The background image shows a construction site. In the foreground, there is a large, light-colored concrete foundation or wall. In the middle ground, an excavator is visible, and a house is under construction. The scene is set against a backdrop of trees and a clear sky. The entire image is overlaid with a semi-transparent blue filter.

Lake Macquarie Development Control Plan 2014

Part 8 – Subdivision Development

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1 INTRODUCTION

Part 8 – Subdivision Development applies to subdivision development in all zones. It is intended to ensure that subdivision occurs in a manner that supports the intention of the Zone in which it is proposed and achieves orderly development of land and good urban structure outcomes.

This part of LMDCP 2014 does not apply to strata subdivision.

This part of LMDCP 2014 is to be read in conjunction with Part 1 (Introduction), which outlines Council's general requirements for all developments and provides advice on the lodgement requirements for a Development Application.

Additionally, an Area Plan may apply depending on the location of the development. Area Plans contain area specific controls that need to be considered and can be found in Parts 10, 11 and 12 of this DCP.

This part of the LMDCP 2014 divides subdivision into different categories depending on the scale and number of lots.

Minor scale subdivision means subdivision of land creating less than 10 lots.

Medium scale subdivision means subdivision of land creating between 10 and 50 lots.

Major scale subdivision means subdivision of land creating more than 50 lots.

1.1 HOW TO USE THIS PLAN

LMDCP 2014 is the primary document used by Council's development assessment staff to assess development applications. Proponents of development will need to:

1. Determine the land use zone that applies to the development site (refer to LMLEP 2014).
2. Refer to Part 8 of LMDCP 2014 that contains controls subdivision.
3. Check if an Area Plan applies to the proposed development site (Parts 10, 11 or 12).

The development controls contained within each part and section, seek to achieve desired land use, conservation and/or built outcomes consistent with corresponding LMLEP 2014 zone objectives and aims in each part of LMDCP 2014.

Each part of LMDCP 2014 is structured to promote a development application process where the site and context analysis informs the design of the development. This part of the DCP has the following main headings:

- **Introduction** – provides information about the particular part of the DCP, how to use the DCP and aims for development.
- **Context and Setting** – outlines the site issues and environmental opportunities and constraints that need to be addressed in the development application.
- **Subdivision Design** – provides Council's detailed design related requirements.
- **Subdivision Construction** – provides Council's detailed requirements associated with the construction and ongoing operation of the development.

The detailed provisions of each subsection in each part of LMDCP 2014 are presented as follows:

- **Objectives** – state what outcomes Lake Macquarie City Council is seeking new development to achieve, and
- **Controls** – advise the requirements for achieving outcomes and the desired future character identified by the aims and objectives.

Additionally, Part 8 contains specific aims that LMDCP 2014 seeks to achieve. Where specific controls are not provided, these will be used to provide direction for a merits based assessment of a development application.

For more information on how to use this document, please consult Part 1 – Introduction.

1.2 AIMS FOR SUBDIVISION DEVELOPMENT

The aims of LMDCP 2014 for subdivision development are:

1. To ensure that all subdivisions, and the potential impacts of such subdivisions and subsequent development take account of the principles of environmentally sustainable development.
2. To ensure that the subdivision of land balances environmental, social and economic issues, and achieves good urban structure outcomes through increased connectivity, legibility and permeability.
3. To ensure that the road network is efficient and legible through providing a grid or modified grid subdivision pattern. Subdivisions must also integrate closely with surrounding existing and planned future development.
4. To ensure that all proposed lots are provided with an appropriate level of amenity, and are physically capable of development. They must also have access to infrastructure and utility services.

1.3 SUBMISSION REQUIREMENTS

Different scale subdivision proposals require a different level of detail to be submitted to Council. The three scales of subdivision development discussed in this part of LMDCP 2014 include;

- Minor – subdivision creating less than 10 lots.
- Medium – subdivision creating between 10 and 50 lots.
- Major – subdivision creating more than 50 lots.

Schedule 1 of the *Environmental Planning and Assessment Regulation 2000* sets out the minimum submission requirements. This part of Lake Macquarie DCP 2014 outlines Council's requirements for subdivision applications. The following documents may be required to be submitted to Council with an application for subdivision. The detail in these documents will depend on the scale and complexity of the subdivision proposal.

- Site analysis plan and report;
- Structure plan;
- Water Cycle Strategy; and
- Subdivision Plan and report.

Please refer to the *Subdivision Guideline* for further information on the requirements of these documents.

Studies, reports or assessments conducted by suitable qualified consultants are to be submitted with subdivision applications where required by relevant controls contained in this part of LMDCP 2014, LMLEP 2014, or when requested by Council. These may include, but are not limited to:

- Flora and Fauna Assessment, a Species Impact Statement, and a Significance Test where applicable;
- Visual Impact Assessment;
- Land Clearance Plan;
- Bushfire Risk Assessment and Bushfire Management Plan;
- Flood Study;
- Geotechnical Report;
- Preliminary Acid Sulphate Soil Assessment and Management Plan;
- Erosion and Sediment Control Plan when not required as a component of a Soil and Water Management Plan;
- Contamination Assessment;

- Acoustic Assessment;
- Subdivision Waste Management Plan;
- Social Impact Assessment;
- Economic Impact Assessment;
- Heritage Report and/or Aboriginal Archaeology Report,
- Servicing and Infrastructure Plan;
- Water Quality and Stormwater Management Plan;
- Traffic and Transport Study;
- Landscape Plan; and
- Engineering Design Plans for Roads and Drainage.

The stage at which these documents are prepared will be dependent on the scale and complexity of the proposal. Early consultation with Council staff is strongly recommended to help determine what studies and/or reports are required and their detail.

2 CONTEXT AND SETTING

This section of the DCP applies to subdivision in all land use zones under Lake Macquarie LEP 2014.

2.1 SUBDIVISION AND EXISTING DEVELOPMENT

Where subdivision is proposed on a lot which includes an existing development, the following provisions apply.

Objectives

- a. To ensure that the amenity and function of existing development on the parent lot is maintained.

Controls

1. Relevant controls within other parts of this DCP must be considered where subdivision is proposed on a lot containing existing development.
2. Subdivision must not result in the existing development being inconsistent with relevant controls contained in other parts of this DCP.
3. Subdivision must not result in the existing development being left with inadequate waste storage or waste collection location options.

2.2 SITE ANALYSIS

Objectives

- a. To encourage good site planning and landscape outcomes, informed by an understanding of the site and its context.
- b. To ensure that development occurs in an ecologically sustainable manner.
- c. To ensure that potential social, environmental and economic impacts of development are identified early in the planning process.
- d. To inform a design that is energy efficient in terms of site layout, consumption and materials.

Controls

1. A Site Analysis Plan must be submitted. It must identify the existing conditions relating to the subject site and the surrounding land that may influence the site planning process.
2. The Site Analysis Plan must address:
 - i. All relevant items as set out in the *Subdivision Guidelines*; and
 - ii. All relevant matters outlined below in section 2.3 to 2.18.
3. The Site Analysis Plan must provide a comprehensive view of the constraints and opportunities of the development site that will guide the design process.
4. The development application must clearly show that the constraints and opportunities identified in the Site Analysis Plan have been used to inform and resolve the subdivision design.
5. Where development is proposed adjacent to a common boundary shared with Council or another public authority, Council may request a registered surveyor's plan to confirm that development and access arrangements are wholly confined within the subject lot.

Note: The detail of the Site Analysis Plan should be tailored to the site and complexity of the proposed subdivision.

2.3 SCENIC VALUES

The **Landscape Settings and Significant Natural Landscape Features Maps** identify the Landscape Setting boundaries and the relevant Scenic Management Zone for each Landscape Setting. The maps are a guide to the scenic quality associated with lands within the City of Lake Macquarie and are contained within

the *Scenic Management Guidelines*. The *Scenic Management Guidelines* provide supporting documentation to this DCP.

Objectives

- a. To ensure that the scenic values of the City are protected.
- b. To ensure that developments visible or adjoining the coastline, Lake Macquarie or ridgelines maintain and enhance the scenic value of these features.

Controls

1. A landscape and visual impact assessment is required for subdivision development in any zone where:
 - i. The site is within 300m of the mean high water mark of the lake or coast
 - ii. 10 or more lots are proposed,
 - iii. Loss of native tree cover of one hectare or more, or
 - iv. A tree on the significant tree register is proposed to be removed.
2. A landscape and visual impact assessment must be prepared in accordance with section 7.3 of the Scenic Management Guidelines.
3. Developments must be designed and sited to complement their location through:
 - i. the retention of existing vegetation,
 - ii. incorporating appropriate landscaping,
 - iii. minimising cut and fill, and
 - iv. subdivision design and layout being compatible with its natural context.

2.4 GEOTECHNICAL

Objectives

- a. To minimise the potential of damage to buildings/structures resulting from land movement.
- b. To provide guidance on the preparation of geotechnical reports required to support a development application.

Controls

- 1 A Slope Stability Assessment is not required with a development application for subdivision development consisting of:
 - i. 4 or less lots; and
 - ii. Not including any new public road; and
 - iii. Within any of the following LMLEP 2014 zones: Rural and Transition zones, Residential Zones or Environmental Protection zones; and
 - iv. Within a Geo_4, Geo_5 or Geo_6 zone.
- 2 A geotechnical report prepared by a geotechnical engineer must accompany an application for all other development as specified in Council's Geotechnical Slope Stability Guideline. The report must be prepared in accordance with these Guidelines.
- 3 Subdivision type should comply with Table 1 – Slope and Development Suitability.

Note: After lodgement of a Development Application, Council may still require the submission of Geotechnical Report for the development types identified at (1) following a site inspection.

Table 1 - Slope and Development Suitability

Slope	Potential Hazard	Develop. Suitability
<1:20 (0-5%)	Flooding, high shrink swell soils, gravelly soils.	Drainage, stormwater reserve, open space. All types of subdivision
1:20 – 1:10 (5-10%)	Shallow soils, stony/gravel soils, overland flow and poor surface. Profile drainage, deep, swelling, erodable or dispersible soils.	All types of subdivision
1:10 – 1:7 (10-15%)	Overland flow, geological constraints – possibility of mass movement, swelling and erodable soils.	Residential subdivisions for detached housing, multiple dwelling housing, residential flat buildings. Industrial subdivision for smaller footprint modular industrial buildings,
1:7-1:5 (15-20%)	Geological constraints – possibility of mass movement, swelling and erodable soils.	Residential subdivisions for detached housing of a suitable form and construction.
1:5 – 1:4 (20-25%)	Geological constraints – possibility of mass movement, high to very high erosion hazard.	Selective residential subdivision, generally of low density on lots larger than 450m ² and of suitable form and construction
>1:4 (>25%)	Geological constraints – possibility of mass movement, severe erosion hazard.	No type of subdivision is recommended

2.5 MINE SUBSIDENCE

Objectives

- a. To minimise risks to buildings and structures associated with potential mine subsidence.

Controls

1. Where an application is made for the construction of a structure or building within a Mine Subsidence District, written concurrence must be obtained from the Mine Subsidence Board. Written concurrence should be obtained prior to the application being submitted to Council.
2. Written concurrence from the Mine Subsidence Board is not required for certain works that have deemed approval under the Mine Subsidence Board’s publication ‘A Guide for Council Staff’.

Note: Please refer to the Mine Subsidence Board’s ‘Surface Development Guidelines’ for important information.

2.6 CONTAMINATED LAND

Objectives:

- a. To ensure that contaminated land is identified through appropriate investigations
- b. To ensure that contaminated the site is appropriately and effectively remediated prior to development taking place.
- c. To ensure that changes to land use will not increase the risks to public health or the environment as a result of contamination on site, or adjacent properties.

Controls:

1. Where development is proposed on land identified as being potentially contaminated, a Preliminary Site Investigation Report must be prepared and submitted with the application for development. Refer to Council’s Policy for Managing Contaminated or Potentially Contaminated Land for further information.

2. Where contaminants are found within the site, a Detailed Site Investigation Report must be prepared and lodged with the development application.
3. Where a Detailed Site Investigation Report identifies the need for remediation, a Remedial Action Plan must be prepared and submitted with the application.
4. The site must be validated as suitable for its intended use.

Note: At discretion, Council may request an independent third party peer review of a consultant’s report (including but not limited to, the Preliminary Site Investigation Report, Detailed Site Investigation Report, Remedial Action Plan), prior to the commencement of the construction of the development. In some circumstances, these “site audits” must be performed by a site auditor accredited by the NSW Environment Protection Authority under the Contaminated Land Management Act 1997. Further information on site audits can be found in the Managing Land Contamination: Planning Guidelines.

Note: Refer to Resilience and Hazards SEPP and the NSW State Governments ‘*Managing Land Contamination: Planning Guidelines*’ for more information.

2.7 ACID SULFATE SOILS

Objectives

- a. To ensure that disturbance of Acid Sulfate Soils or Potential Acid Sulfate Soils is minimised, to prevent adverse environmental impact on soil conditions.
- b. To ensure that water quality and associated receiving waters are not detrimentally affected by the effects of Acid Sulfate Soils.
- c. To ensure that habitat is not detrimentally affected by the effects of Acid Sulfate Soils.
- d. To ensure that built structures and infrastructure are not detrimentally affected by Acid Sulfate Soils.

Controls

1. Development should be sited or designed to avoid the disturbance of Acid Sulfate Soils or potential Acid Sulfate Soils.
2. Where the disturbance of Acid Sulfate Soils is unavoidable, a Preliminary Acid Sulfate Soil Assessment report must be submitted with the development application, in accordance with the *NSW Acid Sulfate Soils Planning Guidelines*.
3. Where a Preliminary Acid Sulfate Soil Assessment report identifies potential adverse impacts, a detailed assessment report and management plan must be submitted, in accordance with the *NSW Acid Sulfate Soils Planning Guidelines*.
4. Any Acid Sulfate Soils must be identified on the site analysis plan.

Note: Refer to Lake Macquarie Council’s Acid Sulfate Soil planning maps showing classes of land containing potential or actual Acid Sulfate Soils. These maps are available at Council’s Customer Service Centre, Speers Point.

2.8 WATER CYCLE MANAGEMENT

Objectives

- a. To ensure that development does not adversely affect natural flow regimes, water quality or availability, including ground water, and to ensure that water quality is maintained or improved.
- b. To incorporate Water Sensitive Urban Design techniques into subdivision design.
- c. To minimise any adverse impacts of increased development on downstream built or natural environments or nearby land.
- d. To minimise the volume and rate of stormwater leaving a development site.

- e. To reduce consumption of potable water by reducing demand, increasing water efficiency and using non-potable water sources (rainwater, stormwater, greywater, recycled water), as appropriate.
- f. To ensure that natural water systems that contribute to improved water quality (creeks, rivers, wetlands, estuaries, lakes, lagoons, groundwater systems and their associated vegetation) are protected and enhanced.
- g. To integrate water management systems into the landscape in a manner that provides multiple benefits. This should include water quality protection, stormwater retention and detention, public open space and recreational and visual amenity.
- h. To ensure that stormwater and wastewater management and re-use systems operate sustainably, without resulting in environmental harm or risk to public health.

Controls

1. A *Water Cycle Management Plan* must be prepared and submitted. It must detail the management of stormwater and any measures to mitigate the effects of stormwater on adjoining or downstream sites. Refer to Council's *Water Cycle Management Guidelines* and *Protection of Watercourses and Drainage Channels Policy* for further information.
2. The *Water Cycle Management Plan* will identify how the development avoids disturbance of natural watercourses and associated vegetation, and protects the quality of receiving waters.
3. On-site measures must be implemented to maintain water quality, minimise the volume of stormwater run-off and the peak discharge at which stormwater leaves the site.
4. Finished lots should have a minimum 2% fall to the proposed stormwater management system.
5. The elements of the drainage system and stormwater treatment devices are to be designed in accordance with Council's *Water Cycle Management Guidelines* and *Engineering Guidelines*. They should be visually unobtrusive and integrated within individual sites, landscaped areas, roads and open space areas.
6. Subdivision that involves the re-use of stormwater or the use of recycled water must demonstrate compliance with the *Australian Guidelines for Water Recycling*, and the licensing requirements of the *Water Industry Competition Act (2006)*.

2.9 CATCHMENT FLOOD MANAGEMENT

This section applies to land in the various creek catchments in Lake Macquarie City that are within the flood planning area. This section also applies to sensitive use development on land affected by the Probable Maximum Flood.

Information on flood risk and flood planning levels (floor levels) for particular lots can be obtained through the [flood report tool](#) or by applying for a Flood Certificate from Council. Some lots are affected by both catchment flooding and Lake flooding. The development controls that apply to these lots depend on the type of development, and further advice should be sought from Council.

Provisions regarding lake flooding are contained in section 2.10 of this Part of DCP 2014.

Where inconsistencies arise, the controls in area plans prevail over controls in parts 2 to 9 of this DCP.

Objectives

- a. To ensure that new lots are located above the 1 in 100 year flood level.
- b. To ensure that subdivision is sited and designed to minimise potentially adverse impacts of flooding on future development or on other surrounding properties.
- c. To ensure that measures are implemented to reduce the impact of flooding and flood liability on owners and occupiers of flood prone property. They must also reduce private and public losses resulting from flooding and manage risks to property and life from flood events.

Controls

1. Development must be consistent with the current version of the *NSW Floodplain Development Manual*, and any local flood study, floodplain management study or plan applying to the land that has been endorsed by Council.
2. The proposed subdivision must consider and respond to flooding hazards. It must also mitigate risks to life and/or property through design and positioning of development.
3. Subdivision must not result in lots that are located in an identified floodway.
4. Proposed lots must allow future habitable rooms to have a finished floor height at least 500mm above the 100 year probable ARI (1% AEP) event. Where probability flood levels are not available, Council may require a flood study to be undertaken to determine the flood levels. Lesser provisions may be acceptable where the applicant can demonstrate that the type of development or the proposed use poses no significant risk to life or property by flooding.
5. Development on designated flood prone land should incorporate the floodplain risk management measures as recommended by a local flood study, floodplain management study or plan, which identifies and addresses appropriate actions in the event of flooding.
6. Fill is not permitted within core riparian zones, within the Lakefront Development Area or the Foreshore Development Area, or within the extent of the 100 year probable ARI (1% AEP) flood event.
7. Subdivision works on land subject to flooding must use flood compatible materials that will minimise damage by flooding.
8. Flood prone areas and flood hazard zones must be identified on the subdivision Site Analysis Plan.

Note: Refer to Council's *Flood Management Guideline* for further information on the *NSW Floodplain Development Manual*, completed floodplain management plans, and on Council's requirements for flood studies.

2.10 LAKE FLOODING AND TIDAL INUNDATION (INCORPORATING SEA LEVEL RISE)

This section applies to land on and near the Lake Macquarie foreshore that is within the flood planning area. This section also applies to sensitive use developments on land affected by the Probably Maximum Flood.

Information on flood risk and flood planning levels (floor levels) for particular lots can be obtained through the flood report tool or by applying for a Flood Certificate from Council.

Some lots are affected by both catchment flooding and lake flooding. The development controls that apply to these lots depend on the type of development, and further advice should be sought from Council.

Provisions regarding catchment flooding are contained in section 2.9 of this Part of DCP 2014.

Council completed the Lake Macquarie Waterway Flood Study and Risk Management Plan in 2012. This flood study and risk management plan incorporated the implications of predicted sea level rise.

Predicted sea level rise is based on expert advice from NSW Government agencies and expert scientific agencies, namely that projections of sea level rise along the NSW coast are for a rise relative to 1990 mean sea levels of 40cm by 2050 and 90cm by 2100.

The controls contained in this section prevail where there is an inconsistency with other development requirements. This is particularly relevant to cut and fill controls.

Objectives

- a. To avoid the creation of new lots for residential, commercial or industrial development on land covered in the Lake Macquarie Waterway Flood Study and Risk Management Plan 2012.
- b. To ensure that development adequately considers and responds to sea level rise projections and the predicted effects on inundation, flooding, coastal and foreshore recession, and on groundwater levels.

- c. To ensure that development on land vulnerable to sea level rise is situated and designed to minimise the risk from future inundation, flooding, coastal and foreshore recession, and from rises in groundwater levels during the expected life of the development.
- d. To ensure that the development is designed to allow for future adaptation if sea levels rise more than expected, or protective measures are needed in the future.
- e. To ensure that development is sited and designed to minimise potentially adverse impacts of flooding on the proposed development, or on other properties.
- f. To ensure that measures are implemented to reduce the impact of flooding and flood liability on owners and occupiers of flood prone property. Such measures must also reduce private and public losses resulting from flooding, and manage risks to property and life from flood events.

Controls

- 1. In Greenfield subdivision, the creation of new lots for residential, commercial or industrial development must be avoided on land below 3m AHD that is open to inundation from the ocean or lake.
- 2. Council may consider the subdivision of land below 3m AHD where it is in an established urban area and within the R2 Residential zone. Each resulting lot must have a minimum building area of 250m² located above 2m AHD without the need for filling, and must have adequate flood-free access.
- 3. If subdividing land below 3m AHD, all new roads, associated infrastructure and utilities must be located above 3m AHD.
- 4. Except for the conditions described in Control 2, all lots resulting from a subdivision, where part of the site is below 3m AHD must provide a sufficient building area above 3m AHD to accommodate new development appropriate to the zone.
- 5. Subdivision should be designed to mitigate the effects of changes in ecosystems, foreshore processes and flood behaviour, in response to sea level rise.
- 6. Notwithstanding the provisions for Cut and Fill in section 3.26, special consideration may be given to increased fill allowances in areas affected by sea level rise, provided that:
 - i. The additional fill does not adversely affect stormwater management, drainage, or the flow of water from roads, natural or constructed watercourses, foreshore areas or adjoining properties; and
 - ii. The filled area maintains functional connections to adjoining footpaths, roads, neighbouring blocks and other local features.
- 7. Land below 3m AHD must be identified on the site analysis plan.

2.11 NATURAL WATER SYSTEMS

Definition: A **natural water system** is a naturally occurring watercourse, waterway, lake, wetland, lagoon, estuary, and/or other water body.

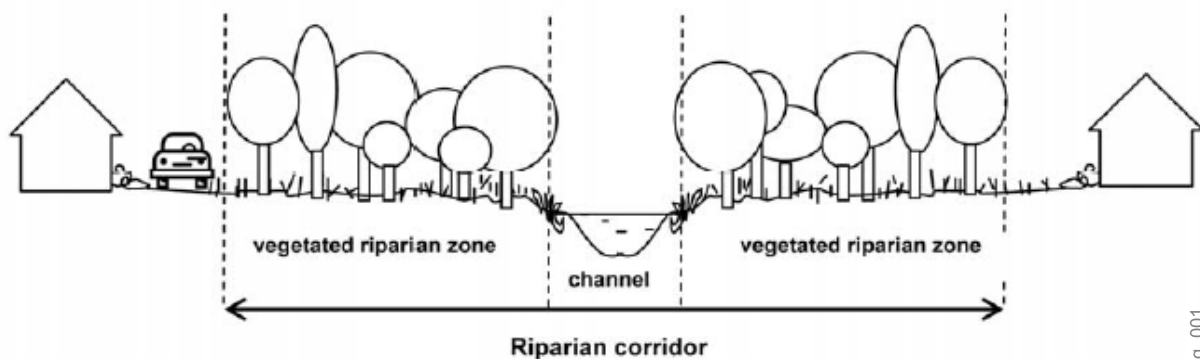
Objectives

- a. To protect and maintain the water regime of natural water systems.
- b. To ensure that development does not adversely affect aquatic fauna.
- c. To ensure that development does not adversely affect water quality or availability, including ground water.
- d. To ensure that watercourses and associated riparian vegetation are maintained to contribute to water quality, and to mitigate sedimentation of the Lake Macquarie waterway.
- e. To ensure that natural water systems and associated vegetation and landforms are protected to improve the ecological processes and ensure that land is adequately buffered from development.

- f. To ensure that the pre-development water quality of receiving waters is maintained or improved.

Controls

1. Natural water systems must be maintained in a natural state, including the maintenance of riparian vegetation and habitat such as fallen debris.
2. Where a development is associated with, or will affect a natural water system, rehabilitation must occur to return that natural water system – as much as possible – to a natural state. The Rehabilitation Plan must be prepared in accordance with Council's *Guidelines for the Preparation of Rehabilitation Plans for Degraded Watercourses or Waterbodies*.
3. Rehabilitation should occur where a development site includes a degraded watercourse, water body, or wetland. Rehabilitation is to be carried out following the completion of a Rehabilitation Plan. This Plan must be prepared in accordance with Council's *Guidelines for the Preparation of Rehabilitation Plans for Degraded Watercourses or Waterbodies*.
4. Stormwater must be managed to minimise nutrient and sediment run-off entering constructed drainage lines, natural watercourses, or waterways.
5. Development within a Vegetated Riparian Zone (VRZ), as shown in Figure 1 – Vegetated Riparian Zones, should be avoided where possible to retain its ecological processes. Where development is unavoidable within the VRZ, it must be demonstrated that potential impacts on water quality, aquatic habitat, and riparian vegetation will be negligible.
6. A Plan of Management must be submitted in accordance with State Government guidelines for development proposed within a VRZ.
7. Asset Protection Zones must not be located within the Vegetated Riparian Zones.



Img_001

Figure 1 - Vegetated Riparian Zones

Types of watercourses	VRZ Width ² (Each side of watercourse)	Total Riparian Corridor Width
Any first order ¹ watercourse	10 metres	20m + channel width
Any second order ¹ watercourse	20 metres	40m + channel width
Any third order ¹ watercourse	30 metres	60m + channel width
Any fourth order ¹ watercourse or greater (includes estuaries, wetlands and any parts of rivers influenced by tidal waters)	40 metres	80m + channel width

¹ As classified under the Strahler System of ordering watercourses.

² Bushfire Asset Protection zones will not be permitted in the Vegetated Riparian Zone. Additional areas may need to be protected to support ecological processes.

2.12 BUSHFIRE

Objectives

- a. To ensure that risks associated with bushfire are appropriately and effectively managed.
- b. To mitigate risks to property and life associated with bushfire hazards.
- c. To ensure that bushfire risk is managed in connection with the preservation of the ecological values of the site and adjoining lands.

Controls

1. Development must comply with the NSW Planning for Bushfire Protection Guidelines
2. Bushfire prone areas and Asset Protection Zones must be identified on the Site Analysis Plan. Refer to Council's Bushfire Prone Land Map.
3. Asset Protection Zones must occur within the development lots.
4. Asset Protection Zones should:
 - i. Be incorporated into the design of the development;
 - ii. Be as low maintenance as possible;
 - iii. Be located outside areas of ecological value and the buffers necessary to protect them.
5. The subdivision plan must provide perimeter roads between the bushfire prone land and development lots.
6. Where subdivision is proposed on environmental zoned land, a development site must be identified that avoids significant vegetation, endangered ecological communities and fauna habitat. The development site must include the required Asset Protection Zones for each lot.
7. Clearing for the purposes of Asset Protection Zones should be avoided on ridgelines and slopes of 1:5 or greater.
8. Clearing of vegetation must be limited to that necessary to meet the NSW Planning for Bushfire Protection Guidelines.
9. Clearing of native vegetation or trees for the purposes of reducing bushfire risk must be consistent with the current Bushfire Risk Management Plan prepared under the *Rural Fires Act 1997*.
10. Designated Asset Protection Zones must be shown on the subdivision plan, along with any other measures to address bushfire risk.

Note: Development Consent is not required for clearing for the purpose of bushfire hazard reduction if the clearing is consistent with the current Bushfire Risk Management Plan, and is undertaken in accordance with a current hazard reduction certificate issued by the Rural Fire Service or other certifying authority.

2.13 FLORA AND FAUNA

Objectives

- a. To avoid and minimise impacts on native flora and fauna.
- b. To protect and enhance significant flora and fauna, vegetation communities and significant habitat on the site, and on surrounding development sites.
- c. To protect and enhance ecological corridors and increase the connections between habitats.
- d. To ensure rehabilitation of degraded areas.

Controls

1. Where the proposed development is likely to have an impact on native vegetation or fauna habitat, or where five or more native trees are proposed to be removed, a Flora and Fauna Assessment must be submitted with the development application, in accordance with Council's Flora and Fauna Survey Guidelines.
2. The flora and fauna assessment must be sufficient to adequately identify and assess all the impacts of the proposed development. This includes cumulative, direct and indirect impacts, as well as the impacts of Asset Protection Zones, the provision of services (water and sewer, etc) and stormwater management.
3. Where a proposed development site is within a vegetation corridor identified on Council's Native Vegetation and Corridors Map, or identified as part of a site-specific flora and fauna assessment, the corridor must be surveyed. Within the survey, the appropriate corridor width must be determined with reference to core habitat areas and potential edge effects and fragmentation. The proposed development should be located and designed to avoid impacts on the identified vegetation corridor. Where this is not possible, the design should aim to minimise impacts.
4. Development should be designed to avoid impacts on native flora and fauna, and minimise any unavoidable impacts. Significant flora and fauna species, vegetation communities and habitat should be protected and enhanced through appropriate site planning, design and construction.
5. A Site Vegetation Plan must be submitted, clearly indicating the location of the proposed development in relation to vegetation communities, significant flora and fauna species and vegetation, and significant habitat and corridors on the site.
6. Native vegetation buffers must be provided between development and areas containing threatened flora and fauna species or their habitat, threatened vegetation communities and native vegetation corridors. The width of the buffer should be determined with reference to the function of the habitat, the threat of sea level rise and the type of development proposed. The buffer should be designed to keep the area of significance in natural condition.
7. A suitable barrier such as a perimeter road should be provided between development, including landscaped areas and native vegetation or significant habitat features, to minimise edge effects.
8. Where development is proposed to impact on an area of native vegetation, it must be demonstrated that no reasonable alternative is available. Suitable ameliorative measures must also be proposed (eg: weed management, rehabilitation, nest boxes).
9. Degraded areas of the development site should be rehabilitated using local native species to establish a self-maintaining ecosystem as close as possible to the natural state.
10. Buildings and structures, roads, driveways, fences, dams, infrastructure, drainage and asset protection zones should be located outside of areas with significant flora and fauna, native vegetation corridors and buffers.

11. An application for removal of native vegetation will only be considered where it is ancillary to and necessary for conducting an approved use of the land (ie: an application for clearing alone will not be supported).
12. Where retention or rehabilitation of native vegetation and/or habitat is required, a vegetation management plan must be prepared in accordance with Council's *Vegetation Management Plan Guidelines*. This must detail how vegetation will be protected, rehabilitated and managed before, during and after construction.
13. Long-term protection and management of areas set aside for ecological reasons is encouraged, through secure tenure with appropriate conservation management. This may be achieved through a Planning Agreement.
14. Development should be consistent with the effective conservation of land within any adjacent Environmental or Waterway zone. Conservation measures should include protection from adverse impacts including, but not limited to weed invasion, erosion and sedimentation, pollution, chemicals, nutrients, stormwater run-off, and feral and domestic animals.
15. The development should include mechanisms to minimise and manage key threatening processes (eg: environmental weeds, domestic dogs and cats).

Note: Council may require a bond to ensure that native vegetation is protected, and that ameliorative measures are undertaken.

2.14 PRESERVATION OF TREES AND VEGETATION

Objectives

- a. To ensure that trees listed on Council's Significant Tree register are not adversely affected by development.
- b. To maintain and enhance the natural bushland or vegetated character of the city.
- c. To retain trees for the urban amenity, microclimate, scenic, air and water quality, and the social benefits that they provide.

Controls

1. Development consent is required to ring bark, cut down, top, lop, remove, injure, wilfully destroy or clear:
 - i. Any species of vegetation that existed in the State of New South Wales before European Settlement;
 - ii. A tree which is listed in Council's Significant Tree Register;
 - iii. Tree(s) or native vegetation listed as heritage items or located within a Heritage Conservation Area; or
 - iv. A Norfolk Island Pine Tree (*Araucaria heterophylla*) that is greater than three metres in height, or that has a trunk diameter of 75mm or greater, measured at ground level.

Note: This clause includes Native Vegetation defined in the *Native Vegetation Act 2003* and marine vegetation covered by section 205 of the *Fisheries Management Act 1994*.

2. Except in the C2 Zone, development consent is not required to remove, injure, wilfully destroy or clear native vegetation (excluding native trees and shrubs over 3m in height), only if:
 - i. The work is for the purpose of landscaping understorey vegetation and lawn areas where the area to be cleared is less than 600m² (in total), and is on the same allotment as, and within the curtilage of an approved dwelling;
 - ii. The soil surface exposed in any period of 90 consecutive days is less than 250m²;
 - iii. The slope of the land is less than 15 degrees;

- iv. The area is not subject to a development consent that requires the native vegetation to be retained; and
 - v. The work does not involve the disturbance of habitat for threatened species.
3. Development consent is not required to ring bark, cut down top, lop, remove, injure, wilfully destroy or clear a tree or native vegetation, if:
- i. The tree is not listed on Council's Significant Tree Register or as Heritage Item or is located within a heritage conservation area, and
 - ii. The tree or native vegetation is not required to be retained by a development consent, and
 - iii. The tree or native vegetation is within five metres of the outermost projection of a lawfully used building (that is not exempt or complying development) and is on the same allotment as the building, or
 - iv. The tree or native vegetation is within one metre of a sealed driveway to a lawfully used building (that is not exempt or complying development) and is on the same allotment as the building, or
 - v. The tree or native vegetation is within five metres of the outermost projection of a lawfully used building (that is not exempt or complying development) on an adjoining allotment as the building and owners of both properties reach a written agreement before removal occurs.

Note: For the purposes of clause 3 the distance must be measured from the trunk of a tree or shrub measured at ground level to the outer most projection of the building.

Note: A sealed driveway is a driveway or car park with an impervious surface such as concrete, pavers, or bitumen. A gravel driveway is not classed as a sealed driveway.

Note: A lawfully used building does not include drainage, excavation, a garden shed or jetty, but does include an underground water storage structure or septic tank.

4. Development consent is not required for removal of a tree or native vegetation if Council is satisfied beforehand that the tree or native vegetation:
- i. Is dead and is not required as habitat for native fauna or
 - ii. Is a risk to life or property.

Note: Evidence to support removal should be forwarded to Council in accordance with requirements outlined in Council's *Tree Preservation and Native Vegetation Management Guidelines*. Council's Tree Assessment Officer may undertake a site inspection to verify that these conditions are satisfied.

Note: Habitat required for native fauna includes native vegetation and trees (including dead or dying trees) support hollows, spouts, splits, nests and roosts.

5. Development consent is not required for removal of a tree or native vegetation if:
- i. The tree or native vegetation is in danger of imminent failure and there is risk to life or property; and
 - ii. The tree is not listed on Council's Significant Tree Register or as Heritage Item or is located within a heritage conservation area, and
 - iii. Evidence to support its removal is forwarded to Council following the removal, in accordance with Council's *Tree Preservation and Native Vegetation Management Guidelines*.
6. Development consent is not required for removal of a NSW native tree if the tree is:
- i. not listed on Council's Significant Tree Register or as Heritage Item or is located within a heritage conservation area, and
 - ii. not located within other native vegetation and,
 - iii. less than three metres in height and
 - iv. has a trunk diameter at ground level of less than 75mm.

7. An application for removal of tree(s) and native vegetation will be considered only where it is necessary for conducting an approved use of the land. An application for clearing alone will not be supported.
8. A report from a suitably qualified arborist must be submitted to support:
 - i. Any application that may have an impact on a tree listed in Council's Significant Tree Register, or on tree(s) or native vegetation listed as heritage items or located within a heritage conservation area;
 - ii. Any request to review Council's determination of an application for tree pruning or removal; or
 - iii. Any application that Council determines may cause significant impacts on native trees or native vegetation.
9. An arborist report must include a plan to scale that clearly shows:
 - i. The location of the proposed development;
 - ii. The location, diameter, canopy spread, condition and species of each tree on the site;
 - iii. All trees to be removed;
 - iv. All trees to be retained;
 - v. All trees with habitat hollows;
 - vi. Tree protection zones for all trees to be retained; and
 - vii. Any asset protection zones.
10. Habitat trees must be assessed by a suitably qualified flora and fauna specialist.
11. Measures must be implemented to protect native vegetation and trees to be retained during construction works. Such protection measures must be specified in the development application, and should be compiled in accordance with Council's *Tree Preservation and Native Vegetation Management Guidelines*.
12. Where habitat trees are removed, measures (such as nest boxes) must be implemented to mitigate against injury or loss of native fauna and habitat. Such measures must be specified in the development application.
13. Boundary fences must be located, designed and constructed to avoid removing or damaging native trees that have a diameter of 200mm or greater, measured at ground level.

Note: Refer to Council's *Tree Preservation and Native Vegetation Management Guidelines* for further details and the Significant Tree Register.

2.15 EUROPEAN HERITAGE

Objectives

- a. To protect and maintain European heritage items and their facades.
- b. To retain, preserve and promote the adaptive re-use of heritage-listed buildings and contributory buildings in particular, and other buildings that contribute to the heritage character of the locality.
- c. To appropriately manage demolition of items of heritage significance, when all other alternatives to demolition have been fully investigated.
- d. To ensure that development is sympathetic to heritage items and contributory buildings.

Controls

1. A Heritage Assessment and Statement of Heritage Impact must be submitted to Council where a proposed development:
 - i. incorporates, or is adjacent to an item of heritage significance;

- ii. is located within a heritage conservation area, or,
- iii. has been identified by Council to have particular circumstances that warrant it.

Note: Council officers will use the following criteria to determine the need for Heritage Assessment and Statement of Heritage Impact is required under control 1(iii) above:

- ☐ The subject site includes a building erected prior to 1950 whether or not it is identified as being of a particular architectural style,
 - ☐ The development is considered in conflict with its heritage context, streetscape, or heritage precinct,
 - ☐ The subject site includes a potential heritage item.
2. The impact of development on an item of heritage significance must be minimised by:
 - i. Restricting the extent of development to that which is necessary;
 - ii. Conserving what is significant about the item;
 - iii. Clearly differentiating new development from the existing significant fabric;
 - iv. Ensuring that development is of a scale, form, mass, proportion and finish that is sympathetic with the heritage item; and
 - v. Ensuring that development is sufficiently separated from the heritage item, so as not to compromise the existing level of visibility.
 3. For development involving demolition of an item of heritage significance, a heritage assessment and Statement of Heritage Impact must be prepared and lodged. It must verify that all alternative options to demolition have been fully investigated, and demonstrate the replacement building's compatibility with the physical context. The Statement of Heritage Impact must include details of the:
 - i. Structural condition;
 - ii. Overall extent of the remaining fabric;
 - iii. Potential retention and adaptive reuse; and
 - iv. Comparative costings.
 4. Where demolition of the whole of a heritage item is proposed, approval must be sought concurrently for the replacement building.
 5. Alterations and additions to items of heritage significance must where possible:
 - i. Occur at the rear of the building;
 - ii. Maintain the established building line;
 - iii. Maintain an existing driveway access to the rear of the property;
 - iv. Incorporate or retain elements such as chimneys, windows and gables;
 - v. Maintain established patterns of buildings and garden; and
 - vi. Not overwhelm or dominate the existing building.
 6. Alterations and additions to items of heritage significance must be recognisable, on inspection, as new work. They must not mimic the design, materials or historic details of the heritage item.
 7. Garages, sheds, carports, external utilitarian structures and the like must be detached and located at the rear, or set back at least two metres behind the heritage item.

2.16 ABORIGINAL HERITAGE

Objectives:

- a. To protect and conserve Aboriginal cultural, spiritual, and sacred sites within the City.
- b. To ensure the impact of a proposed development on the heritage significance of an Aboriginal place or object is considered by adequate investigation and assessment.

Controls:

1. Where a development will disturb the ground surface and the natural ground surface has not been significantly disturbed, the development application must demonstrate that adequate due diligence has been undertaken. This includes (but is not limited to) submitting the following documentation in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. This includes submitting the following documentation:
 - i) A statement and results of a basic 200m Aboriginal Heritage Information Management System (AHIMS) search. Where a site is identified within 200m of the development site, a statement and results of a 50m AHIMS search must be included.
 - ii) Identify whether the development site is partially or wholly within the Sensitive Aboriginal Landscape map under the LMLEP2014 and whether the exemptions under the Excluded Development Criteria (Table 2) apply
 - iii) A statement indicating whether there are landscape features that indicate the potential presence of Aboriginal objects.

Note: landscape features include: foreshore areas, creek lines, rocky areas, wetlands, ridge tops, ridgelines, headlands, sand dunes, caves.

2. A Due Diligence Assessment must be prepared by a suitably qualified person to determine whether the proposed development is likely to harm Aboriginal objects and identify whether an Aboriginal Heritage Impact Permit is required where:
 - i) An AHIMS search has identified the likelihood of an Aboriginal item within 200m of the development site, and/or
 - ii) The site is identified on the Sensitive Aboriginal Landscape map and the Excluded Development Criteria do not apply.
3. The Due Diligence Assessment must include an assessment of the cultural significance of the place to the Aboriginal Community.

Note: Clause 5.10(8) – Heritage Conservation of the LMLEP 2014 and the Lake Macquarie Aboriginal Heritage Management Strategy requires assessments to be forwarded to the Local Aboriginal Land Council for comment for a 28 day period.

4. An Aboriginal Cultural Heritage Assessment Report should be prepared where:
 - i) A Due Diligence assessment has identified the potential for the site to contain an Aboriginal object or contains a place of significance, or
 - ii) The development will have an impact on a known Aboriginal object or place.

Table 2 - Excluded Development Criteria for Development in Sensitive Aboriginal Landscape Map

Excluded Development	Land on which excluded development may not be carried out
All development on sites having a combined/total area less than 800m ²	<p>Within 200m of an AHIMS site</p> <p>Setback from DP High Water mark does not exceed 50m.</p>
<p>Exempt development under the SEPP (Exempt and Complying Development Codes) 2008 on sites having a total area greater than 800m² subject to:</p> <ul style="list-style-type: none"> ☐ 75% of combined/total site area already disturbed; or ☐ Works do not exceed existing disturbed footprint; or ☐ Site has previously been assessed for Aboriginal heritage such as subdivision applications post 1997 development consent. 	

Note: The SEPP (Exempt and Complying Development Codes) 2008 does not apply to land within the Sensitive Aboriginal Landscape area. However, exempt development within this SEPP may not require further Aboriginal assessment if it fulfills the requirements of the Excluded Development Criteria Table.

5. Where required, the Aboriginal Heritage Impact Statement must be prepared in accordance with the Lake Macquarie Aboriginal Heritage Management Strategy and the Office of Environment and Heritage *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*, which includes consultation with the Aboriginal community.
6. Where a proposal seeks to destroy, remove or impact on an Aboriginal object, any development should be Integrated Development and will also require a permit from the Office of Environment and Heritage.

2.17 NATURAL HERITAGE

Objectives

- a. To ensure the protection of items of natural heritage significance.
- b. To ensure that insect fossil beds and fossilised trees are maintained, along with features of scientific interest in their natural state.
- c. To facilitate public appreciation and scientific investigation of insect fossil beds and geological features of scientific interest, without destruction or damage.

Controls

1. Where development is proposed on land within 50 metres of an item of natural heritage significance identified in the Lake Macquarie Local Environmental Plan 2014, a Heritage Impact Assessment must be prepared in accordance with the Natural Heritage Guidelines.

2. The likely impact of development proposals on the insect fossil beds and geological features of scientific interest should be identified through a report by a palaeontologist or geologist, which establishes the significance of the site. Such a report should include management strategies before, during, and after construction.
3. The development should be designed to avoid natural heritage items.
4. Where it is not reasonable to avoid natural heritage items, the item must be protected and incorporated into the design. Reasonable access to the construction site and any excavated material should be provided to researchers and/or palaeontologists from the Australian Museum or other research institution.
5. Any natural heritage items extracted should be fully documented and catalogued prior to being forwarded to the Australian Museum. Documentation and cataloguing must be undertaken to museum standards.

2.18 SOCIAL IMPACT

Council has a statutory obligation under the provisions of Section 4.15 of the *Environmental Planning and Assessment Act 1979* to consider the social impact of a proposal when assessing a specific development application.

Social Impact Assessment focuses on the human dimension of a locality. It seeks to address the question “what will be the impact of a project/development on people and facilities they use?” and to anticipate outcomes that may flow from a proposed development which are likely to affect people’s way of life, their culture and/or their community.

Social Impact Assessment is not a tool to stop development, but is to assist in the assessment of development proposals so that the best development results.

Objectives

- a. To ensure that development takes into consideration the likely social impacts that may arise because of the development.
- b. To ensure that development considers the availability of adequate services and facilities to support the community and its needs.
- c. To ensure that the full range of services and facilities are accessible to all members of the community.

Controls

1. A Social Impact Assessment (SIA) must be prepared in accordance with Council’s *Social Impact Assessment Guidelines*, and submitted with the development application in the following circumstances:
 - i. Where a major scale subdivision (creating more than 50 lots) is proposed, or
 - ii. For medium scale subdivision (creating between 20 and 50 lots) proposals where Council identifies that particular circumstances warrant it.

Note: Council officers will use the following criteria to determine if a SIA is required under control 1(ii) above:

The development is targeted at a particular socio-economic or demographic group, and

The development has, or is anticipated to generate, significant levels of community opposition.

2. Potential adverse impacts identified by a SIA must be mitigated through redesign, whilst positive impacts should be enhanced by the design or other actions.

Note: The scope, complexity and requirements of a SIA will be commensurate with the scale of the proposed development. Applicants are advised to consult with Council’s Social Planner regarding specific requirements. Where the development is proposed on land that has been the subject of rezoning in the previous two years and where a SIA was undertaken for that rezoning, the previous SIA can be submitted.

3 SUBDIVISION DESIGN

The following definitions are provided for words and phrases used in this section of LMDCP 2014:

standard lot means a lot that is generally rectangular in shape.

corner lot means a lot that has frontage to two or more intersecting roads.

battle axe lot means an allotment of land behind another with access to a public road via a narrow drive or access handle.

irregular lot means a lot that is not a standard lot.

small lot means a lot created under Clause 4.1A of the Lake Macquarie LEP 2014.

building area means the area of the site capable of supporting development. It does not include:

- (a) front, side and rear setbacks, or
- (b) the access handle of a battle-axe lot.

community association, community development lot, community parcel, community property and **community scheme** have the same meaning as they have in the Community Land Development Act 1989.

neighbourhood scheme has the same meaning as it has in the Community Land Development Act 1989.

3.1 LOT SIZES AND DIMENSIONS – RU2 RURAL LANDSCAPE ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots, including consideration of where bin collection from the property can occur.

Controls

- 1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
- 2. For any subdivision, the minimum area for the resulting lot(s) is 20 hectares.

3.2 LOT SIZES AND DIMENSIONS – RU3 FORESTRY ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that subdivision does not preclude the orderly development of land.
- b. To promote the efficient use of land.

Controls

- 1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
- 2. No other numerical standards.

3.3 LOT SIZES AND DIMENSIONS – RU4 PRIMARY PRODUCTION SMALL LOTS ZONE

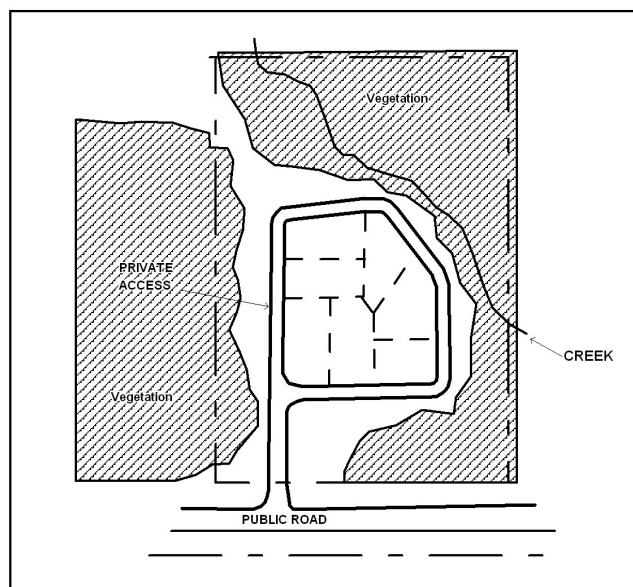
The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. Subdivision for the purpose of:
 - i. A standard lot, the minimum area of the resulting lot(s) is one hectare.
 - ii. Community title schemes, the minimum area for the resulting lot(s) is 1000m² and the maximum is 1500m²; and
 - o Lots must be clustered together, or otherwise established for the purpose of retaining a significant area of unbuilt open space, in order to preserve the natural quality of the land and the rural character of the area. All remaining land must be community property under the control of the community association;
 - o Lots must not have frontage to a public road unless it can be demonstrated that the subdivision is consistent with the existing subdivision pattern, and that the subdivision will preserve the natural and scenic quality of the land;
 - o To undertake a Community Title subdivision, the parent lot must be at least five hectares; and
 - o The maximum density of lots (excluding the community lot) is 1.6 lots per hectare.



Img_012

Figure 2 - Example of Community Title Subdivision

3.4 LOT SIZES AND DIMENSIONS – RU6 TRANSITION ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision does not preclude the orderly development of land.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. For any subdivision, the minimum area for the resulting lot(s) is 200 hectares.

3.5 LOT SIZES AND DIMENSIONS – R1 GENERAL RESIDENTIAL ZONE (NORTH WALLARAH)

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. Subdivision must comply with the North Wallarah Area Plan in Part 12 of this DCP.

3.6 LOT SIZES AND DIMENSIONS – R2 LOW DENSITY RESIDENTIAL ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014 or with Clause 4.1A of the Lake Macquarie LEP 2014.
2. Subdivision for the purpose of:
 - i. A standard lot, the minimum area of the resulting lot(s) is 450m² and the minimum width is 14 metres;
 - ii. A corner lot, the minimum area of the resulting lot(s) is 600m² and the minimum width is 18 metres;

- iii. A battle-axe lot, the minimum area of the resulting lot(s) is 600m² and the minimum width is 18 metres. Additionally:
 - a. A battle-axe lot must have a minimum rectangular building area of 250m² with a minimum width of 12 metres; and
 - b. The minimum width of the battle-axe access handle is four metres when servicing one lot, and five metres when servicing two lots. The maximum number of battle-axe lots sharing a single access handle is two;
- iv. An irregular lot, the minimum area of the resulting lot(s) is 450m². Irregular shaped lots must have a minimum rectangular building area of 250m² with a minimum width of 12 metres; and
- v. A dual occupancy, the minimum area of the resulting lot(s) is 250m².
- vi. A small lot under Clause 4.1A of the Lake Macquarie LEP 2014 must be a minimum of 300m² and no more than 450m².

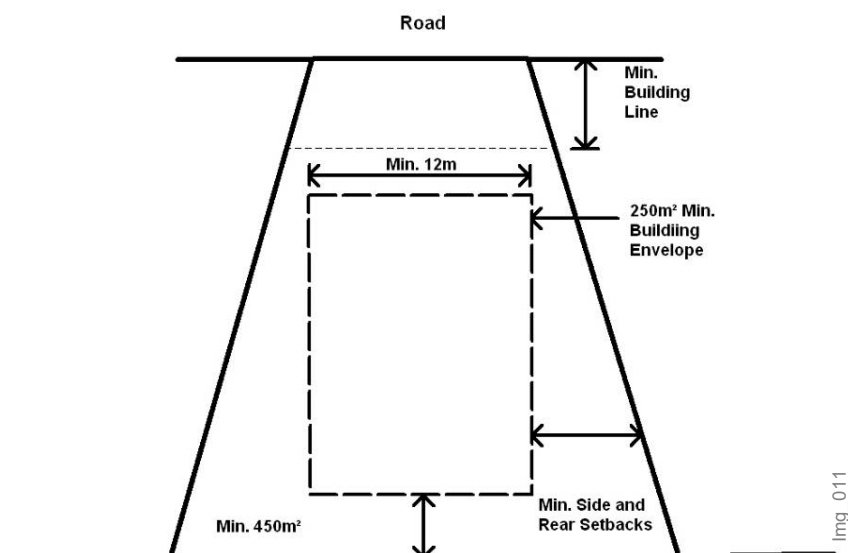


Figure 3 - Example of Irregular shaped lot

3.7 LOT SIZES AND DIMENSIONS – R3 MEDIUM DENSITY RESIDENTIAL ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.
- f. To ensure all lots created including any small lots retain high amenity, using multiple storeys if necessary to meet such requirements for landscaping and other amenity related conditions.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014 or with Clause 4.1A of the Lake Macquarie LEP 2014.

2. Subdivision for the purpose of:
 - i. A standard lot, the minimum area of the resulting lot(s) is 900m² and the minimum width is 18 metres;
 - ii. A corner lot, the minimum area of the resulting lot(s) is 1000m² and the minimum width is 20 metres;
 - iii. A battle-axe lot, the minimum area of the resulting lot(s) is 1250m² and the minimum width is 20 metres. Additionally:
 - o The minimum width of the battle-axe access handle is eight metres. The maximum number of battle-axe lots sharing a single access handle is two;
 - iv. An irregular shaped lot, the minimum area of the resulting lot(s) is 1200m². Irregular shaped lots must have a minimum rectangular building area of 900m² with a minimum width of 23 metres.
 - v. A small lot under Clause 4.1A of the Lake Macquarie LEP 2014 must be a minimum of 200m² and no more than 450m² unless created pursuant to the exception under Clause 4.1A (4).

3.8 GUIDANCE FOR CLAUSE 4.1A – EXCEPTIONS TO MINIMUM SUBDIVISION LOT SIZE

This section provides requirements for an application prepared in accordance with Clause 4.1A of Lake Macquarie LEP 2014 where an exception to the lot size maps in Lake Macquarie LEP 2014 is sought.

Objectives

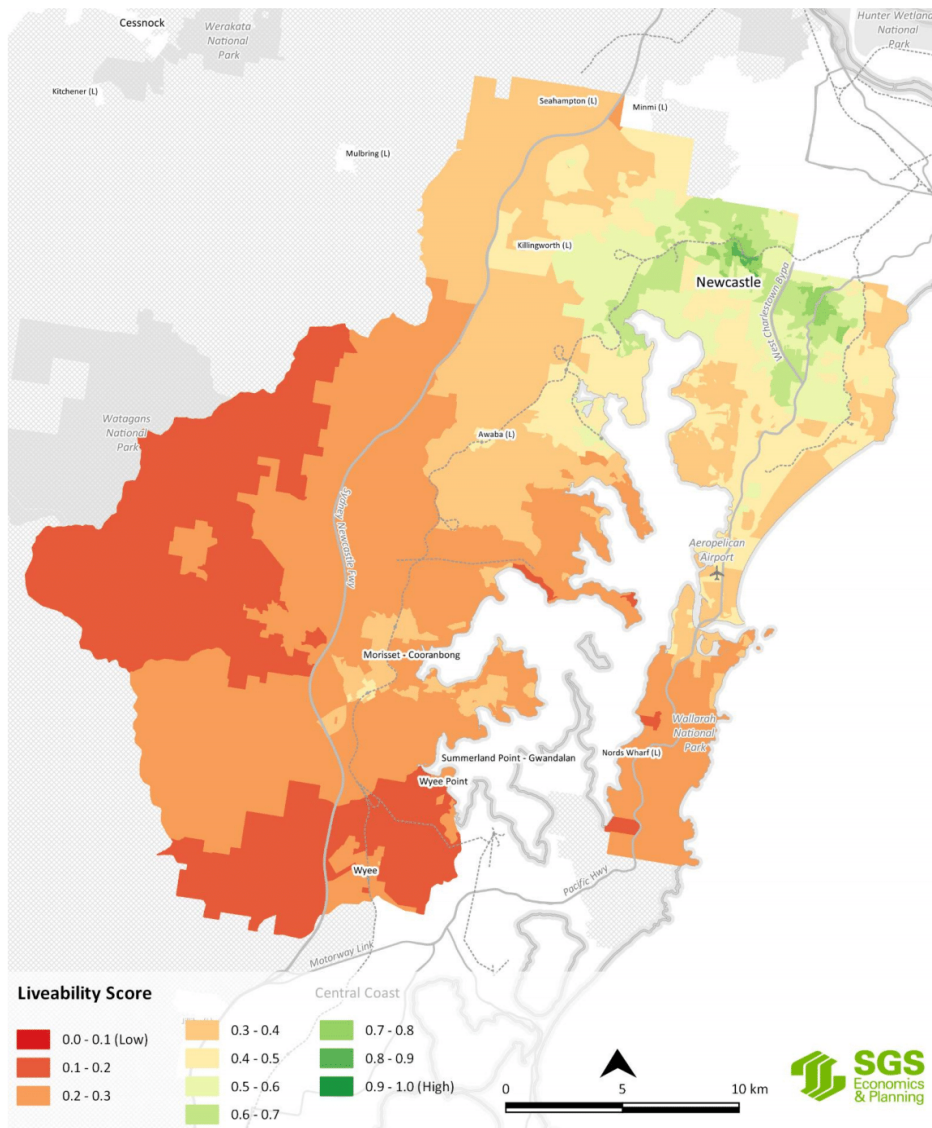
- a. To ensure all residential lots created can achieve a high level of amenity for the subject lot and for neighbouring lots.
- b. To ensure development on smaller lots is undertaken in a coordinated manner and supported within those areas of the LGA that have a medium to high liveability ranking (See Figure 4 below).
- c. To support a range of lot sizes that provides diversity of housing choice without adversely impacting residential amenity.

Controls

1. An application submitted pursuant to Clause 4.1A (3) or 4.1A (4) of the Lake Macquarie LEP 2014 must include the following information, prepared consistently with the provisions contained in Part 9 – Specific Land Uses – Housing on Small and Narrow Lots and any other applicable provision of this DCP:
 - i. A character statement, that recognises the place the subject site is located, and demonstrates how the development will meet community expectations for appearance, use and density,
 - ii. A Site Analysis Plan,
 - iii. Subdivision Design Plans (see Figure 5 below for examples) showing:
 - The front, side and rear building setbacks, including articulation zones,
 - Lot widths and depths,
 - The location of any zero lots lines,
 - The locations for principal private open space, including an area that meets the solar access requirements of the DCP,
 - The ground floor and second floor building zones,
 - The locations for garages and driveways,
 - Where it is proposed to build dwellings to the boundary on both sides, consideration must be given to the construction sequencing and how this will be achieved,

- Utility and stormwater easements, and
- The location of any benching or retaining walls.
- iv. An indication of how the subdivision design and proposed building zones respond to site topography and landscape features,
- v. A development application for proposed dwellings for lots less than 200m², and
- vi. Any site specific development controls for the area.

FIGURE 27. OVERALL LIVEABILITY SCORE OF LAKE MACQUARIE LGA



Source: SGS Economics and Planning, 2018

Figure 4 - Overall Liveability Ranking for Lake Macquarie LGA - Medium to High Range is from 0.5-1.0

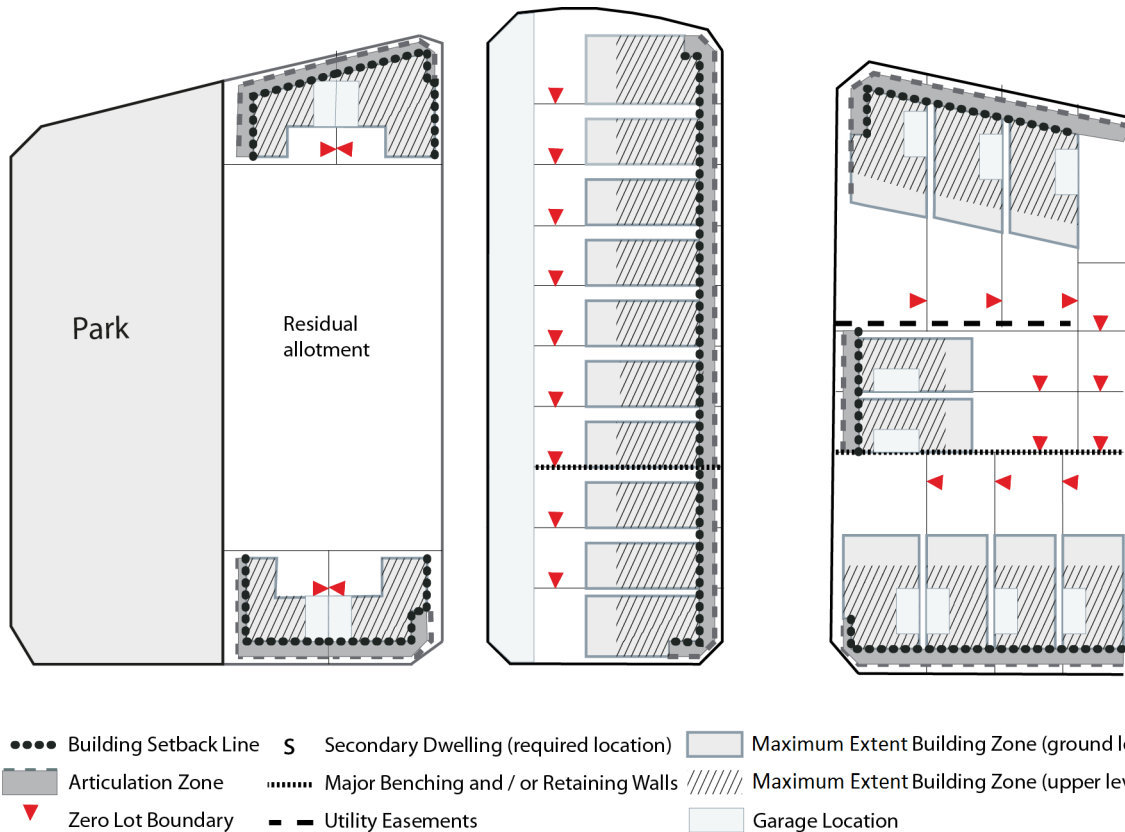


Figure 5 - Example of a Subdivision Design Plan

3.9 LOT SIZES AND DIMENSIONS – E1 LOCAL CENTRE, E2 COMMERCIAL CENTRE AND MU1 MIXED USE ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- To promote the efficient use of land.
- To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- To facilitate subdivision which results in predominately rectangular shaped lots.
- To ensure that subdivision does not preclude the orderly development of land.
- To require adequate street frontages and dimensions for lots.

Controls

- Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
- No numerical standards apply.

3.10 LOT SIZES AND DIMENSIONS – E3 PRODUCTIVITY SUPPORT ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. For subdivision for the purpose of a standard lot or an irregular lot, the minimum area of the resulting lot(s) is 1500m² and the minimum width is 25 metres.
3. For subdivision for the purpose of a battle-axe lot, the minimum area of the resulting lot(s) is 1500m² and the minimum width is 25 metres. Additionally, the minimum width of the battle-axe access handle is nine metres. The maximum number of battle-axe lots sharing a single access handle is two.

3.11 LOT SIZES AND DIMENSIONS – E5 HEAVY INDUSTRIAL ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.
- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. For subdivision for the purpose of a standard lot or an irregular lot, the minimum area of the resulting lot(s) is 4000m² and the minimum width is 40 metres.
3. For subdivision for the purpose of a battle-axe lot, the minimum area of the resulting lot(s) is 4000m² and the minimum width is 40 metres. Additionally, the minimum width of the battle-axe access handle is 12 metres. The maximum number of battle-axe lots sharing a single access handle is two.

3.12 LOT SIZES AND DIMENSIONS – E4 GENERAL INDUSTRIAL ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To promote the efficient use of land.
- b. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- c. To facilitate subdivision which results in predominately rectangular shaped lots.
- d. To ensure that subdivision does not preclude the orderly development of land.

- e. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. For subdivision for the purpose of a standard lot or an irregular lot, the minimum area of the resulting lot(s) is 1500m² and the minimum width is 25 metres
3. For subdivision for the purpose of a battle-axe lot, the minimum area of the resulting lot(s) is 1500m² and the minimum width is 25 metres. Additionally, the minimum width of the battle-axe access handle is nine metres. The maximum number of battle-axe lots sharing a single access handle is two.

3.13 LOT SIZES AND DIMENSIONS – SP1 SPECIAL ACTIVITIES, SP2 SPECIAL INFRASTRUCTURE, AND SP3 TOURIST ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that subdivision does not preclude the orderly development of land.
- b. To promote the efficient use of land.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. No numerical standards apply.

3.14 LOT SIZES AND DIMENSIONS – RE1 PUBLIC RECREATION AND RE2 PRIVATE RECREATION ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that subdivision does not preclude the orderly development of land.
- b. To promote the efficient use of land.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. No numerical standards apply.

3.15 LOT SIZES AND DIMENSIONS – C1 NATIONAL PARK AND NATURE RESERVE ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that land zoned for environmental conservation continues to maintain its ecological function.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. No numerical standards apply.

3.16 LOT SIZES AND DIMENSIONS – C2 ENVIRONMENTAL CONSERVATION ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that land zoned for environmental conservation continues to maintain its ecological function.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. The minimum area of the resulting lot(s) for all land within C2 Zone is 40 hectares.
3. The minimum area of the resulting lot(s) for land within South Wallarah Peninsula – being land east of the Pacific Highway, as shown on the Lot Size Map in Lake Macquarie LEP 2014 – is 100 hectares.

3.17 LOT SIZES AND DIMENSIONS – C3 ENVIRONMENTAL MANAGEMENT ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that land zoned for environmental management continues to maintain its ecological function.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. Subdivision for the purpose of:
 - i. A standard lot, the minimum area of the resulting lot(s) is 40 hectares. The resulting lot must have a minimum building area of 1600m² with a minimum width of 40 metres, and a slope less than 1:5; and
 - ii. A Community Title scheme, the minimum area for the resulting lot(s) is 1000m² and the maximum is 2500m². The maximum density (excluding community property) is one lot per 10 hectares. Additionally:
 - a. Lots must be clustered together, or otherwise established for the purpose of retaining a significant area of unbuilt open space in order to preserve, maintain and enhance the natural and scenic quality of the land. All remaining land must be community property under the control of the community association;
 - b. Lots must not have frontage to a public road unless it can be demonstrated that the subdivision is consistent with the existing subdivision pattern, and that the subdivision will preserve the natural and scenic quality of the land;
 - c. To qualify to subdivide using community title, the parent lot must be at least 40 hectares.

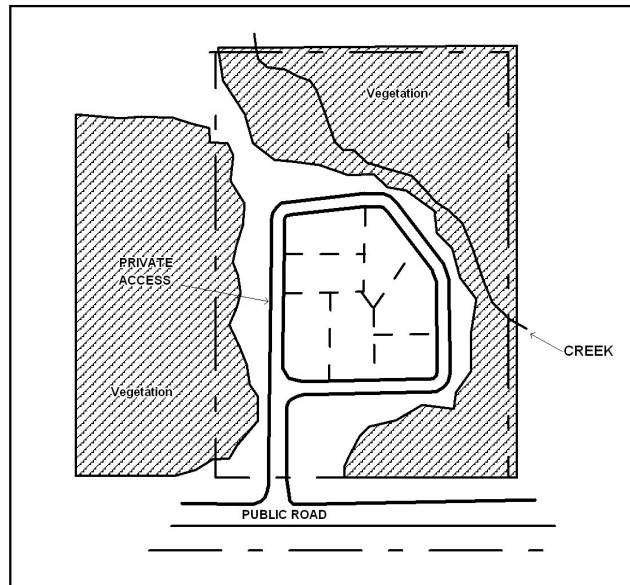


Figure 6 - Example of Community Title Subdivision

3.18 LOT SIZES AND DIMENSIONS – C4 ENVIRONMENTAL LIVING ZONE

The subdivision standards in this part do not apply to strata subdivision.

Objectives

- a. To ensure that land zoned for environmental living continues to maintain its ecological function.
- b. To promote the efficient use of land.
- c. To ensure that subdivision provides a variety of lot sizes that meet community and economic needs, while ensuring that ecological, social and cultural values are safeguarded.
- d. To facilitate subdivision which results in predominately rectangular shaped lots.
- e. To ensure that subdivision does not preclude the orderly development of land.
- f. To require adequate street frontages and dimensions for standard, battle-axe and irregular shaped lots.

Controls

1. Subdivision must comply with the lot size map in Lake Macquarie LEP 2014.
2. Subdivision for the purpose of:
 - i. A standard lot, the minimum area of the resulting lot(s) is two hectares. The resulting lot must have a minimum building area of 1600m² with a minimum width of 40 metres, and a slope less than 1:5.
 - ii. A Community Title scheme, the minimum area for the resulting lot(s) is 600m² and the maximum is 1200m². The maximum density (excluding community property) is one lot per hectare. Additionally:
 - a. Lots must be clustered together, or otherwise established, for the purpose of retaining a significant area of unbuilt open space in order to preserve, maintain and enhance the natural and scenic quality of the land. All remaining land must be community property under the control of the community association;
 - b. Lots must not have frontage to a public road unless it can be demonstrated that the subdivision is consistent with the existing subdivision pattern, and that the subdivision will preserve the natural and scenic quality of the land; and

- c. To qualify to subdivide using community title, the parent lot must be at least 10 hectares.

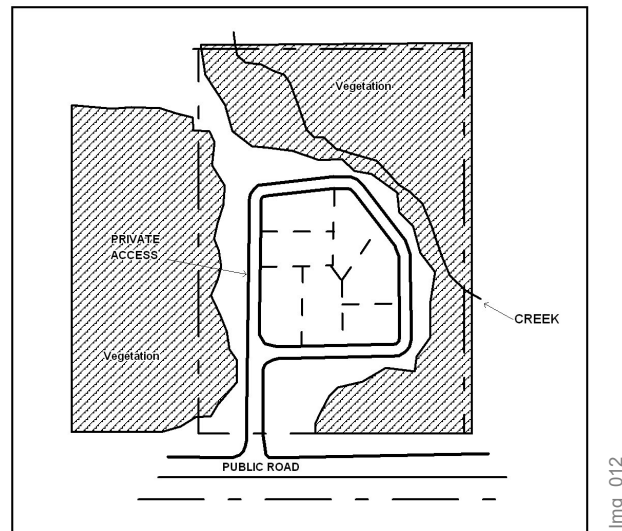


Figure 7 - Example of Community Title Subdivision

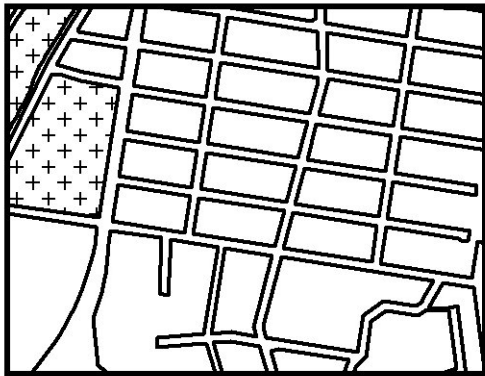
3.19 SUBDIVISION LAYOUT

Objectives

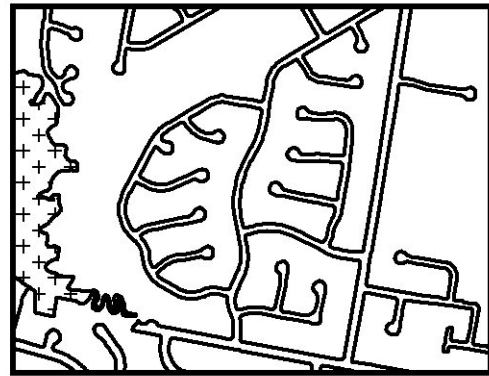
- To ensure the subdivision layout responds to site characteristics, setting, landmarks, views, site constraints and land capability.
- To ensure the street layout minimises cut and fill for road construction, and for future house construction.
- To ensure street and lot orientation and lot dimensions facilitate the siting and design of energy efficient buildings with good solar access.
- To ensure subdivision layout is designed to integrate with surrounding neighbourhoods and the natural environment.
- To ensure that development occurs in an ecologically sustainable manner, and is energy efficient in terms of design and layout, consumption and materials.
- To ensure waste management systems, including servicing, are an integral component of the development.
- To ensure layout and roads are designed with consideration to maximising sustainable waste collection by optimising waste collection routes and collection points.

Controls

- A Site Analysis Plan, Structure Plan, Water Cycle Strategy and Subdivision Site Plan must be prepared and submitted with an application for subdivision. These plans must demonstrate how the subdivision responds to the site's characteristics and integrates with the surrounding settlement pattern.
- Street layout should minimise cut and fill for road construction.
- Road layout must reflect a grid pattern or modified grid pattern and avoid the use of cul-de-sacs. See Figure 8.



Good Example



Poor Example

img_013

Figure 8 - Good and Poor example of grid road layout

4. Lots must be regular and rectangular in shape where possible, to maximise siting opportunities and lot yield.
5. Lots should be orientated and sized to allow good solar access for future developments. Lots fronting north-south orientated roads should be deeper, to maximise solar access opportunities for future development.
6. Narrow lots must avoid being orientated with the rear of the allotment to the south due to the lack of solar access at the rear of the house.
7. In residential subdivision and where topography allows, 80% of lots should achieve a 5 Star energy efficiency rating. Refer to Council's *Subdivision Guideline* for more information.
8. The subdivision pattern must be integrated with the surrounding neighbourhood in terms of lot size, orientation and road connectivity.
9. A perimeter road should be provided to separate development from bushfire areas, public open space and from ecological habitat and corridors.
10. All lots must have direct access to a road.
11. In residential subdivisions, access to individual lots must be gained predominately from local or collector roads. Refer to the hierarchy of streets in Figure 9.
12. Splays of at least 4m x 4m must be provided on corner allotments. Small lots are located in proximity to public or communal open space and / or close to public transport and / or close to amenities such as community services and shops.
13. Lots with vehicle access from the front that are 12.5m wide or less must be located on streets, which facilitate on-street parking on both sides. These streets should consist of two travel and two parking lanes where possible.
14. Different housing types are spread throughout a subdivision in localised clusters rather than distinct precincts to help create a desirable streetscape and neighbourhood character.
15. To achieve a more sustainable design, street layouts (and in staged development, interim stage street layouts) should, as described in the *Lake Macquarie City Council Waste Management Guidelines*:
 - i. Minimise the need for waste collection vehicles to stop and collect bins in an uphill direction, and maximise collection stop points where a waste collection vehicle is traversing downhill;
 - ii. Minimise the waste collection vehicle having to traverse the street more than once (or once in each direction);
 - iii. Have collection routes with as few right hand turns across intersections as possible;

- iv. Minimise need for bin collection on heavily trafficked streets and turning off from heavily trafficked streets into properties to service bins;
- v. Minimise dead end streets, tight turning spaces, height-restricting overpasses, and any other situations requiring reversing, three-point turns and U-turns by waste collection vehicles;
- vi. Avoid the need to place bins for collection on the kerbside around a tight curve or cul-de-sac that would interfere with a waste collection vehicle swept path; and
- vii. In areas where safe waste collection space is limited, plan and design for waste collection vehicle pull-in bays and locate shared bin collection points there. However, these collection points should not be more than 75m from all waste storage areas that they service.

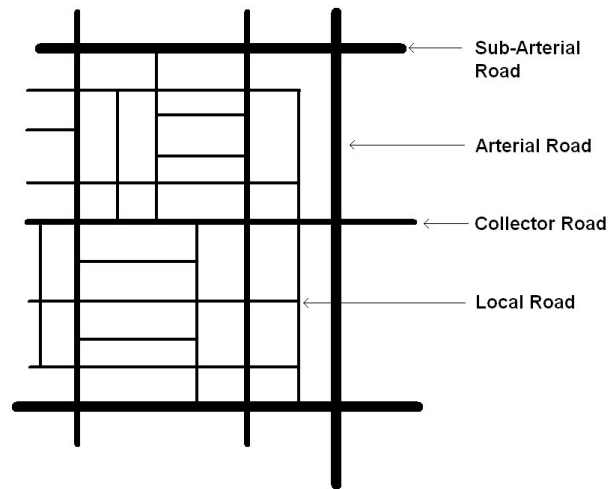
3.20 MOVEMENT SYSTEM

Objectives

- a. The movement system is safe, efficient and facilitates connectivity, permeability and legibility for all road users (motor vehicles, cyclists and pedestrians).
- b. The movement system is consistent with Council's Hierarchy of Streets (Figure 9).
- c. The movement system has a clear structure with a clear physical distinction between each road type.
- d. The movement system is designed to encourage non-motorised transport.

Controls

- 1. A Traffic Study must be prepared and lodged for medium and major scale subdivision applications, justifying the proposed road layout and addressing any other traffic implications. See Council's *Traffic Impact Statement and Vehicle Access Guideline* for more information.
- 2. For local and collector streets in residential subdivisions, street blocks must not exceed a maximum of 180 metres long and 90 metres wide. This will provide well connected and permeable neighbourhoods that encourage walking and cycling.
- 3. Commercial Street blocks must not exceed a maximum of 100 metres long and 70 metres wide, with rear lanes. Shorter lots dimensions must front the main or active road.
- 4. Cul-de-sacs or dead end streets should be avoided. Where residential dead ends streets are unavoidable, they must provide access to no more than 10 lots. The head of the cul-de-sac must be visible from the cross street (Figure 10). Cul-de-sacs must be designed to provide for on street parking, and movement of a medium-rigid vehicle. See figure 11 for the minimum dimensions for T-Head cul-de-sacs. If waste is to be collected within the cul-de-sac then the road must be designed for Council and contractors' waste collection vehicle fleet to be able to access the street, collect bins, turn and exit the street in a forward direction. Alternatively, a suitable waste collection point must be provided on the cross street, and be less than 75 metres from the furthest house in the cul-de-sac.
- 5. Road intersections must be appropriately spaced to allow for convenient and safe movement for all road users.



Img_014

Figure 9 - Hierarchy of Streets

Acceptable cul-de-sac design ✓



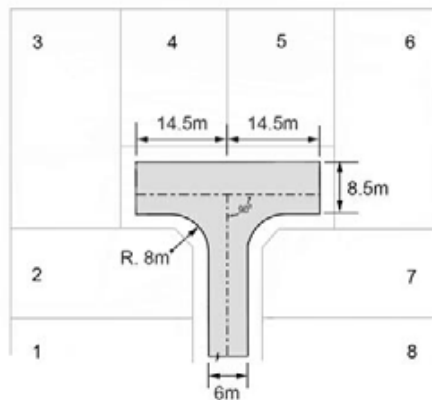
Undesirable cul-de-sac design ✗



Img_015

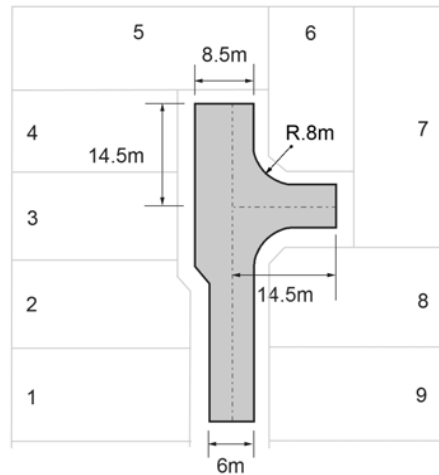
Figure 10 - Acceptable Cul-de-sac design

T-Head Cul-de-sac



R4 - 0015

*Reversible T-Head cul-de-sac
Dimensions*



R4 - 0014

Figure 11 - Minimum dimensions for T-Head and Reversible T-Head cul-de-sacs

3.21 ROAD DESIGN

Objectives

- a. The road network reflects the function of the road and the needs of all road users.
- b. Roads are designed for a variety of transport modes.
- c. Roads are designed and constructed to suit the intended use, and to minimise maintenance costs.

Controls

1. Roads must be designed to meet the requirements of Table 3 - Road types and dimensions.
2. When developing subdivisions that front existing roads, Council may require the construction of foot-paving, kerb and guttering, drainage and road-works. The extent of the required works will depend on the specific circumstances, the existing provision in the vicinity and the desired future development outcomes of the area. As a minimum, Council will require works in Business, Residential, Industrial, Tourism and Recreation and Infrastructure Zones where:
 - i. Subdivision will result in five or more lots; or
 - ii. The lot frontage is greater than 100 metres; or
 - iii. Existing drainage problems will benefit from kerbing and associated works; or
 - iv. The development will adjoin existing footpath, kerbing or associated works; or
 - v. The development is in Environmental (Living) and Rural Zones, and where subdivision will result in additional lots.
3. Roads must be constructed using sound engineering practices and to the relevant Australian Standards and Council's Volume 2 Engineering Guidelines.
4. The location and design of arterial and sub-arterial roads must be determined in consultation with the Roads and Maritime Services (RMS) and Council.
5. Where subdivision is in a bushfire prone area, roads must be constructed in accordance with NSW Planning for Bushfire Protection Guideline.
6. Splays of at least four metres by four metres must be provided on all corner allotments.

Table 3 - Road types and dimensions

Street type	Maximum number of lots	Maximum traffic volume (vpd)	Preferred design speed ¹ (km/h)	Road Reserve width (m) ²	Carriage way width (m)	Footway verge width (m)	Footpath	Shared Pathway	Street trees	On-road cycling provision	Kerbing ³	Design considerations
Residential												
Access lane ⁴	N/A	2,000	10-30	8	6	1 & 1	No	No	No	No	Upright/flush	
Cul-de-sacs / Access Streets	Up to 10	2,000	30	15	8	3.5 & 3.5	No ⁵	No	Yes	No	Upright	
Local Street – Secondary	10 – 100	2,000	30	16	8	4.5 & 3.5	1 x 1.5m	No	Yes	No	Upright	
Local Street – Primary	100 – 200	3,000	40	17 18	9 9	4.5 & 3.5 4.5 & 4.5	1 x 1.5m 2 x 1.5m ⁶	No	Yes	No	Upright	
Collector	200+	≥3,000	50	24.6	14.6	4.5 & 5.5	1 x 1.5m	1 x 2.5 (min)	Yes	Yes–cycle lanes	Upright	Carriageway width based on 2 x 1.2 bicycle lanes plus 0.7m buffer x 2, 2 x 3.3 travel lanes, 2 x 2.1m parking lanes
Sub-Arterial	200+	≥3,000	≥60	24.8	14.8	4.5 &	1 x 1.5m	1 x 2.5	Yes	Yes – cycle	Upright	

¹ Design speed differs to sign-posted speed. Entry treatments including kerb extensions and continuous footpaths are preferred for local and access streets. Mid-block treatments such as mini-roundabouts, chicanes, slow points and wombat crossings are appropriate for streets blocks longer than 150m. Refer to Councils Walking, Cycling and Better Streets strategy and NSW Movement and Place design solutions.

² In bushfire prone areas, the carriageway and road reserves may be required to be widened, to comply with the requirements of Planning for Bushfire Protection

³ Where subdivision is designed using Water Sensitive Urban Design (WSUD), kerb and guttering may be replaced with table drains/roadside swales

⁴ Access lanes should be provided as part of residential rear access (to accommodate shared paths on collector streets) and commercial subdivision for access and servicing

⁵ Footpaths required on one side of the street within Principal Pedestrian Network medium density zoned areas

⁶ Footpaths required on both sides of the road if located in the principal pedestrian network. Refer to the walking, cycling and better streets strategy and maps.

Street type	Maximum number of lots	Maximum traffic volume (vpd)	Preferred design speed ¹ (km/h)	Road Reserve width (m) ²	Carriage way width (m)	Footway verge width (m)	Footpath	Shared Pathway	Street trees	On-road cycling provision	Kerbing ³	Design considerations
						5.5		(min)		lanes		
Other												
Commercial / Business area (excluding Business Park)	N/A	N/A	50	23.8 – 24.8	14.8 – 15.6	4.5 & 4.5	Yes – full width of verge both sides	No – see kerb separated cycle lanes	Yes	Yes – kerb separated main street ⁷	Upright	Carriageway width based on 2 x 3.3 travel lanes, 2 x 2.1m parking lanes, 1 x 4m two-way separated bicycle path OR 2 x 2.4m one-way separated bicycle paths
Industrial / Business Park	N/A	N/A	50	22	14	4.5 & 3.5	1 x 1.5m	Note ⁸	Yes	Yes – cycle lanes	Upright	
Non-Urban Living (Rural / Environmental Living)	N/A	N/A	90-110	19.5	6.5 with 2 x 1.5m shoulders	5	No	Note ⁹	Yes	Yes	WSUD	

⁷ Kerb separated bicycle lanes (bicycle path within a road related area) preferred treatment as defined by Austroads for town centres and neighbourhood centres, to reduce conflict between pedestrians, cyclists, mobility scooters and vehicle movements. Facilities may be restricted to 'through' routes only (to link two connections either end of a town centre).

⁸ Shared path may be required if Walking, Cycling and Better Streets Strategy identifies route (refer to digital cycle routes planning map).

⁹ Shared path may be required if Walking, Cycling and Better Streets Strategy identifies route (refer to digital cycle routes planning map).

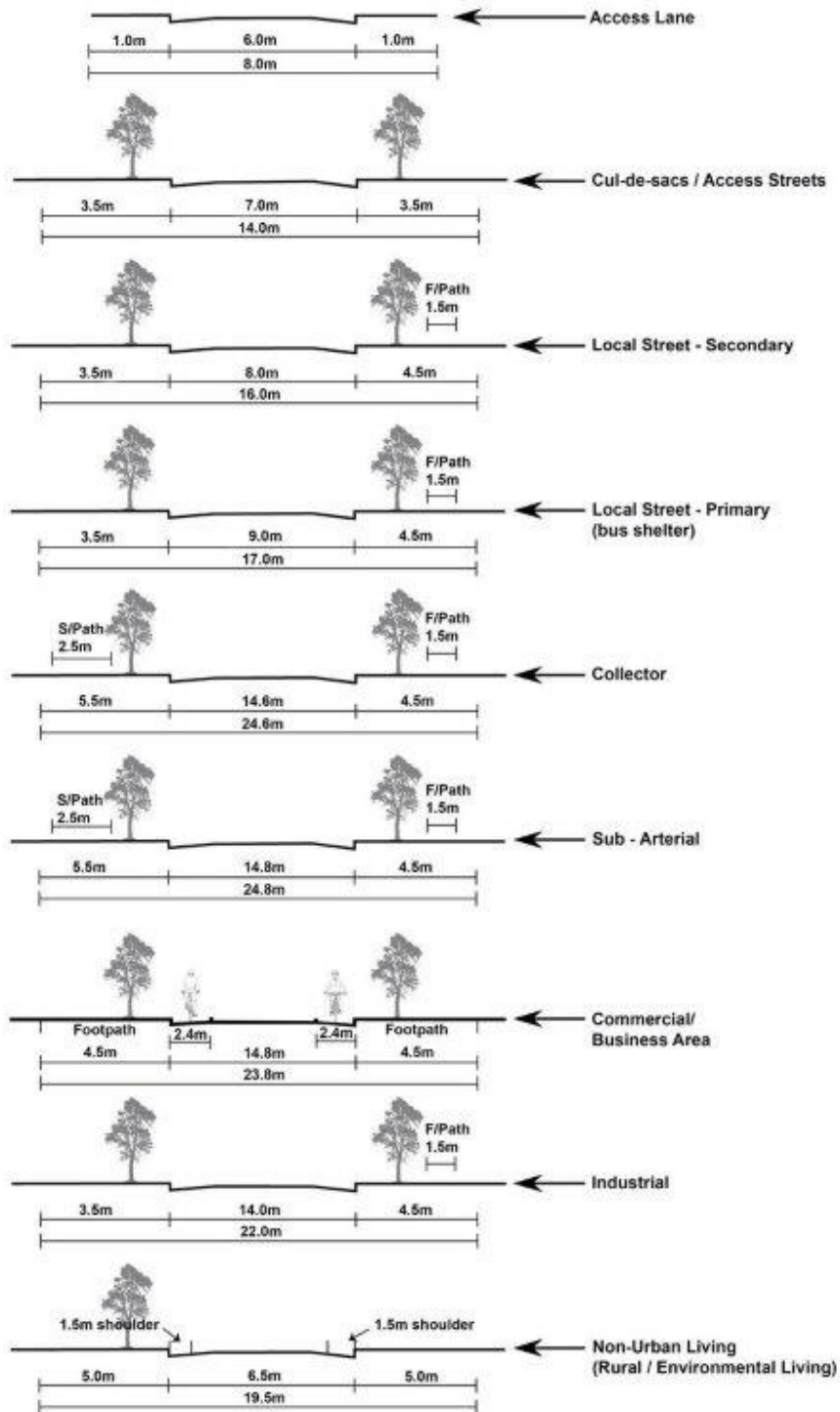


Figure 12 - Indicative road cross sections

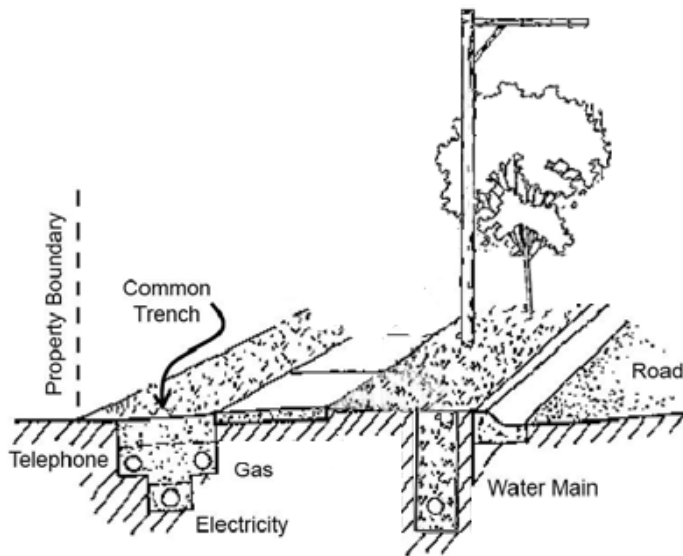


Figure 13- 4.5 meter wide road verge with footpath

3.22 PEDESTRIAN AND CYCLE NETWORK

Objectives

- a. To ensure the provision of accessible, well located and designed pedestrian and shared pathways.
- b. To provide a highly accessible network of pedestrian and shared pathways that encourage walking and cycling to local destinations, including schools, shops, sporting and community facilities, parks, playgrounds, public transport stops/stations and employment areas.
- c. To ensure that the width and location of pedestrian and shared pathways are safe, and that they have adequate lighting, conserve trees and other vegetation. They must also have suitable grades that allow for passing at potential congestion points, and meet relevant Council and Australian Standards.

Controls

1. Pedestrian and shared pathways must be provided for all major scale subdivisions. The routes of the pedestrian and shared pathway network must be identified on the subdivision plan.
2. Pedestrian and shared pathways must be within the road network and/or as a component of the open space network. The location of pedestrian and shared pathways in a road reserve is determined by the road type, vehicle speeds and volumes. It is preferable that pedestrian and cycle paths are separated from the road.
3. Pedestrian and shared pathways must be provided in accordance with Table 3 – Road types and dimensions.
4. Pedestrian and shared pathways should provide a shorter route (in length) than the alternative car route to major centres, recreational areas and transport nodes.
5. Pedestrian and shared pathways must comply with the design and construction requirements detailed in *Volume 2 Engineering Guidelines* and *Austrroads Part 14: Bicycle Standards*, along with other relevant Council and Australian Standards.
6. Where provided, pedestrian and shared pathway corridors between lots must be a minimum width of four metres, and comply with the following criteria:

- i. Are a straight route that allows a direct sight line for the length of the connection;
 - ii. Incorporate a street light at either end; and
 - iii. If the length exceeds 75 metres, low level intermediate lighting and appropriate landscaping is provided.
7. Pedestrian and shared pathways:
- i. Widths must meet Austroads' standards, but can be wider where required to reflect their expected usage. They must also take into account usage generated by the development and surrounding development – such as schools, sporting and community facilities, parks and Centres;
 - ii. Must be located and designed to complement and protect the natural attributes of riparian areas, native bushland areas, foreshore areas and surrounding environments;
 - iii. Must provide directional, hazard warning, tactile indicators and interpretive signage;
 - iv. Must provide facilities such as bike racks in accordance with relevant Australian Standards, seating, and drinking fountains at activity nodes within the open space network; and
 - v. Must include lighting in accordance with Australian Standards.

Note: Please refer to Council's Walking, Cycling and Better Streets Strategy for further information.

3.23 PUBLIC TRANSPORT

Objectives

- a. To maximise public transport usage.
- b. To encourage higher population densities within a walkable catchment of public transport routes, stops or stations. This will capitalise on the infrastructure investment, and support the economic operation of the public transport network.
- c. To ensure that the road network facilitates efficient bus routes and pedestrian access to bus stops and/or railway stations.

Controls

- 1. Higher lot densities should be provided within 200 metres of a public transport stop/station or interchange.
- 2. Public transport facilities such as bus shelters, seating and lighting must be provided for developments that incorporate a bus route, and/or where development is adjoining an existing or proposed bus route. All facilities must comply with the relevant Australian Standards and government guidelines.
- 3. Bus routes should be located on primary local streets, collector, sub-arterial and/or arterial roads.
- 4. Road networks must be a grid pattern and designed to maximise connectivity from local roads to the bus route. Ninety percent of proposed residential lots should be within a 400-metre walk to the preferred public transport route.
- 5. Subdivision applications must provide evidence of discussions with local bus service providers regarding potential location of bus routes, and the requirements for bus shelters/stops.

3.24 UTILITIES INFRASTRUCTURE

Objectives

- a. The distribution and design of land uses minimise capital and maintenance cost of infrastructure and promotes the efficient use of infrastructure.
- b. The location of utility infrastructure minimises visual impact.

Controls

1. All lots must have access to reticulated water and sewer, electricity, telecommunications and where available gas. Where an equal or superior service can be provided using alternative technology and this service meets all the requirements of the relevant service provider, this alternative may be considered.
2. Common underground trenching for electricity, gas and telecommunications must be provided wherever a new road is constructed. The common trench should be located adjacent to the lot boundary. Refer to Figure 14 – Example of common underground utility trench.
3. Water mains must be located in the road verge adjacent to the carriageway, and to Hunter Water's specifications.

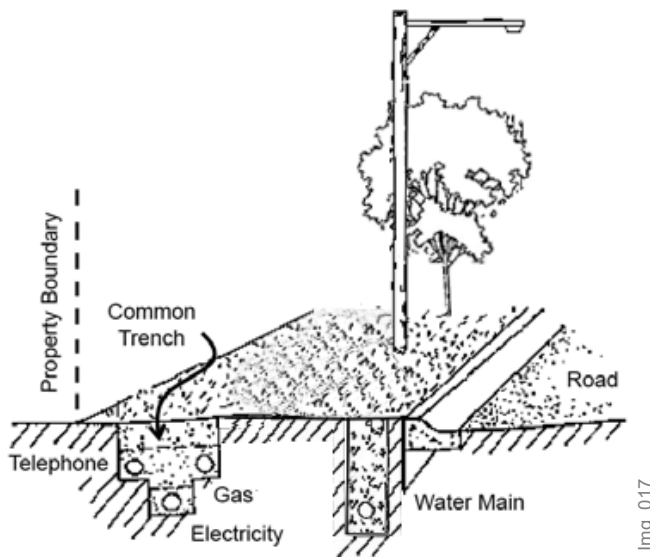


Figure 14 - Example of location of common underground utility trench.

3.25 OPEN SPACE AND RECREATION

The requirement for open space is typically required for residential subdivision. However, the open space and recreational requirements of subdivision in all zones will be considered during the assessment of any application for subdivision.

Objectives

- a. To provide a highly accessible mix of local and district public open space areas and community facilities.
- b. To ensure that public open space of appropriate quantity and quality is provided to meet the recreational and social needs of the community.
- c. To provide for well distributed and highly accessible open spaces and recreation facilities that:

- i. Provide the community with a range of passive and active recreational opportunities;
- ii. Are of a manageable size for cost effective maintenance;
- iii. Are designed so as to contribute to water cycle management, without hindering their core purpose; and
- iv. Complement the broader open space network within the City.

Controls

1. Open space locations and networks must be shown on the subdivision structure plan.
2. The number, size and location of open space and local parks must be consistent with Council's requirements, and the relevant Section 7.11 Contributions Plan.
3. Open space and recreation facilities should be located so that 90% of residential lots are within 800 metres of a local park.
4. Subdivision layout must provide a direct access from all lots to regional and district level open space and recreation facilities.

3.26 SAFETY AND SECURITY

Objectives

- a. To assist the development in mitigating opportunities for criminal activity, behaviour, and perceived opportunities for crime.
- a. To ensure a development contributes to the liveability, safety and security of it users.

Controls

1. Developments must ensure that the following Crime Prevention Through Environmental Design (CPTED) principles have informed the design of the proposed development:
 - i. Surveillance – Developments must be designed and managed to maximise the potential for passive surveillance;
 - ii. Access Control – Developments must be designed so as to make them legible for users without losing the capacity for variety and interest;
 - iii. Territorial Reinforcement – Developments must be designed to define clearly legitimate boundaries between private, semi private and public space; and
 - iv. Space Management – Developments must be designed and detailed to minimise damage and the need for undue maintenance, without undermining the aesthetic and functional qualities of the building

Note: Refer to Council's [Crime Prevention through Environmental Design Guideline](#) for further information.

2. A Crime Risk Assessment must be prepared and submitted to Council for major scale subdivision applications (more than 50 lots). The Crime Risk Assessment should be prepared by a person who has undertaken the NSW Police Service 'Safer by Design' course (or equivalent) and must:
 - i. Analyse the types of crime that may be prevalent in the area, and to which the development may be susceptible;
 - ii. Provide information as to how the design was informed by the CPTED principles; and
 - iii. Inform the design, construction or future management practises of the development (eg: building materials, signage, lighting, landscaping, security patrols, maintenance and graffiti removal practices)
3. Any recommendations or shortfalls identified by a Crime Risk Assessment are to be implemented into the design of the development to the satisfaction of the assessing officer.

Note: Refer to Council's *Crime Prevention Through Environmental Design Guideline* for further information on what needs to be covered in a Crime Risk Assessment.

3.27 SITE BENCHING

Objectives

- a. To ensure that subdivision design and layout responds to the site's characteristics.
- b. To maintain site stability.
- c. To allow site benching of suitable land at subdivision stage.
- d. To ensure that cut and fill does not significantly alter the flow of water or exacerbate flooding.

Controls

1. Fill is not permitted within core riparian zones, within the Lakefront Development Area or the Foreshore Development Area, or within the extent of the 100 year probable ARI (1% AEP) flood event.
2. Cut and fill associated with subdivision development must be minimised.
3. Trees and other native vegetation must be retained on site where possible. Justification is required for removal of trees and other native vegetation.
4. Any fill used must be virgin Excavated Natural Materials, certified Excavated Natural Material or be uncontaminated engineered fill.
5. Benching of allotment for residential subdivision is permitted at the subdivision stage if:
 - i. The side-to-side crossfall on the resulting benched lots does not exceed 5%.
 - ii. The height of retaining walls should generally be limited to 1 metre, and must not exceed 1.5 metres at any one point.
 - iii. All retaining wall designs include a sub-soil drainage system;
 - iv. Retaining walls must be located entirely on the lot being retained, including all necessary sub-soil drainage;
 - v. Retaining walls are designed to accommodate the future dwellings, or a restriction is placed on the lots to ensure that buildings are not built within the zone of influence of the retaining wall;
 - vi. Retaining walls are constructed of decorative masonry or similar high quality materials;
 - vii. Retaining walls incorporate provision for future fencing.

Note: Benching is excavation and / or filling of the natural slope of land to create flat building sites. The earthworks are held in place by a retaining wall.

Note: Section 4.14 of Part 3 – Development within Residential Zones of LMDCP 2014 contains controls for cut and fill that apply in addition to those provided above. Where retaining walls are proposed at the development application stage for an individual lot or detached dual occupancy with two lot subdivision, only the provisions under Section 4.14 of Part 3 of the DCP apply and the retaining wall must be offset 1m from the allotment boundary and located within the low side lot.

3.28 STREET TREES AND STREETScape IMPROVEMENTS

Objectives

- a. To provide high amenity neighbourhoods that enhance the desirable features of the surrounding area.
- b. To provide neighbourhoods with a distinctive character.
- c. To ensure that street trees and adequate street lighting are provided at the subdivision stage.
- d. To integrate the location of street trees, street lighting, and utility services.

Controls

1. For new residential streets, street trees must be supplied and installed at a minimum rate of one tree every lot (two per corner lot). For new industrial subdivisions, street trees must be supplied and installed at a rate of at least one tree every 20 metres. For new business subdivisions, street trees must be supplied and installed at a rate of at least one tree every 10 metres.
2. Street trees must be located in the road verge where practical. Street trees in the carriageway or median strip are permitted where there is inadequate space in the verge, or where other constraints exist that preclude plantings in the road verge.
3. Street tree location and species must not cause obstruction of the carriageway, vehicle sight distances at intersections. They must not obstruct the efficient movement of vehicles such as garbage trucks.
4. All street tree species must have at least three metres clearance from ground level to the lowest branch when mature.
5. In residential subdivisions, street tree species must be selected to provide summer shading while not impeding solar access in winter.
6. All trees installed must be advanced stock and at least 75L container size.
7. The tree supplier or landscape contractor must provide evidence that all trees generally comply with NATSPEC Guide to Specifying Trees - Assessment of Tree Quality.
8. All trees installed must be established and maintained for a minimum period of 24 months. Any failed trees must be replaced immediately.
9. Street lights must be provided for roads and intersections. Pedestrian crossings and traffic calming devices must also be provided, in accordance with relevant Australian Standards.
10. Appropriate landscape documentation must be prepared and submitted in accordance with Table 4 – Landscape Development Type and Requirements.
11. Landscape documentation must be prepared by appropriately qualified professionals. For Category 3 development, landscape documentation must be prepared by a qualified landscape architect. For Category 2 development, landscape documentation must be prepared by a landscape architect, landscape designer or horticulturist.
12. The landscape consultant's declaration must be signed and submitted with the relevant landscape documentation.

Note: Refer to Council's *Landscape Design Guidelines* for further details and requirements.

Table 4 - Landscape Development Type and Category

Development Type and Category	Landscape Documentation	
	Landscape Concept Plan at DA stage	Landscape Masterplan and Landscape Report at DA stage
Category 3: Large Scale <input type="checkbox"/> subdivision for 50 or more residential lots, or <input type="checkbox"/> subdivision for 10 or more industrial or commercial lots.	Yes	Yes
Category 2: Medium Scale <input type="checkbox"/> subdivision for less than 50 residential lots, or <input type="checkbox"/> subdivision for less than 10 industrial or commercial lots	No	Yes

3.29 COMMUNITY TITLE SUBDIVISION

Objectives

- a. To encourage subdivision which achieves better social, environmental and economic outcomes that would not otherwise be achieved by conventional subdivision.
- b. To provide appropriate access, amenity and siting for all development lots.
- c. To ensure that separate private and communal open areas are provided.

Controls

1. Lot sizes and dimensions must be in accordance with clauses 3.1 to 3.18 of this part of LMDCP 2014.
2. A development site must be identified for each lot. The development site must be an appropriate size and shape to encompass the dwelling and all ancillary uses and structures.
3. Internal access ways and driveways must be designed to clearly indicate their function. They must provide acceptable levels of access, safety, amenity and convenience for users, as well as catering for vehicle parking. Internal access is designed in accordance with Table 5.

Table 5 - Internal Access Ways for Community Title Development

	Type 1	Type 2	Type 3
Maximum design speed	40km/h	30km/h	20km/h
Minimum carriage width	6m	5.5m low speed entrance treatment	5m
Minimum total access way reserve	10m	8m	8m
Minimum shoulder width	1.5m	1m	1m
Nature strip width	1.5m	No	No
Cul-de-sac design for service vehicle	3 point turn	3 point turn	3 point turn
Kerb and gutter	Yes In Business and Residential zones only	Yes In Business and Residential zones only	Yes
Footpath	Yes	Yes	No

Note:

Type 1 – Minor loop road not exceeding 200 metres in length.

Type 2 – Minor loop for vehicular and pedestrian use not exceeding 100 metres in length.

Type 3 – Road for vehicular and pedestrian use not exceeding 50 metres in length

Community Title Subdivisions that have Private roads that exceed the “Type 1” requirements must be designed to meet the standards shown in Table 3 for Public Road standards

4. Ingress/egress to individual lots is not from a public road.
5. Communal open space areas must be distinguished from private open space. Communal open space areas must be designed to meet user needs, and determined by:
 - i. Overall housing density;
 - ii. Their design to ensure non-discriminatory access and use; and
 - iii. The quality and extent of alternative, nearby public open space.
6. The application for community title subdivision development must include a Schedule of Unit Entitlements, a Management Statement, and may also require a Development Contract.

3.30 SUBDIVISION IN RURAL AND CONSERVATION ZONES

The controls in this section are in addition to the controls elsewhere in this part of DCP 2014.

Objectives

- a. To ensure that subdivision in the rural and conservation protection zones protects the natural environment, including water catchments.
- b. To ensure that subdivision protects the character of the location, and does not adversely impact on the agricultural productivity of rural zoned land.
- c. To ensure the adequate servicing and suitable siting of development.

Controls

1. For each proposed lot, a ‘development area’ must be nominated that:
 - i. Contains the dwelling and all ancillary buildings, structures and APZs, and where required, on-site sewage treatment;
 - ii. Is not subject to flooding, landslip, land instability or other unreasonable risks or hazards;

- iii. Minimises the need for earthworks and vegetation clearing; and
 - iv. Onsite sewage treatment is suitably located, if no access to reticulated sewer is available.
2. An access corridor to the development site must be identified which:
 - i. Is at a grade that is less than 20%, and minimises the need for earthworks;
 - ii. Is designed and located to minimise clearing of vegetation, and does not adversely impact on views from areas external to the site; and
 - iii. In bushfire prone areas, the access complies with the requirements of the NSW Rural Fire Service's document *Planning for Bushfire Protection*.
 3. Utility Services to the site should be located along the access corridor, and not require additional clearing.
 4. An adequate level and type of utility service must be provided and identified on the Subdivision Plan, with details of how those services will be provided to each lot.
 5. Adequate buffers should be provided between incompatible land uses.

3.31 SUBDIVISION FOR BIODIVERSITY CONSERVATION

Objectives:

- a. To facilitate the subdivision of land for the purposes of biodiversity conservation.

Controls:

- 1 Subdivision of land below the minimum lot size for the purposes of biodiversity conservation must:
 - i. not create the opportunity for an additional dwelling or structure ;
 - ii. not result in the clearing of any additional native vegetation other than native vegetation required to be removed for the long term protection conservation and management of the lot (e.g. perimeter fencing);
 - iii. Ensure that the land is managed in accordance with a plan of management (and/or a management plan) and with sufficient resourcing available to implement the plan of management (and/or management plan);
 - iv. Ensure that arrangements for managing the land are secured in-perpetuity under a legally binding conservation mechanism.

Note: Legally binding conservation mechanisms include biobanking, biocertification, Native Conservation Trust agreements and planning agreements

4 SUBDIVISION CONSTRUCTION

4.1 EROSION AND SEDIMENT CONTROL

Objectives

- a. To ensure that development is designed to avoid and reduce erosion by minimising disturbance, retaining vegetation and reducing the need for earthworks.
- b. To prevent erosion and sediment laden run-off during site preparation, construction and the ongoing use of land.
- c. To ensure that integrated solutions are implemented for the control and treatment of erosion and sediment, using a treatment train approach.

Controls

1. For proposals where the area of soil disturbance is less than 250m², appropriate erosion and sediment control measures must be installed and maintained, in order to prevent pollutants from entering water courses during construction and until 70% ground cover is attained.
2. For proposals where the area of soil disturbance is more than 250m² but less than 2500m², an Erosion Sediment Control Plan (ESCP) must be prepared and lodged, in accordance with the requirements in Council's Erosion and Sediment Control Guideline.
3. For proposals where the area of soil disturbance is more than 2500m², a Soil and Water Management Plan, identifying erosion prevention and sediment control measures must be prepared and lodged, in accordance with Council's Erosion and Sediment Control Guideline.
4. The maximum area of bare earth exposure at any one time should be restricted to 2.5 hectares.

Note: Council may vary the requirements, especially where there is a higher or lower risk of polluting receiving waters. Further information may be required for any site depending on, but not limited to, the calculated soil loss, sediment type and an assessment of site constraints and opportunities.

4.2 AIR QUALITY

Objectives

- a. To ensure that development does not adversely affect air quality beyond the National Environment Protection Measure (Ambient Air Quality) standard for criteria air pollutants.
- b. To ensure that measures are implemented to maintain air quality.
- c. To ensure that odours and emissions do not have an unreasonable impact on the amenity of neighbouring properties, or the health of their occupants
- d. To ensure that odours and emissions do not have an unreasonable impact on public health.
- e. To ensure that emissions do not have an unreasonable impact on natural environment.

Controls

1. An air quality report must be prepared by an air quality/odour expert where a proposed development has the potential to adversely affect air quality. This report must:
 - i. Consider the information provided on Council's Local Air Quality Maps;
 - ii. Address impacts caused by construction and ongoing operation or occupation of the development;
 - iii. Identify emissions, and measures to mitigate the overall impact, and the impact on nearby residences and occupants of other properties especially sensitive receivers; and
 - iv. Be prepared in accordance with the Approved Methods for the Modelling and Assessment of air pollutants in New South Wales and other requirements prescribed in State and Federal legislation.

Note: Council's air quality map is based on modelling air pollution in the local government area and identifies areas where the Criteria Air Pollutants exceed the National Environment Protection Measure (Ambient Air Quality) standard.

4.3 NOISE AND VIBRATION

Objectives

- a. To minimise the generation of noise and/or vibration and to mitigate associated adverse impacts on the amenity of neighbouring properties, their occupants and occupants of the proposed development.

Controls

1. Where proposed development has the potential to produce an adverse noise or vibration impact on occupants of the site or nearby properties, an acoustic and vibration study must be prepared by a qualified consultant and submitted to Council.
2. Any noise or vibration generated by development must not exceed the criteria stipulated in the NSW Industrial Noise Policy or the Noise Guide for Local Government at the property boundary of the noise source, or at a receiving lot boundary.
3. Measures must be implemented to ensure that any noise or vibration generated is not offensive, in accordance with the Noise Guide for Local Government.
4. During construction, the operating noise level of machinery, plant and equipment must comply with the Noise Guide for Local Government.
5. Any noise generating operations and outdoor operations must only occur between 7am and 6pm Monday to Saturday.
6. A suitably qualified acoustics consultant must prepare a Noise Management Plan if construction is proposed to exceed 26 weeks.
7. Council may request at any stage an independent report to confirm that any noise emissions are within acceptable limits; such costs are to be borne by the applicant.
8. Where construction vibration has the potential to damage nearby existing buildings, a dilapidation survey of the buildings must be undertaken before and after the construction works.

4.4 DEMOLITION AND CONSTRUCTION WASTE MANAGEMENT

Objectives

- a. To reduce demolition waste by maximising beneficial reuse of infrastructure, buildings and materials onsite.
- b. To avoid creating construction waste wherever possible.
- c. To enable maximum diversion of demolition and construction waste to reuse, recycling or composting.
- d. To ensure that waste management is planned across all demolition and construction stages so that reusable resources and waste can be appropriately and effectively stored and removed safely from site without adverse impacts on local amenity.

Controls

1. For all demolition works, a Demolition Waste Management Plan (WMP) must be prepared and submitted. For all construction works, a Construction WMP must be prepared and submitted. Both plans must be prepared in accordance with Lake Macquarie City Council Waste Management Guidelines, must describe how the proposal avoids creating waste, and how they maximises the reuse and recycling of demolition and construction materials.
2. Waste should be contained within the construction site in a suitably screened area of at least 3.5m² and 1.2 metres high for removal during, or at the completion of, the construction stage. All

demolition and construction stage waste storage areas must be shown on a demolition and construction waste site plan.

3. No waste should be left onsite unless it:
 - i. can genuinely be reused onsite, in which case the materials to be reused must be included in the design;
 - ii. will be used as replacement or spare parts for future maintenance; or
 - iii. can be reused on another authorised part of the property.
4. In order to manage noise levels, collection of waste from the demolition and construction site must only occur during hours approved for construction and demolition work.
5. For staged constructions, a waste management plan must be prepared showing:
 - i. the waste storage locations relating to construction sequencing of the dwellings; and
 - ii. the waste collection locations relating to each construction and occupation stage for both occupants' wastes and separately collected construction wastes, including evidence that waste collection vehicle access and turning space is available at every stage and will not be compromised by parking or unloading of construction-related vehicles or other consequences of construction staging.