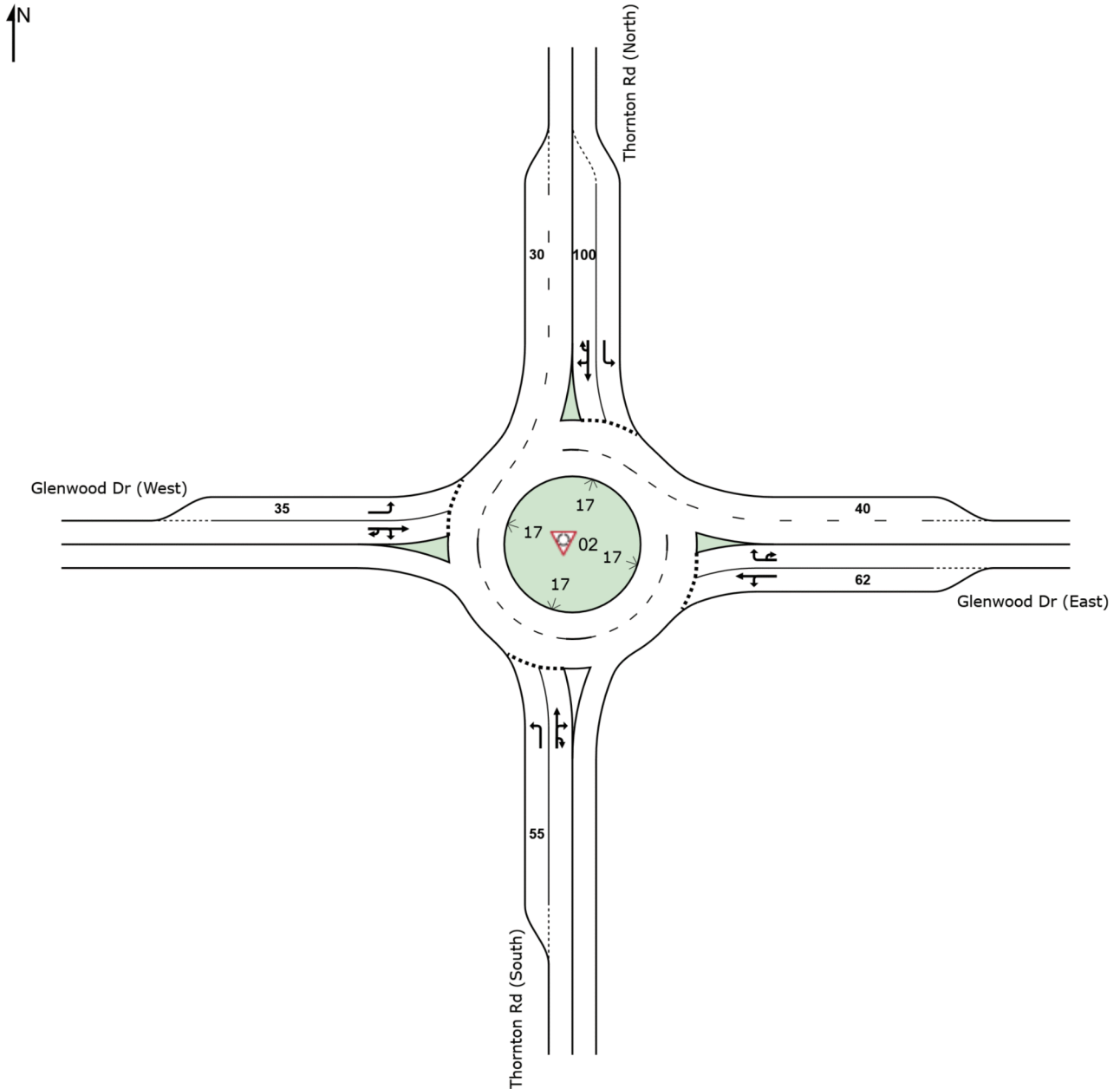
 Site: 02 [02 Thornton Rd / Glenwood Dr AM Ex]

21133

02 Thornton Rd / Glenwood Dr AM Ex

Site Category: (None)

Roundabout



# MOVEMENT SUMMARY

 Site: 02 [02 Thornton Rd / Glenwood Dr AM Ex]

21133  
02 Thornton Rd / Glenwood Dr AM Ex  
Site Category: (None)  
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	104	12.1	0.171	8.2	LOS A	0.7	5.5	0.64	0.82	0.64	50.7
2	T1	126	9.2	0.245	7.2	LOS A	1.2	8.7	0.65	0.77	0.65	51.6
3	R2	72	10.3	0.245	11.6	LOS B	1.2	8.7	0.65	0.77	0.65	47.5
3u	U	1	0.0	0.245	13.2	LOS B	1.2	8.7	0.65	0.77	0.65	51.6
Approach		303	10.4	0.245	8.6	LOS A	1.2	8.7	0.64	0.79	0.64	50.5
East: Glenwood Dr (East)												
4	L2	66	4.8	0.340	6.0	LOS A	1.9	14.6	0.50	0.61	0.50	49.2
5	T1	243	14.7	0.340	6.3	LOS A	1.9	14.6	0.50	0.61	0.50	52.2
6	R2	532	7.7	0.475	10.2	LOS B	3.2	23.9	0.55	0.71	0.55	48.8
6u	U	9	22.2	0.475	12.6	LOS B	3.2	23.9	0.55	0.71	0.55	43.1
Approach		851	9.7	0.475	8.8	LOS A	3.2	23.9	0.53	0.67	0.53	49.7
North: Thornton Rd (North)												
7	L2	913	5.8	0.821	10.7	LOS B	12.6	92.2	0.91	0.93	1.17	47.0
8	T1	180	0.0	0.357	7.3	LOS A	1.9	13.5	0.59	0.72	0.59	52.3
9	R2	62	5.1	0.357	11.8	LOS B	1.9	13.5	0.59	0.72	0.59	52.8
9u	U	2	0.0	0.357	13.6	LOS B	1.9	13.5	0.59	0.72	0.59	53.9
Approach		1157	4.8	0.821	10.2	LOS B	12.6	92.2	0.84	0.88	1.05	48.2
West: Glenwood Dr (West)												
10	L2	28	22.2	0.070	11.5	LOS B	0.3	2.6	0.68	0.79	0.68	49.2
11	T1	186	42.4	0.337	10.2	LOS B	2.0	18.4	0.76	0.85	0.76	45.1
12	R2	23	9.1	0.337	13.3	LOS B	2.0	18.4	0.76	0.85	0.76	50.3
12u	U	3	33.3	0.337	16.3	LOS B	2.0	18.4	0.76	0.85	0.76	51.3
Approach		241	36.7	0.337	10.7	LOS B	2.0	18.4	0.75	0.85	0.75	46.3
All Vehicles		2552	10.1	0.821	9.6	LOS A	12.6	92.2	0.71	0.80	0.80	48.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

 Site: 01 [02 Thornton Rd / Glenwood Dr AM Fu]

21133

02 Thornton Rd / Glenwood Dr AM Fu

Site Category: (None)

Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	113	11.2	0.179	8.1	LOS A	0.8	5.9	0.64	0.82	0.64	50.9
2	T1	126	9.2	0.245	7.2	LOS A	1.2	8.7	0.65	0.77	0.65	51.6
3	R2	72	10.3	0.245	11.6	LOS B	1.2	8.7	0.65	0.77	0.65	47.5
3u	U	1	0.0	0.245	13.2	LOS B	1.2	8.7	0.65	0.77	0.65	51.6
Approach		312	10.1	0.245	8.5	LOS A	1.2	8.7	0.64	0.79	0.64	50.5
East: Glenwood Dr (East)												
4	L2	66	4.8	0.341	6.1	LOS A	1.9	14.7	0.51	0.61	0.51	49.2
5	T1	244	14.7	0.341	6.3	LOS A	1.9	14.7	0.51	0.61	0.51	52.2
6	R2	532	7.7	0.476	10.2	LOS B	3.2	23.9	0.55	0.71	0.55	48.7
6u	U	9	22.2	0.476	12.6	LOS B	3.2	23.9	0.55	0.71	0.55	43.0
Approach		852	9.6	0.476	8.8	LOS A	3.2	23.9	0.53	0.67	0.53	49.7
North: Thornton Rd (North)												
7	L2	913	5.8	0.827	11.0	LOS B	12.9	94.8	0.92	0.95	1.20	46.7
8	T1	180	0.0	0.359	7.4	LOS A	1.9	13.6	0.59	0.73	0.59	52.2
9	R2	62	5.1	0.359	11.8	LOS B	1.9	13.6	0.59	0.73	0.59	52.7
9u	U	2	0.0	0.359	13.7	LOS B	1.9	13.6	0.59	0.73	0.59	53.8
Approach		1157	4.8	0.827	10.5	LOS B	12.9	94.8	0.85	0.90	1.07	48.0
West: Glenwood Dr (West)												
10	L2	28	22.2	0.070	11.5	LOS B	0.3	2.6	0.68	0.79	0.68	49.2
11	T1	193	41.0	0.346	10.2	LOS B	2.0	18.9	0.77	0.86	0.77	45.3
12	R2	24	8.7	0.346	13.3	LOS B	2.0	18.9	0.77	0.86	0.77	50.4
12u	U	3	33.3	0.346	16.3	LOS B	2.0	18.9	0.77	0.86	0.77	51.3
Approach		248	35.6	0.346	10.7	LOS B	2.0	18.9	0.76	0.85	0.76	46.4
All Vehicles		2568	10.0	0.827	9.7	LOS A	12.9	94.8	0.71	0.81	0.81	48.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 Site: 01 [02 Thornton Rd / Glenwood Dr PM Ex]

21133

02 Thornton Rd / Glenwood Dr PM Ex

Site Category: (None)

Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	104	12.1	0.171	8.2	LOS A	0.7	5.5	0.64	0.82	0.64	50.7
2	T1	126	9.2	0.245	7.2	LOS A	1.2	8.7	0.65	0.77	0.65	51.6
3	R2	72	10.3	0.245	11.6	LOS B	1.2	8.7	0.65	0.77	0.65	47.5
3u	U	1	0.0	0.245	13.2	LOS B	1.2	8.7	0.65	0.77	0.65	51.6
Approach		303	10.4	0.245	8.6	LOS A	1.2	8.7	0.64	0.79	0.64	50.5
East: Glenwood Dr (East)												
4	L2	66	4.8	0.340	6.0	LOS A	1.9	14.6	0.50	0.61	0.50	49.2
5	T1	243	14.7	0.340	6.3	LOS A	1.9	14.6	0.50	0.61	0.50	52.2
6	R2	532	7.7	0.475	10.2	LOS B	3.2	23.9	0.55	0.71	0.55	48.8
6u	U	9	22.2	0.475	12.6	LOS B	3.2	23.9	0.55	0.71	0.55	43.1
Approach		851	9.7	0.475	8.8	LOS A	3.2	23.9	0.53	0.67	0.53	49.7
North: Thornton Rd (North)												
7	L2	913	5.8	0.821	10.7	LOS B	12.6	92.2	0.91	0.93	1.17	47.0
8	T1	180	0.0	0.357	7.3	LOS A	1.9	13.5	0.59	0.72	0.59	52.3
9	R2	62	5.1	0.357	11.8	LOS B	1.9	13.5	0.59	0.72	0.59	52.8
9u	U	2	0.0	0.357	13.6	LOS B	1.9	13.5	0.59	0.72	0.59	53.9
Approach		1157	4.8	0.821	10.2	LOS B	12.6	92.2	0.84	0.88	1.05	48.2
West: Glenwood Dr (West)												
10	L2	28	22.2	0.070	11.5	LOS B	0.3	2.6	0.68	0.79	0.68	49.2
11	T1	186	42.4	0.337	10.2	LOS B	2.0	18.4	0.76	0.85	0.76	45.1
12	R2	23	9.1	0.337	13.3	LOS B	2.0	18.4	0.76	0.85	0.76	50.3
12u	U	3	33.3	0.337	16.3	LOS B	2.0	18.4	0.76	0.85	0.76	51.3
Approach		241	36.7	0.337	10.7	LOS B	2.0	18.4	0.75	0.85	0.75	46.3
All Vehicles		2552	10.1	0.821	9.6	LOS A	12.6	92.2	0.71	0.80	0.80	48.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 Site: 01 [02 Thornton Rd / Glenwood Dr PM Fu]

21133

02 Thornton Rd / Glenwood Dr PM Fu

Site Category: (None)

Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Thornton Rd (South)												
1	L2	107	11.8	0.174	8.1	LOS A	0.7	5.7	0.64	0.82	0.64	50.8
2	T1	126	9.2	0.245	7.2	LOS A	1.2	8.7	0.65	0.77	0.65	51.6
3	R2	72	10.3	0.245	11.6	LOS B	1.2	8.7	0.65	0.77	0.65	47.5
3u	U	1	0.0	0.245	13.2	LOS B	1.2	8.7	0.65	0.77	0.65	51.6
Approach		306	10.3	0.245	8.6	LOS A	1.2	8.7	0.64	0.79	0.64	50.5
East: Glenwood Dr (East)												
4	L2	66	4.8	0.341	6.1	LOS A	1.9	14.7	0.51	0.61	0.51	49.2
5	T1	244	14.7	0.341	6.3	LOS A	1.9	14.7	0.51	0.61	0.51	52.2
6	R2	532	7.7	0.476	10.3	LOS B	3.2	23.9	0.55	0.71	0.55	48.7
6u	U	9	22.2	0.476	12.6	LOS B	3.2	23.9	0.55	0.71	0.55	43.0
Approach		852	9.6	0.476	8.8	LOS A	3.2	23.9	0.53	0.67	0.53	49.7
North: Thornton Rd (North)												
7	L2	913	5.8	0.826	11.0	LOS B	12.9	94.4	0.92	0.94	1.20	46.8
8	T1	180	0.0	0.359	7.4	LOS A	1.9	13.6	0.59	0.73	0.59	52.2
9	R2	62	5.1	0.359	11.8	LOS B	1.9	13.6	0.59	0.73	0.59	52.7
9u	U	2	0.0	0.359	13.7	LOS B	1.9	13.6	0.59	0.73	0.59	53.8
Approach		1157	4.8	0.826	10.5	LOS B	12.9	94.4	0.85	0.90	1.07	48.1
West: Glenwood Dr (West)												
10	L2	28	22.2	0.070	11.5	LOS B	0.3	2.6	0.68	0.79	0.68	49.2
11	T1	191	41.4	0.345	10.2	LOS B	2.0	18.9	0.77	0.86	0.77	45.2
12	R2	25	8.3	0.345	13.3	LOS B	2.0	18.9	0.77	0.86	0.77	50.4
12u	U	3	33.3	0.345	16.3	LOS B	2.0	18.9	0.77	0.86	0.77	51.3
Approach		247	35.7	0.345	10.7	LOS B	2.0	18.9	0.76	0.85	0.76	46.4
All Vehicles		2562	10.1	0.826	9.7	LOS A	12.9	94.4	0.71	0.80	0.81	48.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

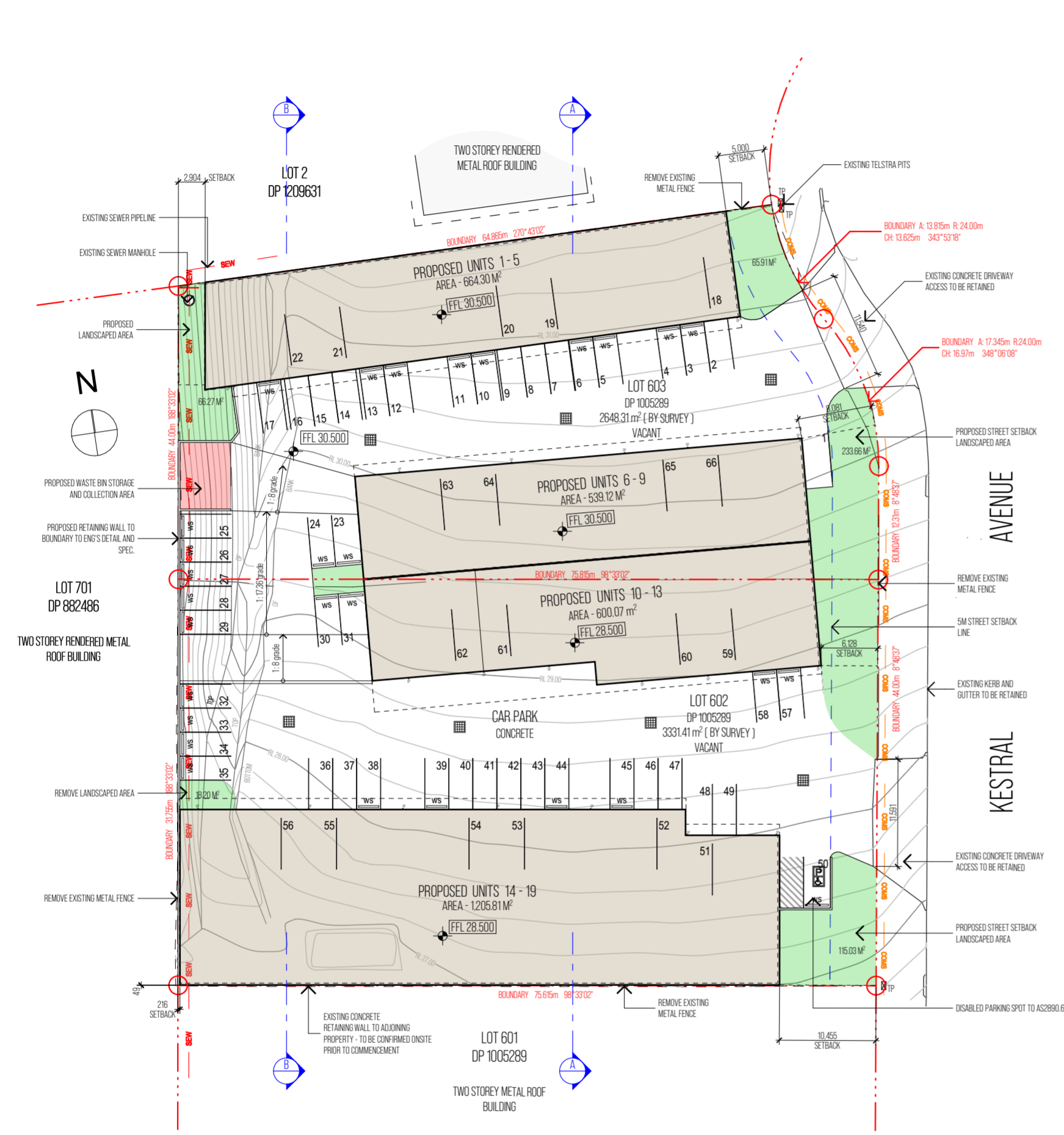
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

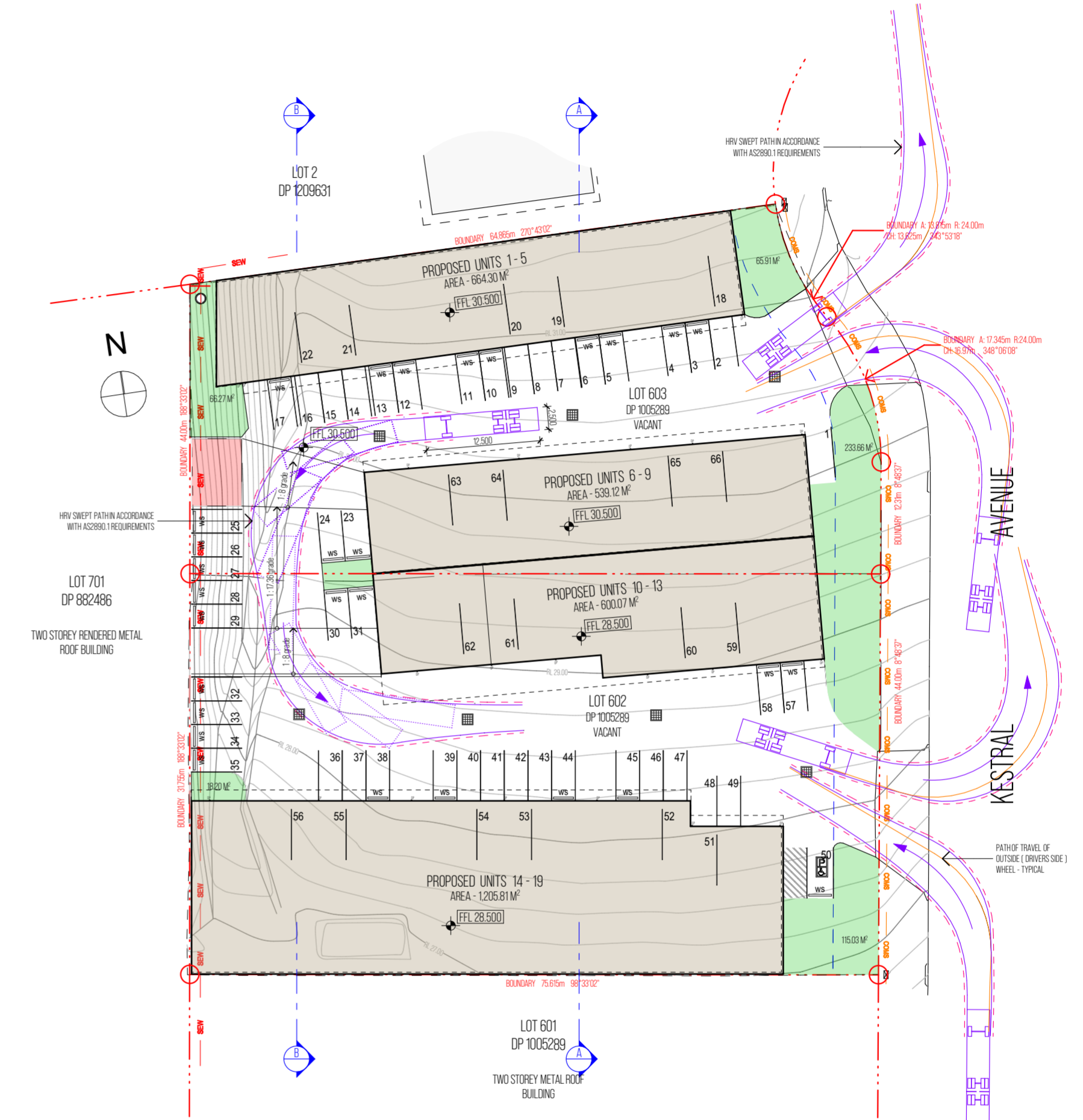
SIDRA INTERSECTION 8.0 | Copyright © 2000-2018 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TEF Consulting | Processed: Tuesday, 28 December 2021 10:50:30 AM

Project: D:\Dropbox\\_\_\_DB current TEF projects\_NR\21133 - 7 Kestrel Avenue, Thornton - Zreicon\21133\_modelling\21133 sidra\21133 - 7 Kestrel Avenue.sip8



1 SITE PLAN 1:500



2 CARPARK + HRV VEHICLE PLAN 1:500



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 NOM. ARCHITECT LAURAN TREVENA 10054

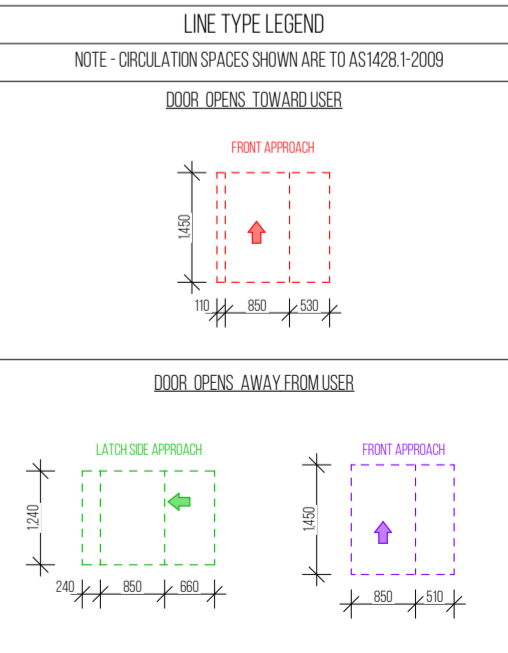
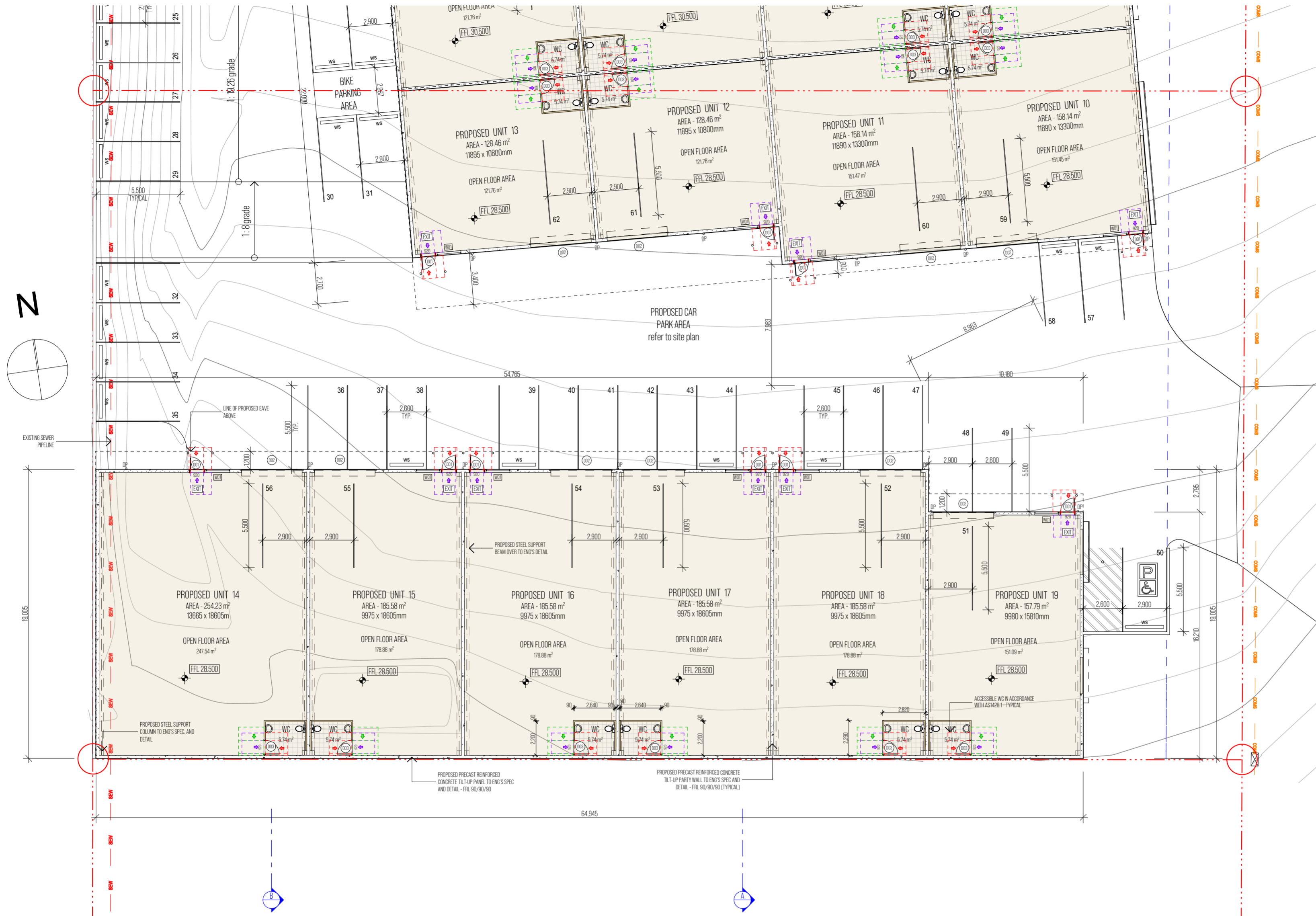
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REV DATE NOTES  
 01 05/09/2021 SCHEMATIC DESIGN - ISSUE A  
 02 11/10/2021 SCHEMATIC DESIGN - ISSUE B

CLIENT  
 LEVANT INVESTMENTS PTY. LTD.  
 LOT 602 & 603 KESTRAL AVE. THORNTON, NSW  
 PROJECT  
 PROPOSED INDUSTRIAL COMPLEX

DRAWING TITLE  
 PROPOSED SITE PLAN + CARPARK PLAN  
 DRAWING STATUS  
 DEVELOPMENT APPLICATION

JOB NUMBER 20.21.16	DRAWN BY CS	SCALE 1:500 @ A2
LAYOUT NO. A / DA03	REVISED BY LT	PRINT DATE 12/11/2021



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REV DATE NOTES  
 01 06/09/2021 SCHEMATIC DESIGN - ISSUE A  
 02 11/10/2021 SCHEMATIC DESIGN - ISSUE B

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 LOT 602 & 603 KESTRAL AVE. THORNTON, NSW

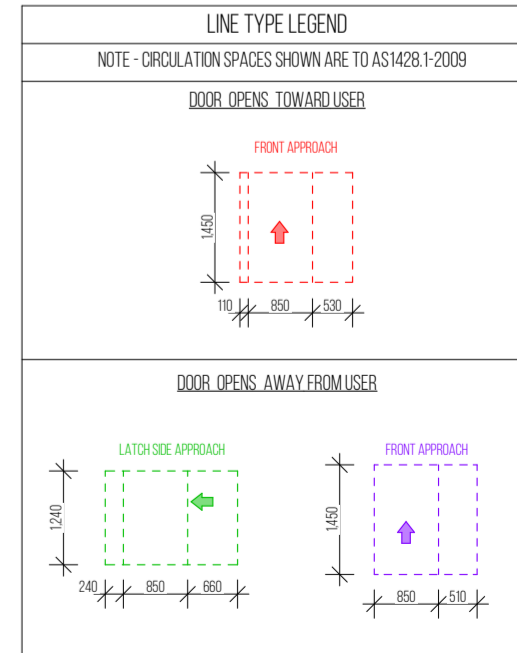
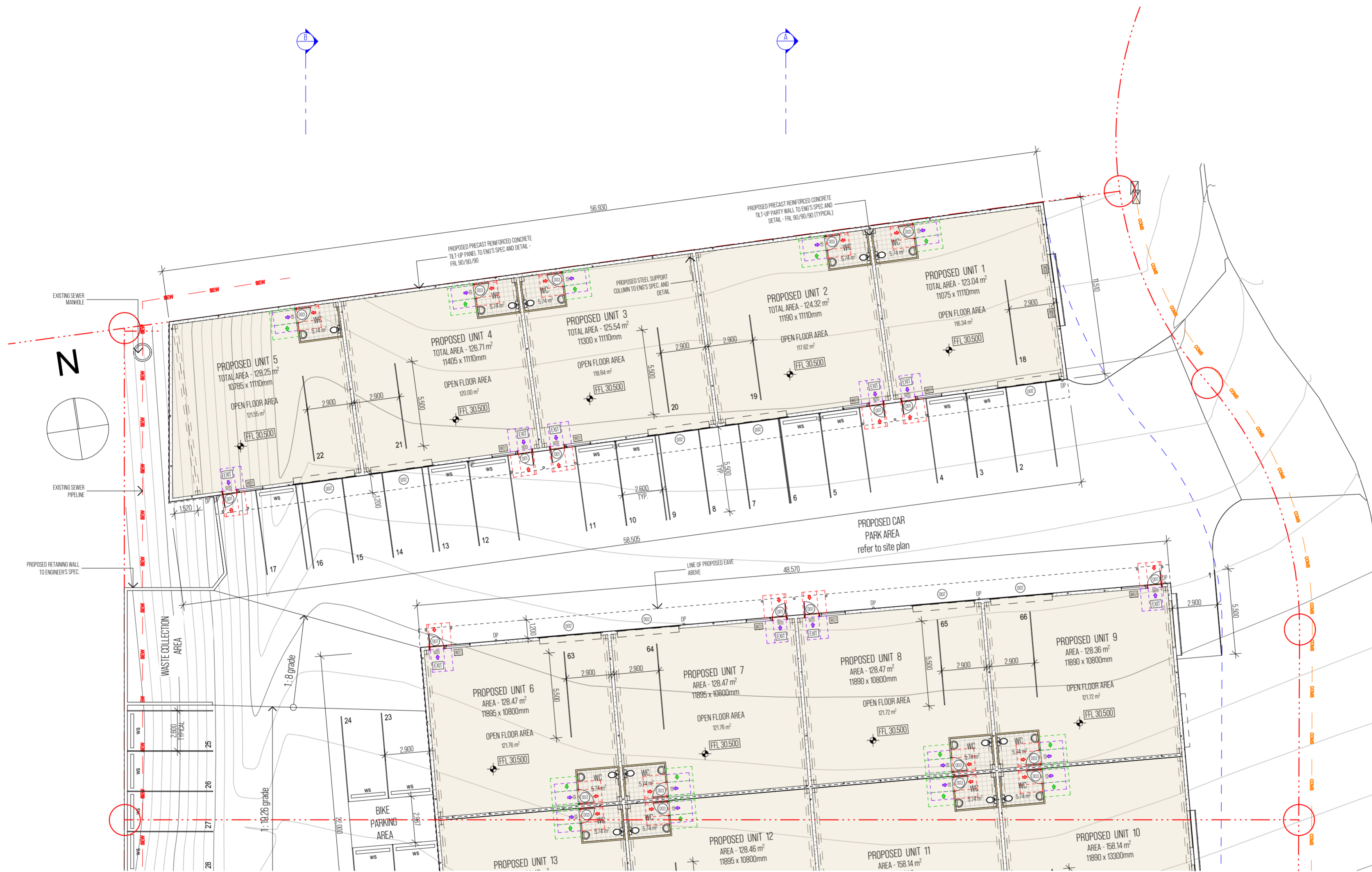
PROJECT  
 PROPOSED INDUSTRIAL COMPLEX

DRAWING TITLE  
 FLOOR PLAN - LOT 602

DRAWING STATUS  
 DEVELOPMENT APPLICATION

JOB NUMBER 2021.16	DRAWN BY CS	SCALE 1:1, 2:200, 1:100 @ A
LAYOUT NO. A / DA04	REVISED BY LT	PRINT DATE 12/11/2021





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REV	DATE	NOTES
01	06/09/2021	SCHEMATIC DESIGN - ISSUE A
02	11/10/2021	SCHEMATIC DESIGN - ISSUE B

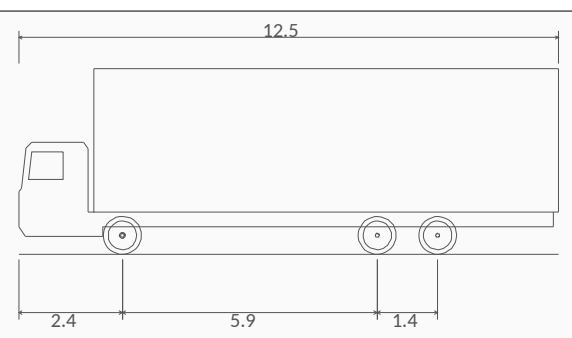
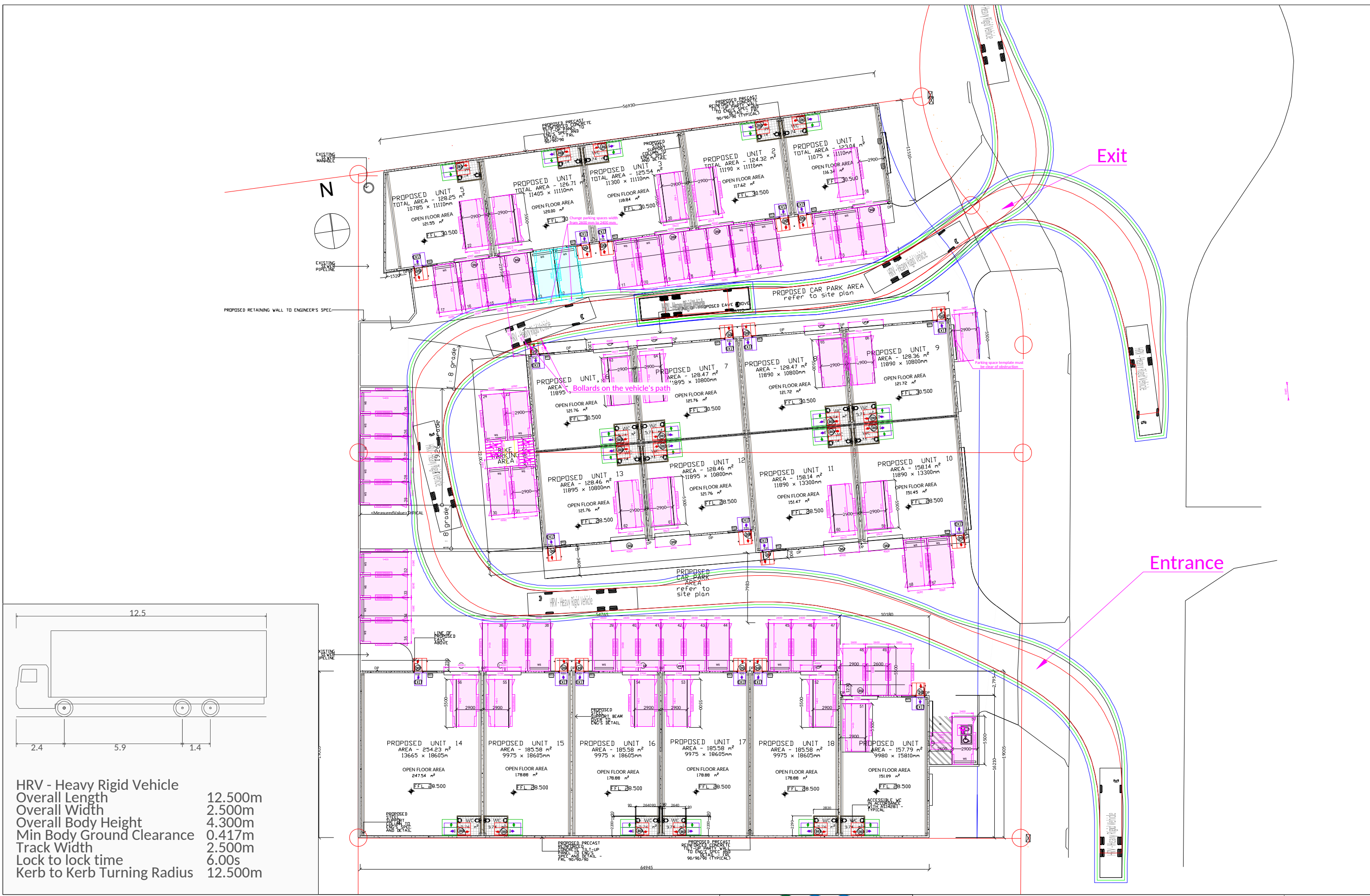
CLIENT  
 LEVANT INVESTMENTS PTY. LTD.  
 LOT 602 & 603 KESTRAL AVE. THORNTON, NSW

PROJECT  
 PROPOSED INDUSTRIAL COMPLEX

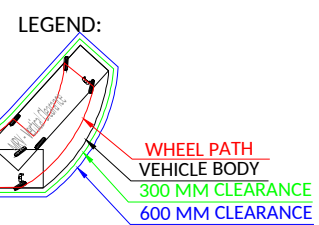
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 FLOOR PLAN - LOT 603

DRAWING STATUS  
 DEVELOPMENT APPLICATION

JOB NUMBER	DRAWN BY	SCALE
20.21.16	CS	1:200, 1:100 @ A2
LAYOUT NO.	REVISED BY	PRINT DATE
A / DA05	LT	12/11/2021



HRV - Heavy Rigid Vehicle  
 Overall Length 12.500m  
 Overall Width 2.500m  
 Overall Body Height 4.300m  
 Min Body Ground Clearance 0.417m  
 Track Width 2.500m  
 Lock to lock time 6.00s  
 Kerb to Kerb Turning Radius 12.500m



Dwg No 21133/01 | Rev. A | 06/01/2022  
 Client: Zreicon

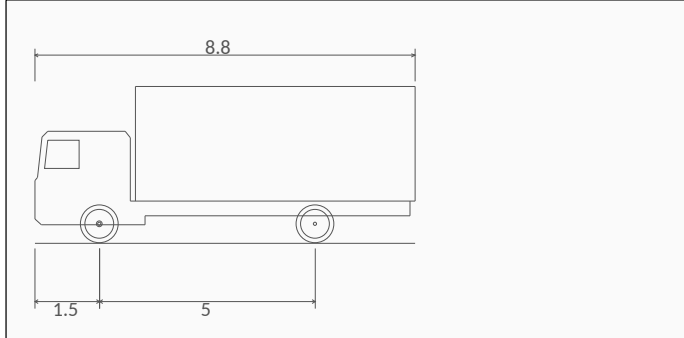
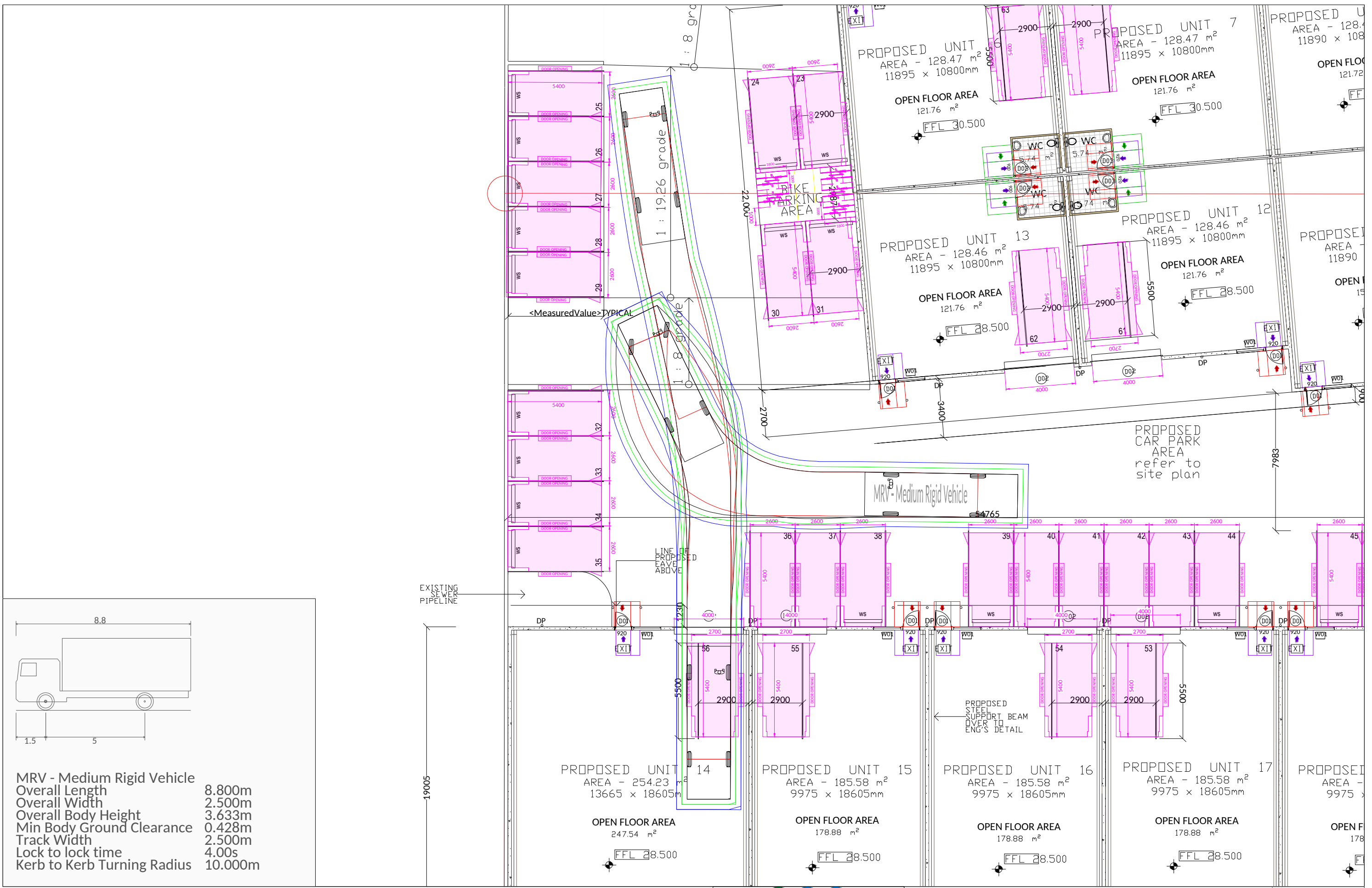
7 Kestrel Avenue, Thornton NSW 2322

Proposed car park layout  
 Design checks as per AS/NZS 2890 series  
 HRV - Heavy rigid vehicle

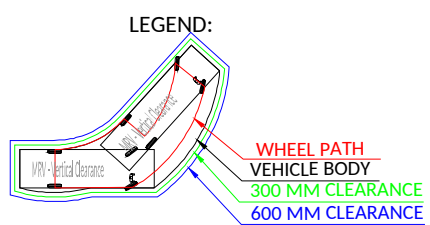
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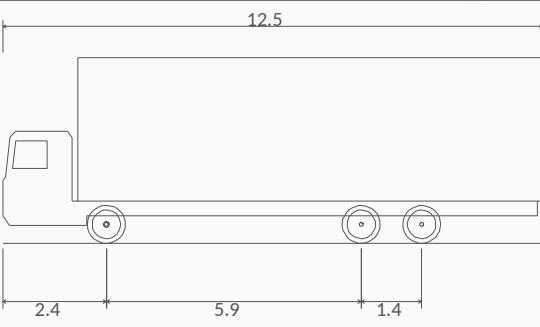
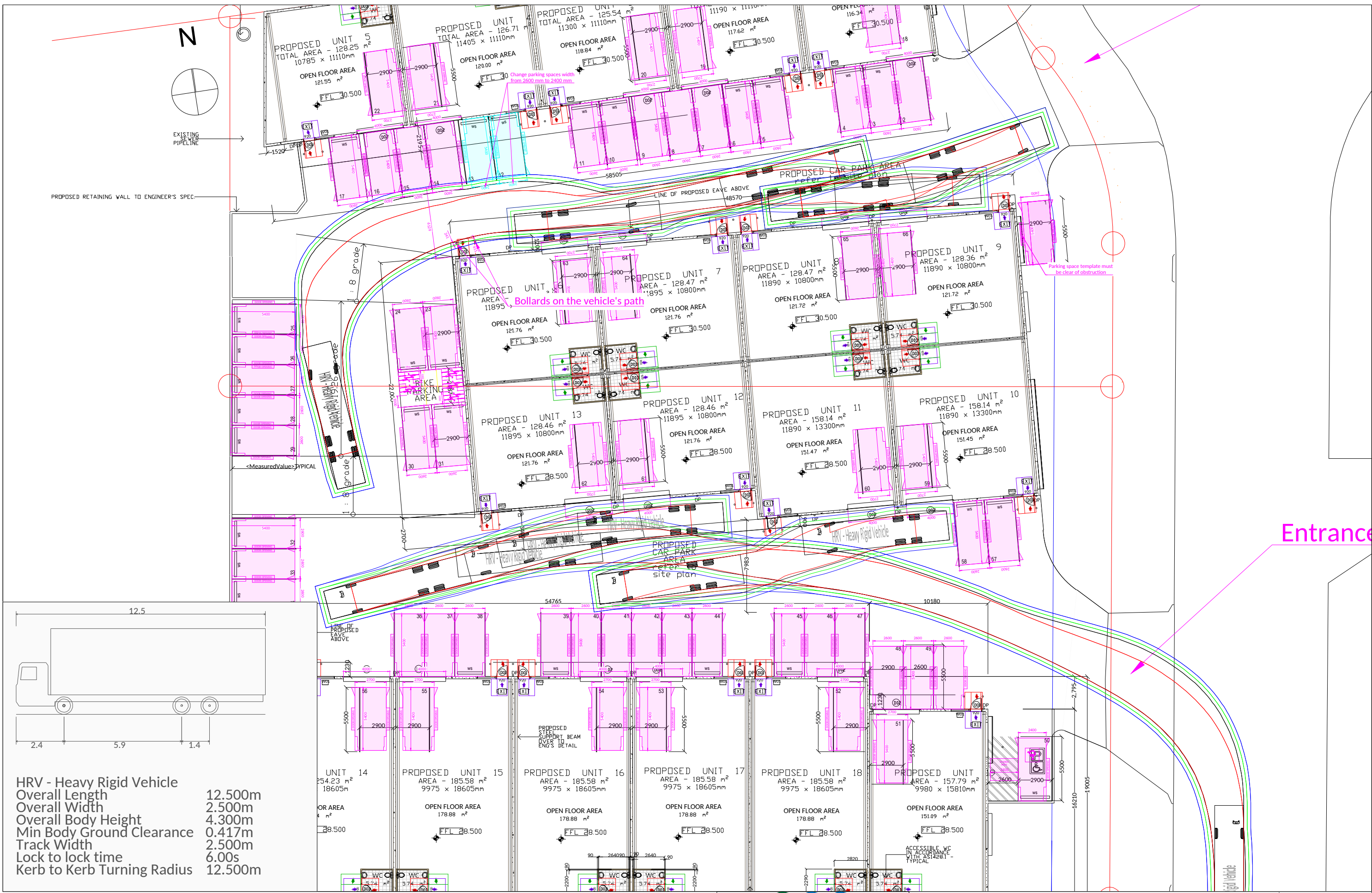


**MRV - Medium Rigid Vehicle**  
 Overall Length 8.800m  
 Overall Width 2.500m  
 Overall Body Height 3.633m  
 Min Body Ground Clearance 0.428m  
 Track Width 2.500m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 10.000m

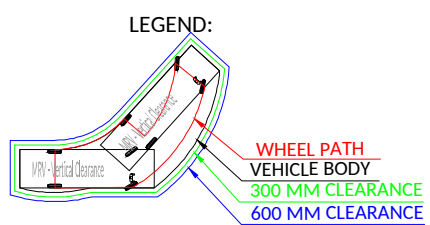


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Dwg No 21133/03	Rev. A	06/01/2022	
Client: Zreicon Proposed car park layout Design checks as per AS/NZS 2890 series MRV - Medium rigid vehicle			
PO Box 215 Bondi NSW 2026   ph:+61 (0)2 9332 2024   fax:+61 (0)2 9332 2022   mob:+61 (0)414 978 067   email: o.s@tefconsult.com.au   www.tefconsult.com.au			





HRV - Heavy Rigid Vehicle  
 Overall Length 12.500m  
 Overall Width 2.500m  
 Overall Body Height 4.300m  
 Min Body Ground Clearance 0.417m  
 Track Width 2.500m  
 Lock to lock time 6.00s  
 Kerb to Kerb Turning Radius 12.500m

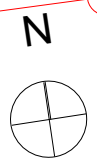
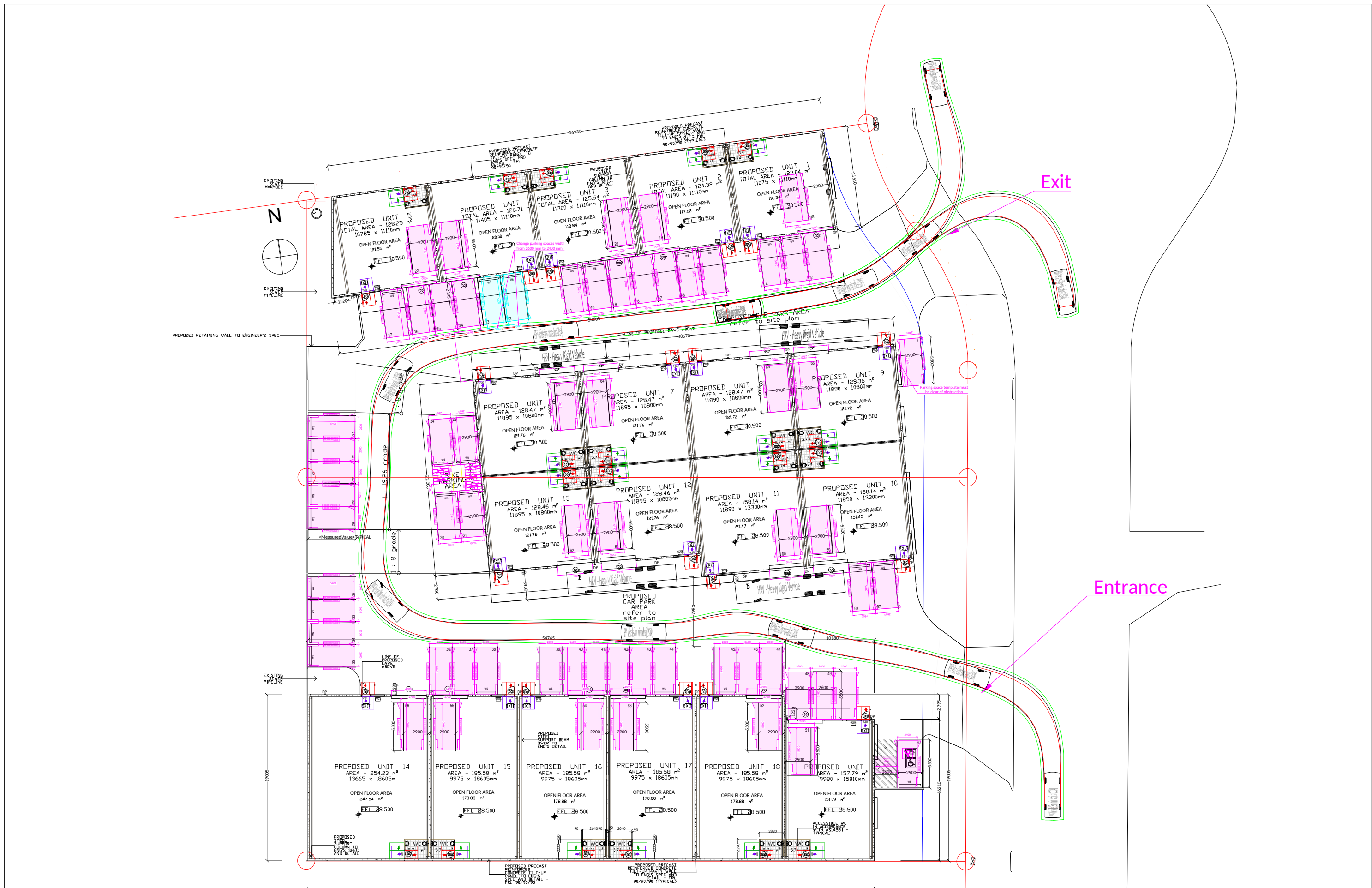


7 Kestrel Avenue, Thornton NSW 2322

SCALE 1:300@A3

Dwg No 21133/04 Rev. A 06/01/2022  
 Client: Zreicon

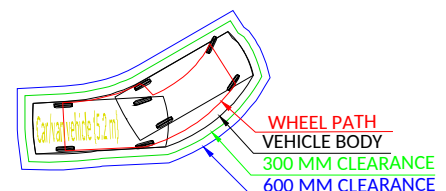
Proposed car park layout  
 Design checks as per AS/NZS 2890 series  
 MRV - Medium rigid vehicle



Exit

Entrance

LEGEND:



7 Kestrel Avenue, Thornton NSW 2322

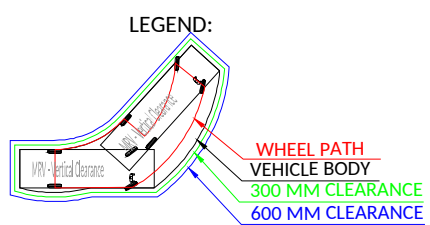
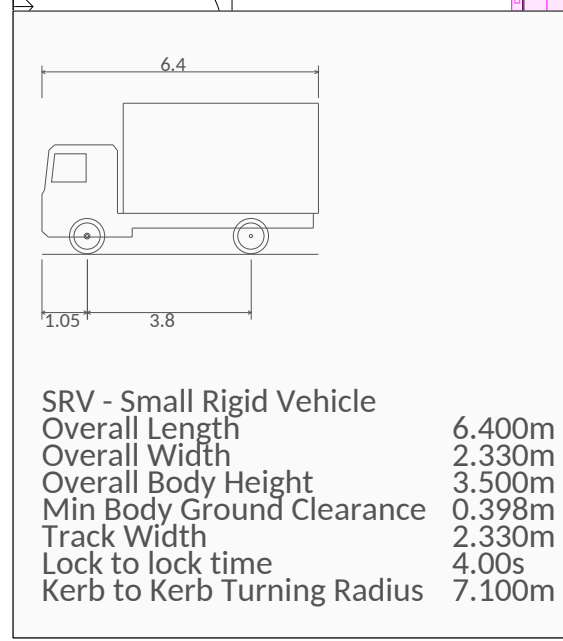
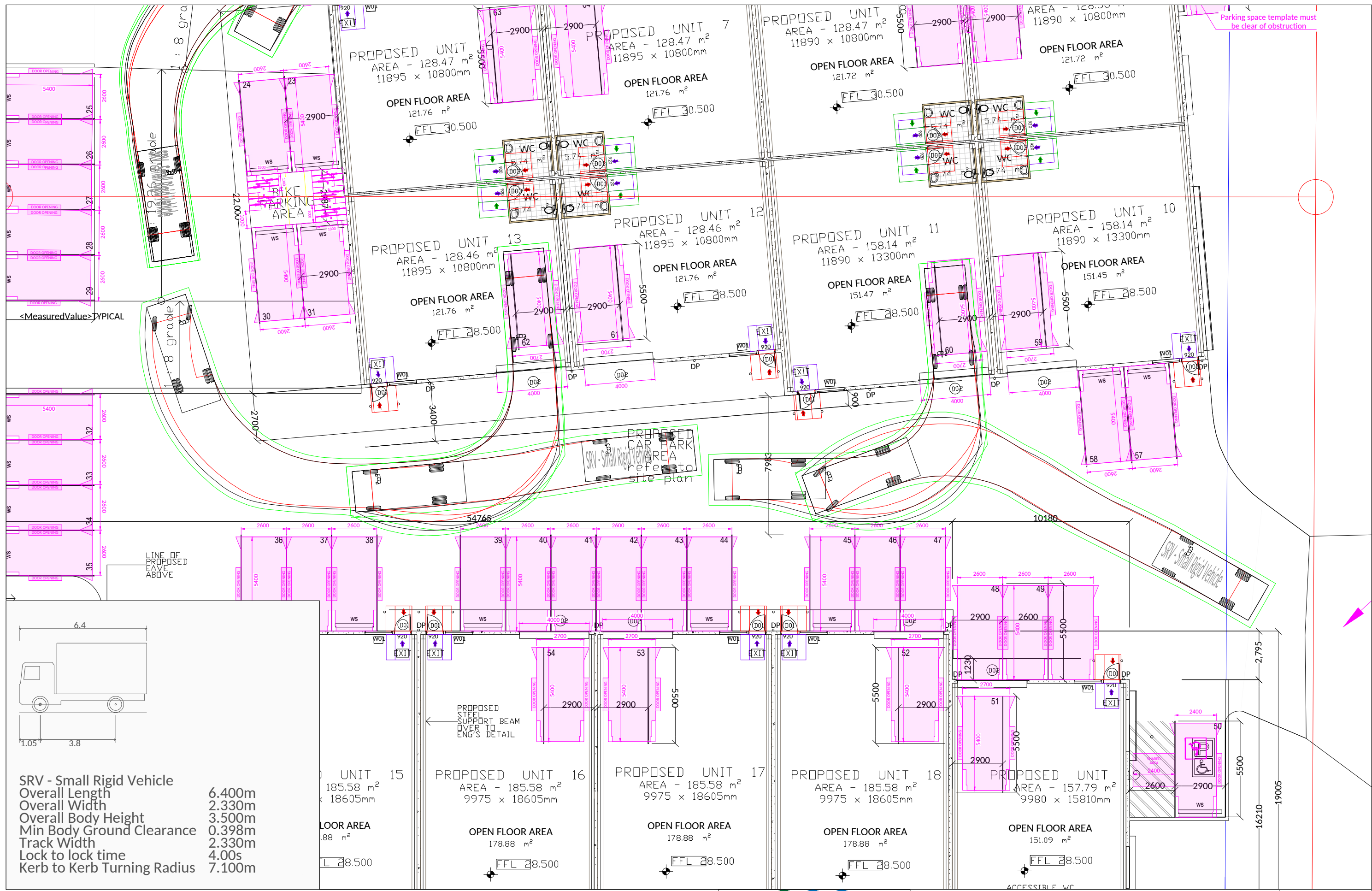
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Dwg No 21133/05 | Rev. A | 06/01/2022  
 Client: Zreicon

Proposed car park layout  
 Design checks as per AS/NZS 2890 series  
 B99 Vehicle

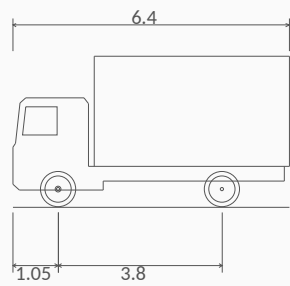
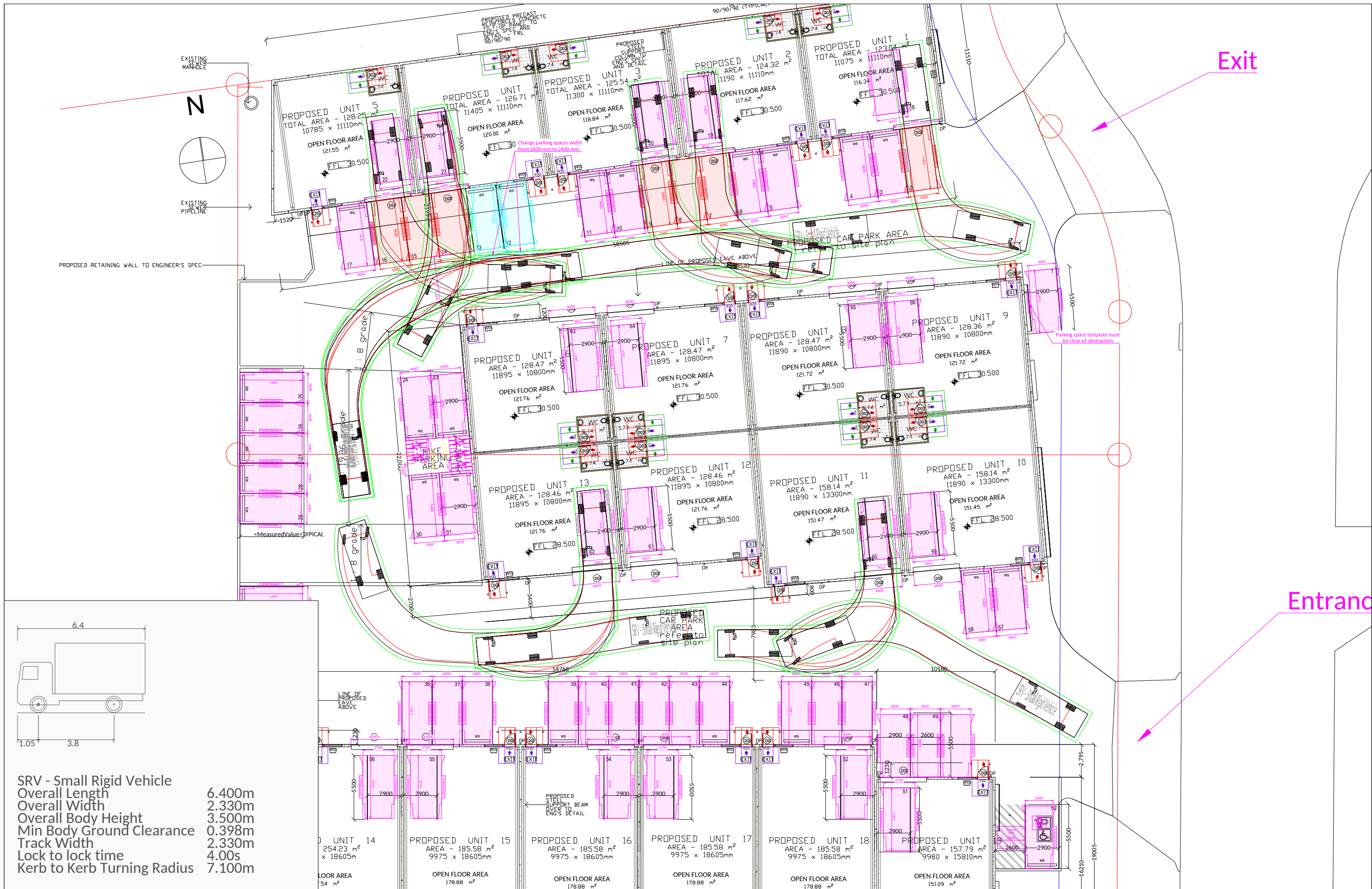
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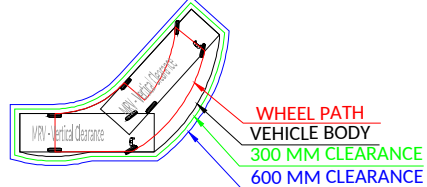
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Dwg No 21133/06	Rev. A	06/01/2022		
Client: Zreicon		Proposed car park layout Design checks as per AS/NZS 2890 series MRV - Medium rigid vehicle		
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SRV - Small Rigid Vehicle  
 Overall Length 6.400m  
 Overall Width 2.330m  
 Overall Body Height 3.500m  
 Min Body Ground Clearance 0.398m  
 Track Width 2.330m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 7.100m

LEGEND:



7 Kestrel Avenue, Thornton NSW 2322

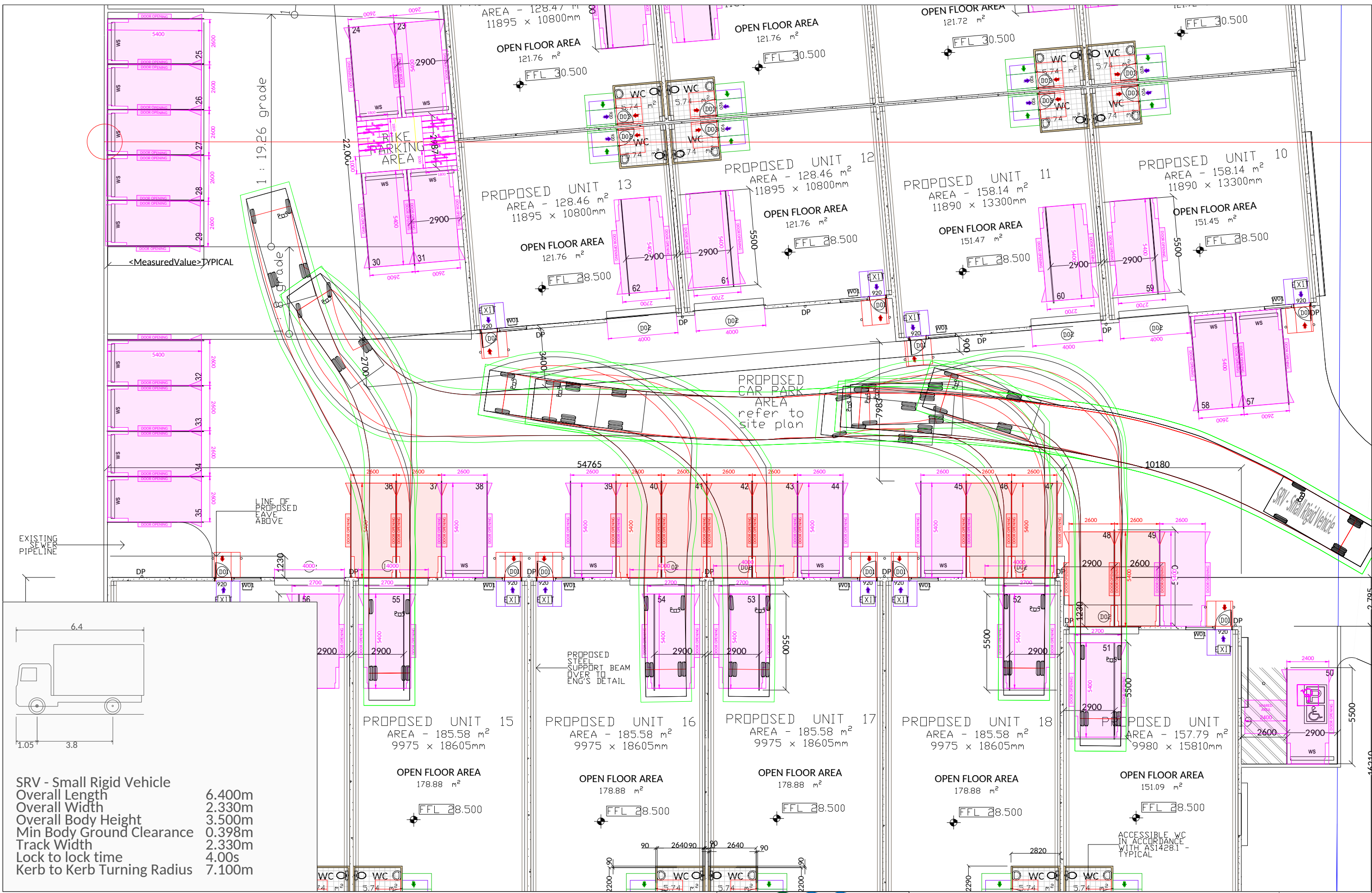
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Dwg No 21133/07 | Rev. A | 06/01/2022  
 Client: Zreicon

Proposed car park layout  
 Design checks as per AS/NZS 2890 series  
 MRV - Medium rigid vehicle







**TEFC CONSULTING**  
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 Dwg No 21133/09 | Rev. A | 06/01/2022  
 Client: Zreicon  
 Proposed car park layout  
 Design checks as per AS/NZS 2890 series  
 SRV - Small rigid vehicle

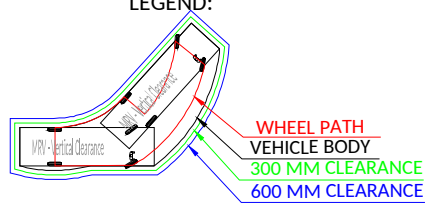
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SCALE 1:200@A3



SRV - Small Rigid Vehicle  
 Overall Length 6.400m  
 Overall Width 2.330m  
 Overall Body Height 3.500m  
 Min Body Ground Clearance 0.398m  
 Track Width 2.330m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 7.100m

LEGEND:



7 Kestrel Avenue, Thornton NSW 2322

SCALE 1:200@A3

Dwg No 21133/10 | Rev. A | 06/01/2022  
 Client: Zreicon

Proposed car park layout  
 Design checks as per AS/NZS 2890 series  
 SRV - Small rigid vehicle