



Connell Wagner



Moss Vale Enterprise Corridor Development Control Plan

August 2008



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Moss Vale Enterprise Corridor Development Control Plan 2008

Wingecarribee Shire Council

Adopted 24 October 2012
Reference 25163-002
Amendment 6

AMENDMENTS			
Amendment No.	Description	Adopted by Council	Date Effective
0	Original Document adopted by Council	13 August 2008	27 August 2008
1	Amendment to Figure 3 to reduce biodiversity notation over Lot 4 DP 623038 & Lot 12 DP 527683	25 March 2009	8 April 2009
2	Amendment to Figure 3 to remove biodiversity constraint notation over Lot 4 DP 623038 & Lot 12 DP 527683	14 October 2009	4 November 2009
3	Re-adopted for consistency with Section 74C of the EP&A Act – one DCP per site	14 July 2010	11 August 2010
4	Amendment to Figures 3 & 4; Amendments to Section 2.4 and 3.3 to update proposed road layout to be consistent with Section 94 Developer Contributions Plan, Amendment to Sections 3.2 (Subdivision), 3.3 (Access & Movement, 3.6 (On-Site Parking), 3.7 (Signage), 3.16 (Flooding) & 3.17 (Waste Minimisation)	13 April 2011	27 April 2011
5	Waste management & Telecommunications	22 August 2012	5 September 2012
6	Front Boundary Landscaping requirement along Berrima Road.	24 October 2012	14 November 2012

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Contents

Section	Page
1. Preliminary	1
1.1 Name of this plan	1
1.2 Land to which this plan applies	1
1.3 Legal status of this plan	1
1.4 Aims of this plan	1
1.5 Variations to the requirements	3
1.6 Definitions	3
2. Development Concept Plan	4
2.1 Introduction – development intent	4
2.2 Land Use Areas and Precincts	4
2.3 Potential Constraint Areas	9
2.4 Access and movement	9
2.5 Services infrastructure	11
2.6 Rail Infrastructure	11
3. Development controls	12
3.1 Land use	12
3.2 Subdivision and lot design	12
3.3 Access and movement	14
3.4 Building siting and design	15
3.5 Energy efficiency	18
3.6 On-site parking and loading facilities	19
3.7 Signage	21
3.8 Fencing	22
3.9 External lighting	22
3.10 Landscaping	23
3.11 Utility services	24
3.12 Biodiversity conservation	25
3.13 Heritage protection	26
3.14 Noise	26
3.15 Air quality	27
3.16 Flood-prone land and stormwater management	28
3.17 Waste management	29
Part 4 Appendix One	31
MOSS VALE ENTERPRISE CORRIDOR – ROAD CLASSIFICATION SYSTEM AND ACCESS RULES	31
Part 4 Appendix Two	36
SIGNAGE (FROM SECTION 3.7)	36
Part 4 Appendix Three	53
FLOOD-PRONE LAND AND STORMWATER MANAGEMENT	53
Part 4 Appendix Four	70
TELECOMMUNICATIONS AND RADIOCOMMUNICATIONS INFRASTRUCTURE	70

1. Preliminary

1.1 Name of this plan

This plan is the Moss Vale Enterprise Corridor Development Control Plan 2008.

1.2 Land to which this plan applies

This plan applies to land known as the Moss Vale Enterprise Corridor identified on the Land Application Map.

1.3 Legal status of this plan

This plan has been made pursuant to Division 6 of the *Environmental Planning and Assessment Act 1979* and Part 3 of the *Environmental Planning and Assessment Regulation 2000*.

Wingecarribee Shire Council adopted this plan on 13 August 2008 and the plan came into force on 27 August 2008.

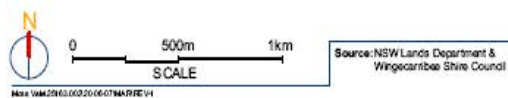
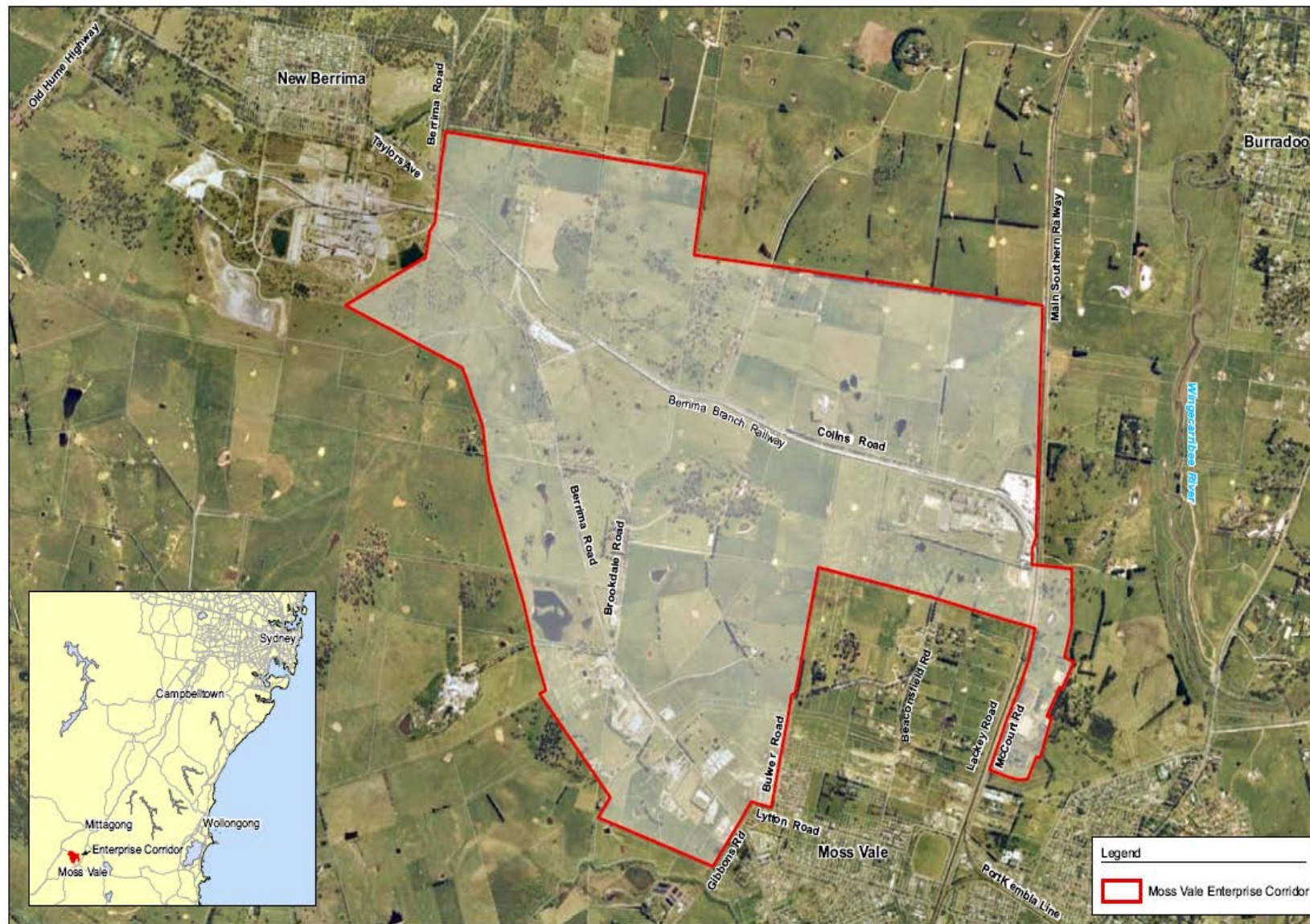
- Amendment 1 (adopted 25 March 2009) modified the Biodiversity Constraint Mapping contained in Figure 3.
- Amendment 2 (adopted 14 October 2009) removed the biodiversity constraint notation over Lot 4 DP 623038 & Lot 12 DP 527683 in Figure 3
- Amendment 3 (adopted 14 July 2010) re-adopted the Moss Vale Enterprise Corridor DCP to be consistent with Section 74C of the Environmental Planning & Assessment Act, 1979 (one DCP applying to any site).
- Amendment 4; Amendment to Figures 2, 3 & 4; Amendments to Section 2.4 and 3.3 to update proposed road layout to be consistent with Section 94 Developer Contributions Plan and Amendment to Sections 3.2 (Subdivision), 3.3 (Access & Movement, 3.6 (On-Site Parking), 3.7 (Signage), 3.16 (Flooding) & 3.17 (Waste Minimisation) to insert provisions from repealed DCPs.
- Amendment 5; Amendments to page 14, 16 and 22. Amended 3.4 Building setbacks along boundaries on Berrima Road, the Moss Vale Bypass and Arterial Roads to 15 metres, Amendment to Site Development Concepts figure to be consistent with 3.10 Landscaping, widths on property boundaries along Berrima Road, the Moss Vale Bypass and Arterial Roads.

1.4 Aims of this plan

This plan aims to support the provisions of Wingecarribee Local Environmental Plan 2007 and establish more detailed controls on development in the Moss Vale Enterprise Corridor.

The particular aims of this plan are:

- To facilitate the development of the Moss Vale Enterprise Corridor for employment uses.
- To provide a clear framework for development in the Moss Vale Enterprise Corridor.
- To ensure the orderly and proper development of the area.
- To conserve and manage areas of environmental significance.
- To protect important Aboriginal heritage values.
- To provide adequate essential physical infrastructure to service development.
- To ensure development adopts sound urban design and sound environmental management practices.
- To protect the scenic amenity of the Moss Vale area.
- To protect the amenity of surrounding rural and residential areas.



Land Application Map

1.5 Variations to the requirements

The council may consider variations to the development controls set out within this plan. A request for a variation must be accompanied by written justification that outlines the reasons for the variation and demonstrates that the proposed development is consistent with the specific objectives of the control that is sought to be varied.

The council will consider variations to the development controls within this plan where environmental protection and management works are proposed within conservation areas and where prior approval or agreement from the relevant government authorities has been obtained.

1.6 Definitions

This plan adopts the definitions set out in the standard instrument for a principal local environmental plan in the *Standard Instrument (Local Environmental Plans) Order 2006* for words and expressions used in this plan with the exception of the following.

Bio-Banking is defined in the Threatened Species Conservation (Biodiversity Banking) Act 2006. In generic terms, it refers to a scheme of negotiating trade-offs in biodiversity impacts with relevant Government departments and providing a positive impact in another location.

Biodiversity Offsets is a concept referred to in the Working Paper: 'Bio-Banking – a biodiversity Offsets and Banking Scheme' (2006). In generic terms, it means the process of trading off impacts against replacement improvements, including a strategic approach to the location of the improvements.

Development Concept Plan is the set of figures in the DCP (Figures 2, 3 & 4) describing the development constraints and overall development plan for the site.

2. Development Concept Plan

2.1 Introduction – development intent

The Moss Vale Enterprise Corridor is to be developed as a sustainable employment area in accordance with the Development Concept Plan.

The Enterprise Corridor will cater for conventional light and general industrial development to meet local and regional demands for industrial land. It is also anticipated to accommodate business park commercial development and larger scale freight storage and distribution operations associated with existing rail infrastructure and a possible intermodal freight terminal.

Not all of the Enterprise Corridor is suitable for urban development. The area has important environmental and cultural values that must be protected. There are also environmental constraints that must be considered and managed in the future development of the area.

The future development of the Enterprise Corridor for employment uses will require significant investment in services and transport infrastructure over time. The location and nature of essential infrastructure requirements have been determined and associated land requirements identified on the Development Concept Plan.

The Development Concept Plan is described in detail below.

2.2 Land Use Areas and Precincts

Two broad land uses zones are designated – conservation and employment.

The Conservation Area comprises land with significant environmental and heritage constraints. These include:

- Major riparian corridors and flood-prone land.
- Significant vegetation and fauna habitat.
- Sites and areas of Aboriginal cultural significance.

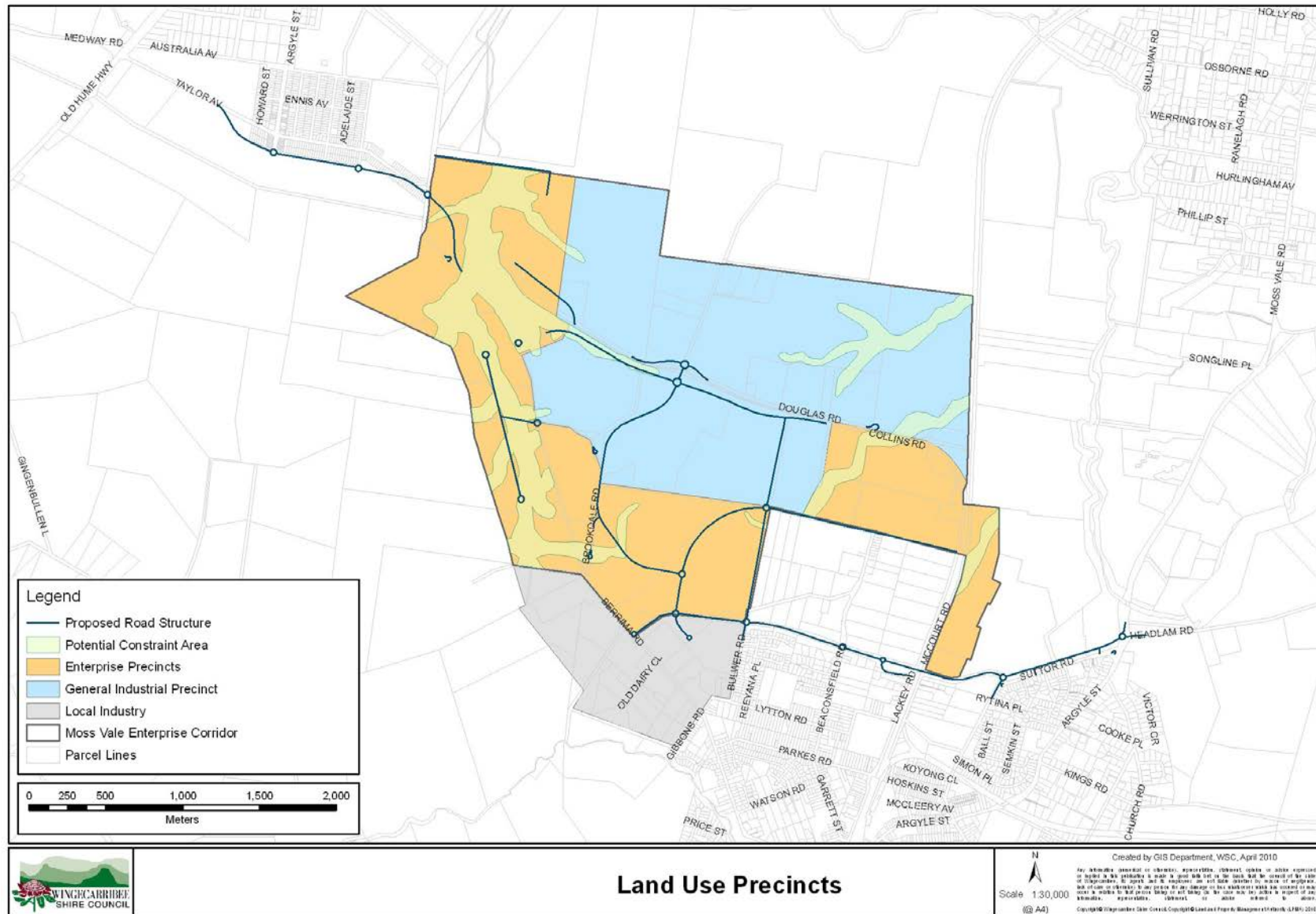
The Employment Area comprises land generally suitable for urban development with appropriate controls. The zone is further divided into two precincts – Enterprise Precinct and General Industrial Precinct.

The Enterprise Precinct includes land at and near the interface with the Moss Vale township and existing light industrial development. This precinct will facilitate a transition between residential uses and heavier industrial uses across the northern parts of the Enterprise Corridor. This precinct will accommodate a mix of light industrial and commercial office uses.

The General Industrial Precinct covers the balance of the employment zoned land and will accommodate a wide range of industrial and warehouse land uses including freight terminal facilities and warehouse and distribution centres.

The Local Industry Precinct is shaded light grey and extends either side of Berrima Road between Bulwer and Gibbons Road and the Moss Vale Saleyards.

Figure 2



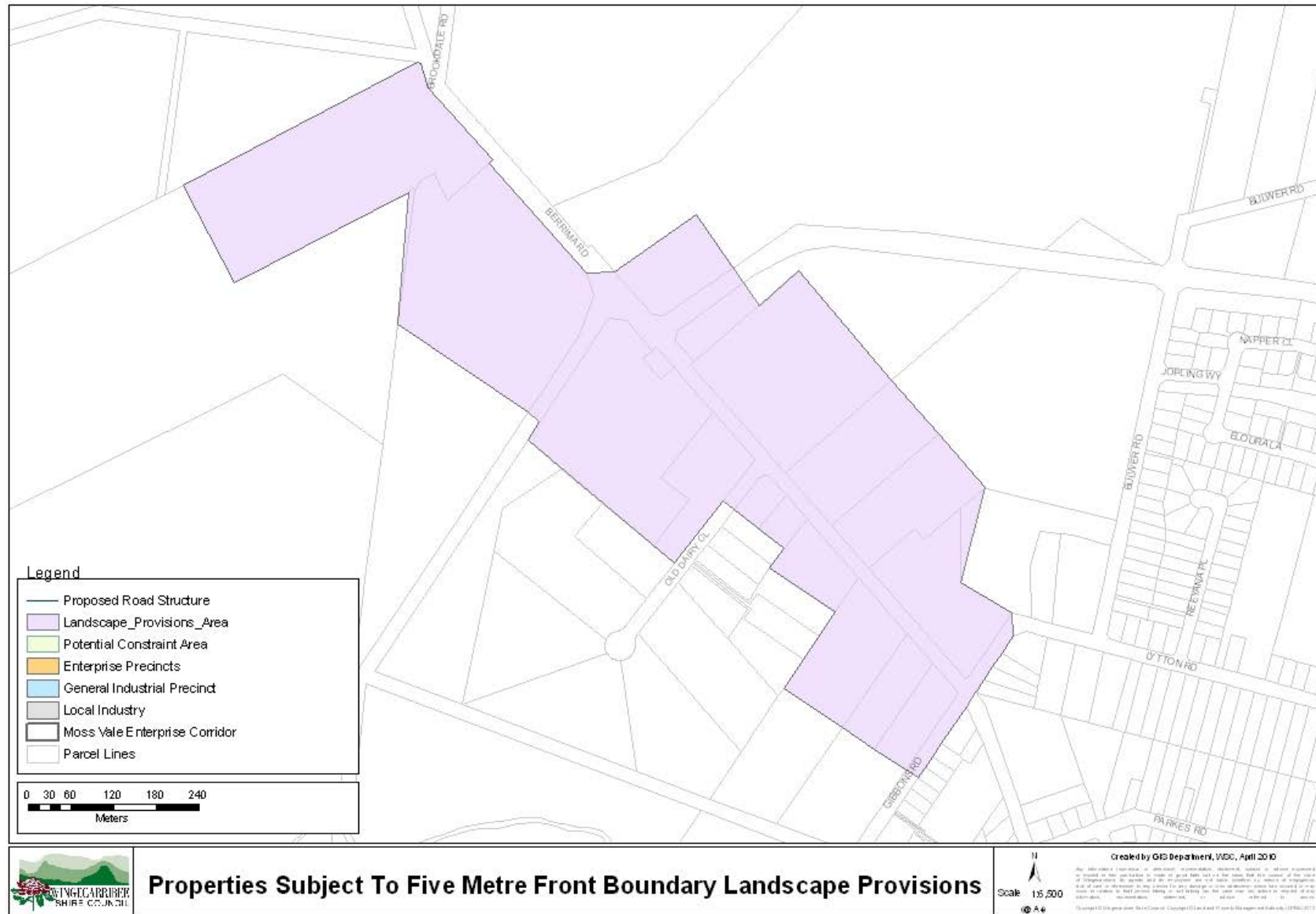


Figure 2a

Figure 3

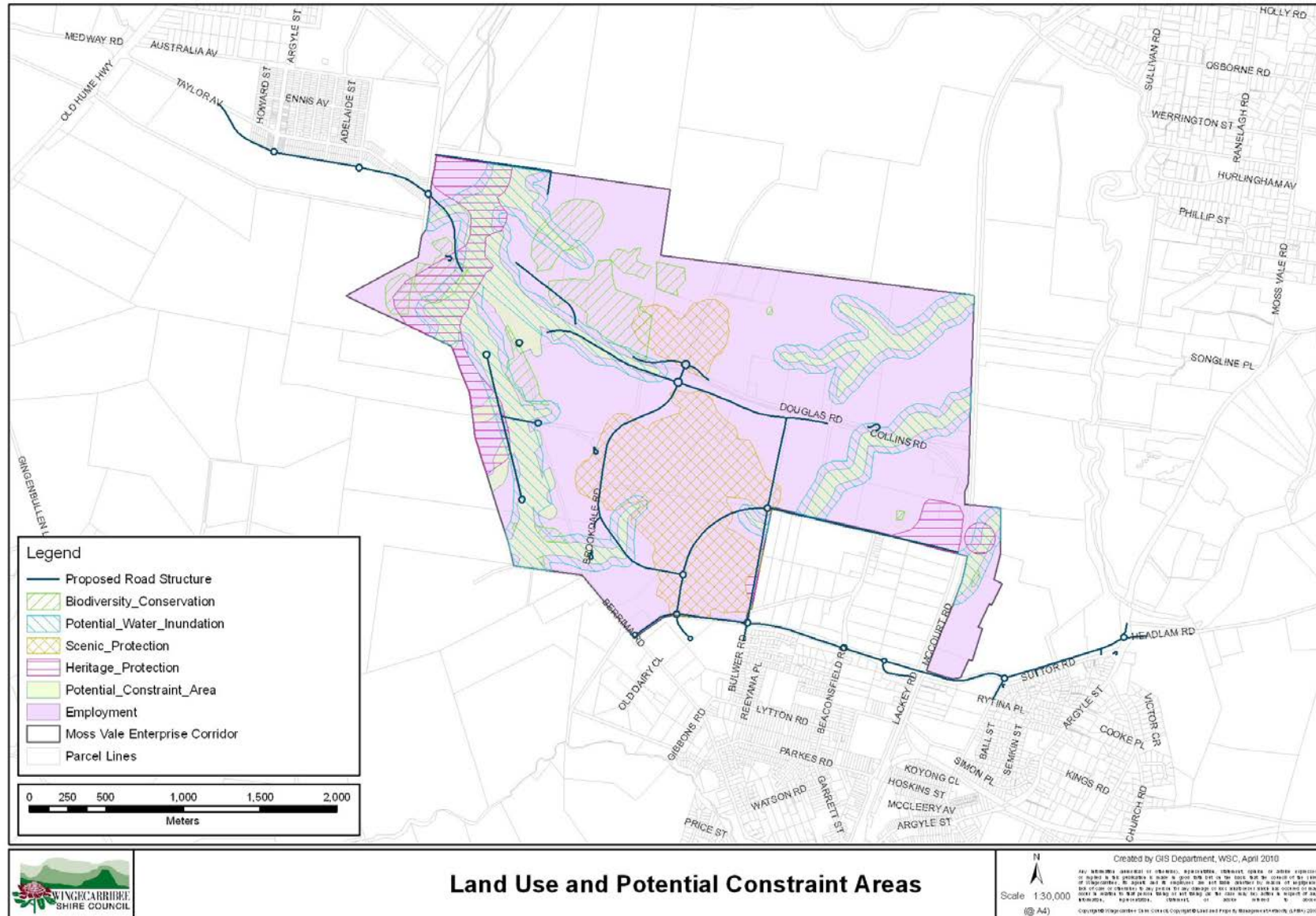
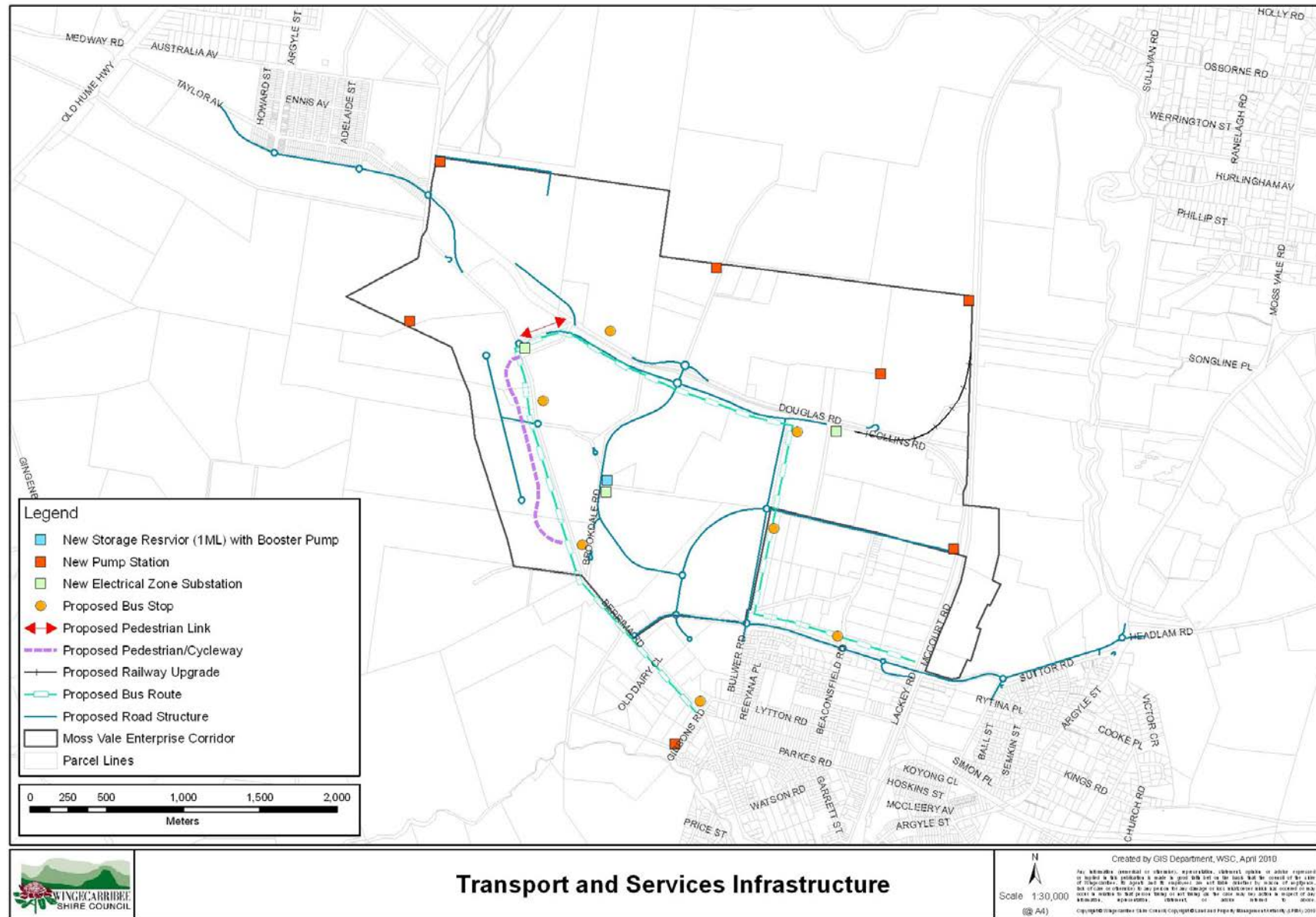


Figure 4



2.3 Potential Constraint Areas

There are environmental and cultural constraints associated with employment zoned land. These are not absolute constraints that preclude development. But rather these represent areas where further assessment and special development controls are required to ensure sustainable development outcomes. These areas are delineated as potential constraint areas. Four potential constraint areas are identified:

- **Biodiversity Conservation**
These areas have some identified conservation value and include open woodland plant communities. Development proposals within these areas will require detailed ecological studies to ensure development has no adverse impacts on significant flora and fauna.
- **Water Inundation**
These areas comprise a 50 metre buffer from the estimated 100 year flood line around major watercourses. This is required as no flood modelling has been undertaken for the area. Development proposals within these areas will require further hydrological assessment to ensure the land is suitable for development.
- **Heritage Protection**
These are areas where predictive assessment indicates there is a likelihood of low to medium density artefact occurrences. Development within these areas has potential to impact on Aboriginal cultural material and further heritage assessment is required to support development proposals.
- **Scenic Protection**
This incorporates elevated and prominent parts of the site above the 690 metre contour. Development proposals within these areas will require careful consideration of visual impact. The land along the Berrima Road corridor and land on the northern edge of the Enterprise Corridor visible from Burradoo are also sensitive areas. These are not identified within the special control area however specific development controls are applicable to protect visual amenity within these areas.

2.4 Access and movement

Roads

A modified and extended major road network will service the Enterprise Corridor (Figure 4). The principal access routes into and through the area will be from the west via Taylors Avenue (and a New Berrima Bypass) from the Hume Highway to Berrima Road and Collins Road and from the east via the Moss Vale Bypass from Moss Vale Road to Berrima Road.

A number of road infrastructure upgrades and new roads are required to facilitate and accommodate future development. These are:

- **Moss Vale Bypass Stages 1, 2 and 3**
The Moss Vale Bypass is part of a long term strategy and a road reserve has been created for this road. It is anticipated that the first stage of the bypass road will be the construction of the Main Southern Rail overpass bridge linking Suttor Road (east of line) to Lackey and Beaconsfield Roads (west of line). Stage 2 will encompass bypassing Suttor Road connecting the over-bridge to Moss Vale Road with a large roundabout. Suttor Road will become a local access Road. Stage 3 will be the connection of Stage 1 to Berrima Road including intersections (roundabouts) to connecting roads.

- **New Berrima Bypass Stages 1 and 2 and Berrima Road Blue Circle Railway Overpass**
The New Berrima bypass Stage 1 realigns Taylor Ave to cater for the future construction of the Berrima Road Blue Circle Railway overpass. Stage 2 of the bypass is a new road to the south of Taylor Avenue with the purpose of relieving the New Berrima Village of heavy traffic. The Blue Circle Railway overpass will be the final stage in this northern link to improve the safety and efficiency of traffic movement.
- **New Road (Enterprise Zone Road) – Parallel and South of Blue Circle Southern Rail Extension**
This new road will be the main collector road at the northern end of the Enterprise Corridor (south of the Blue Circle Rail extension) linking Lackey Road to the east with Berrima Road to the West.
- **Rail overbridge connecting Douglas Road to New Road (Enterprise Zone Road)**
This new bridge is positioned strategically at the highest elevation adjoining the Blue Circle Southern Rail link. The rail line is cut into the landscape at this point reducing the cost of building up the bridge to meet the height distances prescribed by State Rail Authority. The Bridge will link Douglas Road with Enterprise Zone Road. This link will ensure central connectivity through the Enterprise Corridor north and south of the rail extension.
- **Douglas Road Upgrade**
Douglas Road will be upgraded in the early stages of the development of the Enterprise Corridor's development, as it will be the main northern collector road until such time that the rail crossings to its east and west are closed and replaced with a single overbridge as described in the item above.
- **Berrima Road Upgrade**
Berrima Road will be upgraded in stages. As the Enterprise Corridor develops Berrima Road will be one of the main north-south road transport links across the zone linking to the CBD of Moss Vale to the south and to Taylor Ave and the Freeway to the north. Berrima Road will also serve as a main collector road throughout the life of the zone.

The above roads are to be part and fully funded by Section 94 Developer Contributions Plan adopted by Council. It is important to note that development will not be permitted direct access on to these roads. Development will require internal roads to access these major collector roads to ensure limited traffic delays and conflicts between merging and through traffic.

Other internal access roads will be required to service future development, which are shown indicatively in Figure 4. These will need to connect into the identified major road network and provided by developers. The internal roads shown in Figure 4 are only indicative and may vary depending upon the eventual pattern of growth throughout the Zone.

Pedestrian and cyclist movement

Potential pedestrian and cyclist links have been considered as part of the road concept planning. Footways will be provided on all roadways throughout the site. An important pedestrian link has been identified to connect Berrima Road to Douglas Road via the existing Douglas Road level crossing. This pedestrian link should be kept separate to the new road link for safety reasons due to the high volumes of traffic expected at the intersection with the bridge crossing. This would require the establishment of a pedestrian overpass or underpass at the spur line crossing.

Movement for cyclists within the site has been considered and should be adopted as part of the development. It is anticipated that most of the employees within the Enterprise Corridor would live within the surrounding areas and should be encouraged to ride to work as an alternative to use of

vehicles. Cycle pathways 2.5m wide should be incorporated into the verge along all new and existing roads in the zone.

A dual use pedestrian and cycle path is also proposed to extend along the Stony Creek corridor and is shown on the Development Concept Plan.

Bus services

Public transport access will be essential to service the development area and should be convenient and cost effective to encourage employees to avoid using private transport. An indicative bus route and possible locations of bus stops that will provide users with ease of access to their workplaces has been formulated and is shown on the Development Concept Plan.

2.5 Services infrastructure

The future development of the Enterprise Corridor will require major upgrades to existing services infrastructure and significant new infrastructure. In some cases this will require land to be set aside. The location and extent of land required for new infrastructure is identified on the Development Concept Plan and includes:

- New water storage reservoir close to the Berrima Road/New Road No.1 intersection.
- Six new sewer pump stations across the area. These will require 1000 square metres of land each in the locations identified.
- Three new 132kV/11kV electricity zone substations in the identified locations. Each requires a 5,000 square metre square-shaped site.

2.6 Rail Infrastructure

The Moss Vale Enterprise Corridor is currently serviced by a private rail spur, owned and operated by Blue Circle Southern Cement (BCSC), off the Main Southern Railway. This rail spur has the main function of servicing BCSC cement works at the western end of the Enterprise Corridor. BCSC has expressed a willingness to negotiate for the increased capacity of the existing spur line and potentially integrate this additional capacity with a north facing main line connection (a triangle or 'Y' Junction).

The Australian Rail and Track Corporation (ARTC) are the owners of the Main Southern Railway and proposals for connections to this main line must seek their approval.

3. Development controls

3.1 Land use

Objectives	Rules
- To achieve a balanced outcome between industrial development and the conservation of land within the Enterprise Corridor based on legitimate development and constraint data. - To encourage development and the conservation of designated precincts while minimising land use conflict within and between development sites. - Externalities generated by existing heavy industrial uses are recognised as potential constraints to future development. - Land use and development is consistent with the Development Concept Plan. - The land proposed for development is suitable for the intended use.	- The use of land in the Moss Vale Enterprise Corridor must comply with the Development Concept Plan. - Proposed development within the vicinity of existing heavy industrial land uses must demonstrate an understanding of the noise/air and amenity impacts of existing development as part of their development proposal.

3.2 Subdivision and lot design

Objectives	Rules
- Lot sizes are appropriate for the operational needs of the development. - Lot sizes do not result in excessive land fragmentation that would preclude or restrict future development opportunities. - Lots are large enough to protect special natural or cultural features within the lot. - Lot sizes and shapes are appropriate for the physical characteristics of a particular location.	- Subdivision proposals that depart from the below development standards must demonstrate that the proposed lot sizes and dimensions are suitable for the functional and operational needs of proposed site development. - Subdivision design must comply with the requirements set out in Council's <i>Endorsed Technical Specifications</i> (to be endorsed); <i>Design (Vol1)</i> and <i>Construction (Vol2)</i> (to be endorsed). - Lots within the Enterprise Precinct must have a minimum area of 5000 square metres and a minimum primary lot frontage of 30 metres. - Lots within the General Industrial Precinct must have a minimum area of 1 hectare and a minimum primary lot frontage of 50 metres.

-
5. Subdivision proposals must demonstrate due regard has been given to the natural and physical features of the land.
 6. Subdivision proposals must be in accordance with a concept plan for the future development of the entire parent lot.
 7. Lots must be provided with suitable public street frontage and access.
 8. Lots must be connected to essential utility services with capacity to accommodate the demands generated by proposed development.
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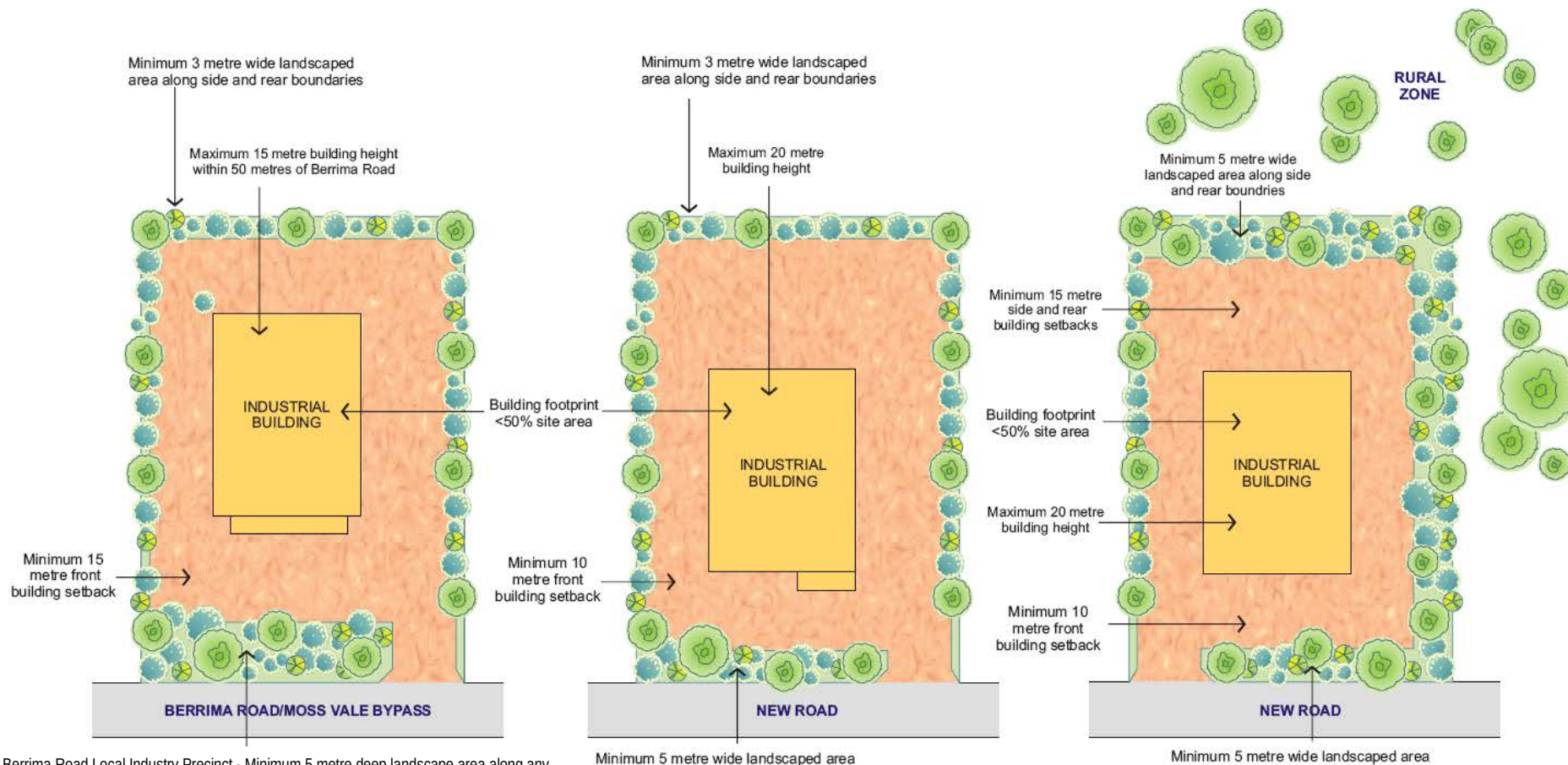
3.3 Access and movement

Objectives	Rules
- An efficient and interconnected road system is established to service the area. - Internal roads are designed to an appropriate standard for industrial traffic. - Site access arrangements do not compromise the safe and efficient generation of the surrounding road network. - Road reserves provide for pedestrian and cyclist movement to increase transport choices and reduce reliance on the private car. - The Enterprise Corridor is serviced by a local bus route to encourage public transport use and reduce reliance on the private car.	- The major road network shall be developed in accordance with the Section 94 Development Contributions Plan. - New internal access roads must be designed with a minimum road reserve of 20 metres and must accommodate pedestrian and cycle facilities. - Intersection treatments are to be designed in accordance with the relevant Austroads guidelines based on a traffic generation determined through a traffic impact assessment for the development. - Direct vehicular access onto the main roads will not be permitted. All development must have access to internal roads. Refer to Road Classification System and Access Rules in Appendix One. - No additional road connections will be permitted to Berrima Road or the Moss Vale Bypass. Refer to Road Classification System and Access Rules in Appendix One. - Access points and connections to the Main Southern Railway must be designed to meet Australian Rail Track Corporation and/or other relevant rail authority's requirements. - Vehicle access arrangements must comply with minimum standards set by applicable Australian Standards in addition to Council's <i>Endorsed Technical Specifications</i> (to be endorsed); <i>Design (Vol 1)</i> and <i>Construction (Vol 2)</i> and must be adequate to meet the needs of the development and associated vehicular traffic.

3.4 Building siting and design

Objectives	Rules
- The bulk and scale of new development is appropriate to the area. - The size and siting of buildings within lots maintains the open rural character of the area. - The siting of buildings ensures that important natural or cultural features within lots are protected. - The bulk and scale of new development does not compromise the scenic amenity of the area. - Development is not visible from public viewpoints along Berrima Road and from surrounding townships. - Buildings are designed to reduce water and energy use. - Buildings are sited and designed to minimise bushfire hazard.	- The height of buildings and other structures located within 50m of Berrima Road must not exceed 15 metres above ground level. - The height of buildings and other structures must otherwise not exceed 20 metres above ground level. - The minimum building setback from any property boundary adjacent to Berrima Road, the Moss Vale Bypass and Arterial Roads is 15 metres. - The minimum building setback from other roads is 10 metres. - The minimum building setback required to side and rear lot boundaries next to rural zoned land is 15 metres. - Front building setback areas must be used for landscaping or staff and visitor car parking. Open storage is not permitted. - Building footprints must not exceed 65% of the total site area. - Development proposed within the Scenic Protection Constraint Area must be accompanied by a visual impact statement prepared by a suitably qualified person. The visual impact statement must demonstrate that the development will not result in a significant adverse visual impact on the surrounding area. - Building materials should be non-reflective and external colours are to be muted earth and bush vegetation tones. Dark colours and large areas of white or vibrant colours are to be avoided. - Building design is to include measures to reduce water and energy use. These measures (including the energy efficiency measures set out in section 3.5 and water conservation measures such as recycling and reuse of treated waste water) are to be documented in a building sustainability statement prepared by a suitably qualified person submitted with the development application.

Objectives	Rules
	11. The siting of buildings and other structures should consider the mature size and height of existing vegetation and proposed landscape treatments to protect assets and occupants. 12. The siting and design of buildings within bushfire prone land must demonstrate compliance with the requirements of <i>Planning for Bushfire Protection 2006</i> published by the NSW Rural Fire Service.



Berrima Road Local Industry Precinct - Minimum 5 metre deep landscape area along any boundary adjacent to Berrima Road
 Moss Vale Bypass and Arterial Road - Minimum 10 metre deep landscape area along any boundary adjacent to Moss Vale Bypass or Arterial Road

Scenario A
Lots fronting Berrima Road, Moss Vale Bypass or Arterial Road

SCENARIO B
Lot fronting internal access road

SCENARIO C
Lot next to rural zoned land

NOT TO SCALE

Site Development Concepts

3.5 Energy efficiency

Objectives	Rules
- Buildings are designed to minimise energy use. - Greenhouse gas emissions from new development are minimised. - The thermal performance of buildings is maximised. - Innovative technologies are incorporated in new developments where possible to reduce ongoing energy use and maintenance costs.	- Building design demonstrates an appropriate response to local climate and to the site and its context. - Passive solar and passive ventilation is incorporated into the design of buildings to minimise reliance on electrical and mechanical systems. - New development must consider building design and operation measures that reduce energy consumption relative to conventional buildings. These measures could include: - use of renewable energy sources such as solar or heat pump water systems - use of renewable or recyclable building materials - insulation of roof and walls to comply with relevant Australian Standards - use of sustainable energy technologies such as photovoltaic cells and co-generation where appropriate - Maximise the use of natural light to internal spaces through window type and location and insulated roof windows. - Use energy efficient (low energy demand) fittings and switches.

3.6 On-site parking and loading facilities

Objectives	Rules
- Adequate on-site vehicle parking is provided for employees and visitors. - On-site loading facilities and vehicle manoeuvre areas are adequate for the operational needs of site development. - Large open hardstand areas are screened and landscaped to reduce visual impact.	- The number of car parking spaces to be provided on site shall be determined in accordance with the Car Parking Schedule below. The number of car parking spaces required shall be rounded up or down in accordance with normal mathematical practise. - The loss of any on street parking as a result of the development including new vehicular entry points or loading zones shall be compensated for by providing on site parking equal to the number of lost spaces. - Council will require the provision of adequate on site turning facilities for commercial vehicles. - Under no circumstances will Council permit the reversing of vehicles onto main or arterial road or future by-pass route. - For the design of off-street commercial vehicle facilities refer to AS 2890.2: 2004 for guidelines. - Loading and unloading of materials and goods must take place within the site. - Loading bays are <u>not</u> to be used for the storage of goods or waste storage other than during the loading/unloading process. - Open parking areas should be designed to incorporate a 2.5 metre wide landscape bay for tree planting every 6 to 8 car bays. - Other open hardstand areas should be screened from public view with appropriate landscape treatments.
Industrial Uses	
Use	Car Parking Spaces
Factory	1 space per 40 sq m of office and showroom area, PLUS 1 space per 100 sq m of gross floor area, or 1 space per 2 employees, whichever is the greater.
Warehouse	1 space per 300 sq m of gross floor area.
Car Repair Station	6 spaces per workshop bay.
Motor Car, Caravan, Boat and Truck Showroom	1.5 spaces per 200 sq m site area PLUS 6 spaces per any workshop bay.
Storage Units	1 space per 500 sq m of storage area PLUS 1

	space per employee.
Neighbourhood Shops	1 Space per 30 sqm of floor area, PLUS a loading facility on site to accommodate a Service Vehicle (up to 8.8 metres in length as defined by Austroads 2008), or Single Unit Vehicle (12.5 metres in length as defined by Austroads 2008) as the minimum standard or may be permitted to utilise a loading zone if it is within 100 metres as measured along the travel path. No use of the loading zone will be permitted where deliveries will require the use of fork lifts, or other mechanically assisted lifting devices on the footpath or crossing a public road or footpath.

3.7 Signage

Objectives	Rules
• The location and size of signage balances business identification needs and visual impact. • The content of signage relates to site development. • The design of signage is integrated with building design.	4.4. Signage shall comply with Appendix 2. 4.4. Signage must be contained within the site and must be limited to information that relates to the use of the site and the name of the premises or occupier. 4.4. The number of signs within a site is to be minimised and sited in accordance with a signage strategy submitted with development applications. 4.4. Signage must be designed as an integral part of site development and building design. Design details must be provided in a signage strategy prepared by a suitably qualified person submitted with a development application.

3.8 Fencing

Objectives	Rules
New boundary fencing is designed to secure development sites without adverse visual impact.	- Transparent or open-style fencing along street frontages is encouraged and should not be located forward of the building line. - The integration of landscaping with fence lines is encouraged. - Fencing details must be submitted as part of a development application.

3.9 External lighting

Objectives	Rules
- Adequate external lighting is provided for operational and security purposes. - Light spill and glare from external lighting does not impact on surrounding properties or compromise road safety. - The design of external lighting minimises visual impact on surrounding areas.	- An external lighting strategy must be submitted with development applications and must indicate the location and design of lighting and the proposed hours of use. - A light spill impact assessment prepared by a suitably qualified person must be submitted with development applications for land located next to rural or residential zones and land within the Scenic Protection Constraint Area.

3.10 Landscaping

Objectives	Rules
• Landscape treatments integrate existing native vegetation within the development site where possible. • Landscape treatments complement the area and create consistent and attractive streetscapes. • Landscape treatments reduce the visual impact of development and enhance the amenity of users. • Water use for maintenance of landscaped areas is minimised.	1. A landscape concept plan prepared by a suitably qualified person is to be submitted with a development application. The landscape concept plan must indicate the location and nature of proposed landscape treatments within the development site including identification of species and mature heights. 2. A minimum 5 metre deep landscaped area is to be established along any lot boundary adjacent to Berrima Road (see Figure 2a) in the Local Industry Precinct. 3. A minimum 10 metre wide landscaped area is to be established along any lot boundary adjacent to the Moss Vale Bypass or Arterial Road. 4. A minimum 15 metre wide landscaped area is to be established along lot frontages to internal access roads and along boundaries with rural zoned land outside the Enterprise Corridor. 5. A minimum 3 metre wide landscaped area is to be established along the side and rear boundaries of a site unless otherwise specified above. 6. The height and density of vegetation within building setback areas must be sufficient to provide effective visual softening to buildings and other structures and open hardstand areas. 7. Landscaping should be integrated with existing native vegetation and should use compatible local native species selected from the council native species list. 8. Strategic landscaping within other parts of the site should be established to provide shade to car parking areas and to soften the appearance of large expanses of hardstand areas. 9. Native plant species should be used for Riparian areas and a mix of exotic and native plants should be used in all landscape areas with emphasis on water-efficient species. The plant species must be

Objectives	Rules
	selected from the council native species list and must be compatible with existing native vegetation within the site.
	10. Reticulated water must not be used for irrigation purposes.

3.11 Utility services

Objectives	Rules
- The Moss Vale Enterprise Corridor is serviced with essential utility services with adequate capacity to meet future demand. - There is adequate land set aside for the provision of essential utility services and associated infrastructure.	- A servicing strategy prepared by a suitably qualified person must accompany development applications for the subdivision of land and must be consistent with the Development Concept Plan. - Lots must be connected to essential utility services before development can proceed. - Utility services must be adequate to meet the demands generated by the proposed development. - A water storage reservoir site may need to be set aside as indicated on the Development Concept Plan. The need for the site will be confirmed by a water modelling exercise and could require an area in the order of 1000 to 2000 square metres. - Six 1000 square metre sewerage pump station sites are to be set aside as indicated on the Development Concept Plan. - Three 5000 sq m electricity zone substation sites are to be set aside as indicated on the Development Concept Plan.

3.12 Biodiversity conservation

Objectives	Rules
- Significant remnant native vegetation is retained. - Threatened plant species and endangered ecological communities are protected. - Threatened fauna species and important habitat and habitat corridors are protected.	- The requirements of relevant biodiversity conservation legislation must be met. - Development proposals within the Biodiversity Conservation and Riparian Constraint Area identified on the Development Concept Plan (Figure 3) must consider the biodiversity conservation value of these areas. - A threatened species assessment for land identified in Figure 3 prepared by a suitably qualified person in accordance with Department of Environment and Climate Change (DECC) guidelines must be submitted to the relevant State Government Agencies (currently Department of Water and Energy (DWE), and the DECC) with any proposals for off-sets and bio-banking. - Targeted surveys for threatened flora and fauna species as identified in the Moss Vale Enterprise Corridor <i>Flora and Fauna Assessment</i> prepared by Total Earth Care Pty Ltd (February 2007) must be undertaken in accordance with DECC and Council guidelines as part of the threatened species assessment. - A Vegetation Management Plan and confirmation of the negotiated agreement with these Departments are required to be submitted with all development applications within the Figure 3 area - The siting of development must consider the presence of remnant vegetation. Mature trees are to be retained where possible. - Watercourses should be retained as natural drainage corridors with suitable buffers where significant. - Remnant native vegetation and conservation areas within development sites must be managed in accordance with an approved Vegetation Management Plan.

3.13 Heritage protection

Objectives	Rules
Sites and artefacts of Aboriginal heritage significance are protected.	- The requirements of relevant heritage protection legislation must be met. - Areas with significant Aboriginal cultural heritage values are to be protected. - Development proposals within the Heritage Constraint Area identified on the Development Concept Plan must consider and assess the potential impact on Aboriginal cultural material. A heritage assessment prepared by a suitably qualified person must be submitted with development applications in these areas.

3.14 Noise

Objectives	Rules
Noise emissions from future development do not adversely impact on surrounding rural and residential uses.	- Development must comply with the requirements of the NSW Industrial Noise Policy and Environmental Protection Authority (EPA) requirements. - A noise impact statement prepared by a suitably qualified person must be prepared for development proposals within 500 metres of a rural or residential zone boundary. The noise impact statement must demonstrate that noise from the proposed development will not result in a significant adverse impact on the amenity of surrounding rural or residential properties based on accepted noise criteria.
Externalities generated by existing heavy industrial uses are recognised as potential constraints to future development.	Proposed development within the vicinity of existing heavy industrial land uses must demonstrate an understanding of the noise impacts of existing development as part of their development proposal.

3.15 Air quality

Objectives	Rules
• Development does not adversely impact on ambient local air quality.	1. Air emissions from development must comply with relevant legislation and EPA requirements.
• Air emissions from development do not cause nuisance or health issues for surrounding properties.	2. An air quality impact statement prepared by a suitably qualified person must be submitted with a development application for development proposals with the potential to generate significant air pollutants such as odour or particulates.
• Externalities generated by existing heavy industrial uses are recognised as potential constraints to future development.	3. Proposed development within the vicinity of existing heavy industrial land uses must demonstrate an understanding of the air impacts of existing development as part of their development proposal.

3.16 Flood-prone land and stormwater management

Objectives	Rules
- Flood-prone land is protected from development. - The risk to life and property due to flooding is not increased by development. - Stormwater is managed on-site to ensure post-development runoff does not exceed pre-development levels. - Development does not adversely impact on water quality in local watercourses. - Sustainable development practices form part of the stormwater management strategy for site development.	- Flood-prone land is incorporated into the conservation zone delineated on the Development Concept Plan. - Development proposals on land within the Water Inundation Constraint Area as identified on the Development Concept Plan must be accompanied by a flood assessment. The assessment must demonstrate the land is suitable for development and that development will not increase the potential for downstream flooding. - Development shall comply with the requirements of Appendix 3. - A stormwater management plan prepared by a suitably qualified person must be submitted with development applications. The plan must address the requirements set out below: - A minor drainage system collecting runoff from roads and hardstand areas must be provided. This shall include a pipe drainage system designed for a 1 in 20 year storm event. - Overland flow paths to accommodate flows in excess of the 1 in 20 year storm and up to the 1 in 50 year storm event must be provided. - Detention basins to limit post-development flows to pre-development flows for all storm durations. - Details of water quality devices to ensure pollutants do not contaminate water leaving the site. - Sustainable development and water sensitive urban design measures proposed. - An erosion and sediment control plan must accompany development applications. This must detail measures proposed to prevent soil erosion and sediment transport. - Stormwater management facilities should be integrated with conservation areas or proposed landscape areas where possible.

3.17 Waste management

Objectives	Rules
- To minimise the volume of waste generated during demolition and construction phases of development. - To promote demolition and construction techniques which maximise recycling and reuse opportunities of waste materials. - To minimise the volume and type of waste going to landfill. - To avoid illegal dumping of waste across Wingecarribee Shire. - Waste minimisation and management practices are implemented in new developments.	Prior to Construction - A Waste Management Plan is required for all demolition works and /or construction works (with a value greater than \$50,000). - Consideration must be given to re-using existing materials, or parts thereof, on the subject site for the proposed use. - Applicants must demonstrate a commitment to waste minimisation by completing a Waste Management Plan that will minimise material going to landfill. - The Waste Management Plan must address the following requirements (as a minimum): - Volume and type of waste, land fill and recyclables to be generated. - Storage and treatment of waste and recyclables onsite. - Facilities proposed to receive residual waste and recyclables. - Where the building contains asbestos, Council will ask for verification of the disposal technique used, the amount removed and the disposal location for the asbestos materials. This documentation will need to be submitted within 7 days of off site disposal. - Receipts from the disposal of residual waste and recyclables are required to be retained by the applicant in order to confirm the lawful disposal of these materials.
	During Construction - Construction activities are to be managed so that waste is sorted, reused or recycled, where possible. Potentially windblown rubbish such as foam, cardboard or plastic must be stored on the site within a receptacle with a tight fitting, secure lid. - Any fill removed from the site shall only be placed on an approved waste disposal facility and as detailed in the Waste Management Plan. - It is not acceptable to dispose of all waste material generated from

construction to landfill. Instead, applicants must demonstrate a commitment to waste minimisation. The Waste Management Plan must demonstrate implementation of the following during construction (as a minimum):

- Installation of waste storage receptacles, and
- Sorting of waste into material types.

10. Receipts from the disposal of residual waste and recyclables are required to be retained by the applicant in order to confirm the lawful disposal of these materials.

A Waste Management Plan Template is available at Council or on Councils website as part of the land use application forms.

Part 4 Appendix One

MOSS VALE ENTERPRISE CORRIDOR – ROAD CLASSIFICATION SYSTEM AND ACCESS RULES

Moss Vale Enterprise Corridor – Road Classification System and Access Rules

The road system within the Moss Vale Enterprise Zone and the key roads connecting it to the surrounding network, has been proposed to meet the requirements of movement and access in a safe and efficient manner. The long term strategic road layout and classification system is shown on Plan 2080-CLASS.

Traffic network modelling and intersection analysis has been undertaken to ensure that the proposed road network will operate with efficiency (to at least Level of Service C, or better, at 2031 projected volumes), especially at all key intersections, most of which are proposed single or dual land roundabouts.

The proposed network has been developed to provide efficient access between all parts of the Enterprise Zone and the surrounding network, favouring access to the Hume Freeway via Berrima Road and Taylor Ave. the network will be physically developed, progressively, mostly determined as traffic volumes increase “triggering” efficiency improvements.

The proposed system is a Functional Road Hierarchy system based on the hierarchy model outlined in the RTA Road Design Guide Section 1.2 “*Functional Road Hierarchy in an Urban Area*”. Other systems may have similar terminology, however if applied to this system, may result in inconsistencies. Thus the classification system adopted for the Moss Vale Enterprise Corridor meet the Road Classification Terms as outlined in the RTA Guide, Sec. 1.2.2.

In order to ensure that the system meets both existing and long term demands, and functions as efficiently as possible, serving both the wider network and individual development requirements, adherence to the rules of access is essential.

Several key components must be diligently adhered to in order to ensure maximum efficient functionality for both current and future demand. The system relies upon efficiently designed and constructed key intersections and arterial and sub-arterial roads. The most critical threat to ensuring ongoing efficiency is allowing compromises to individual property access, which may be a tempting option, especially in the early stages of development. It is essential that access requirements, as outlined below, on or near these facilities are upheld at all stages of the development of the Enterprise Corridor, regardless of when each individual development may occur.

In accordance with the Road Classification system outlined in the RTA “Road Design Guide” Section 1.2.2, the following access restrictions are:

1. **Arterial Road – Berrima Road – MR 372**, from the intersection with the proposed Moss Vale Bypass and the intersection with Taylor Avenue. Any proposed access will be denied. Where existing access points exist, initially they may be treated to ensure ongoing safety and efficiency, however should the property that has access should be part of a redevelopment, then that access will be closed and alternative access via an existing or proposed internal local or collector road must be pursued. In cases where this may be proven (to the satisfaction of Council and the RTA) to be impractical, then high level access intersection treatments may be required to ensure the long term objectives are met.
2. **Arterial Road – Taylor Avenue – MR 372**, from the intersection of Berrima Rd to approximately 100m west of the intersection with Howard St. Existing Access to properties to be maintained. All future developments will have access denied where alternative access can be gained from a side road. In the longer term, upon completion of the New Berrima Bypass, this restriction can be removed and the road then reclassified to a collector road.
3. **Arterial Road – proposed New Berrima Bypass** (from the intersection of Berrima Road to approximately 370m west of the intersection with Howard St). Any proposed access will be denied. All access will be via proposed roundabouts along the route as shown on Plan 2080-

CLASS. It is expected that the New Berrima bypass, upon completion, will be reclassified to MR 372.

4. **Arterial Road – Taylor Ave – MR 372**, between approximately 370m west of the intersection with Howard St and to approximately 300m west of the Hume Freeway Sydney on-ramp on Medway Rd. Any proposed access will be denied. Where existing access points exist, initially they may be treated to ensure ongoing safety and efficiency, however should the property that has direct access become part of a redevelopment, then that access will be closed and alternative access via an existing or proposed internal local or collector road must be pursued. In cases where this may be proven (to the satisfaction of Council and the RTA) to be impractical, then high level access intersection treatments may be required to ensure the long term objectives are met.
5. **Sub-Arterial Road – proposed Enterprise Zone Road** (from the intersection of Berrima Road to the proposed intersection of Carribee Road. Any proposed access will be denied. Where there are existing access points, initially they may be treated to ensure ongoing safety and efficiency, however should the property that has access be part of a redevelopment, then that access will be closed and alternative access via an existing or proposed internal local or collector road must be pursued. In cases where this may be proven (to the satisfaction of Council and the RTA) to be impractical, then high level access intersection treatments may be required to ensure the long term objectives are met.
6. **Sub-Arterial Road – proposed Moss Vale Bypass** (between Berrima Road and Moss Vale Road). Any proposed access will be denied. All access will be via proposed roundabouts along the route as shown on Plan 2080-CLASS.
7. **Sub-Arterial Road – Berrima Road**, heading north, between the intersection with Taylor Avenue and a distance of approximately 500m.
8. **Sub-Arterial Road – proposed link road** between the Moss Vale Bypass and Lackey Road. Any proposed access will be denied.
9. **Collector Road – Douglas Road** between the western and eastern rail level crossings. Access is permitted in accordance with WSC Endorsed Policy (formerly DCP 41, prior to 16 June 2010), with the exception to approaches to the proposed roundabout at the intersection of Douglas Rd to Carribee Rd for a distance of approximately 100m on each approach. Note: specific restrictions will need to be reviewed on a case by case basis and early discussion with Council is required.
10. **Collector Road – Lackey Road/Collins Road** between the proposed Moss Vale Bypass link road intersection to the extension of Collins Road intersecting with the proposed intersection with the Carribee Rd extension. Access is permitted in accordance with WSC Endorsed Policy (formerly DCP 41, prior to 16 June 2010), with the exception to approaches to the proposed roundabout at the intersection with Carribee Rd extension for a distance of approximately 100m on each approach. Note: specific restrictions will need to be reviewed on a case by case basis and early discussion with Council is required.
11. **Collector Roads – General** – possible future internal road conveying traffic from local roads and local cul-de-sacs. Access is permitted in accordance with Endorsed Policy (formerly DCP 41, prior to 16 June 2010), with the exception to approaches to the proposed roundabouts throughout the Enterprise Zone, a distance of approximately 100m on each approach will be applied. Note specific restrictions will need to be reviewed on a case by case basis and early discussion with Council is required.

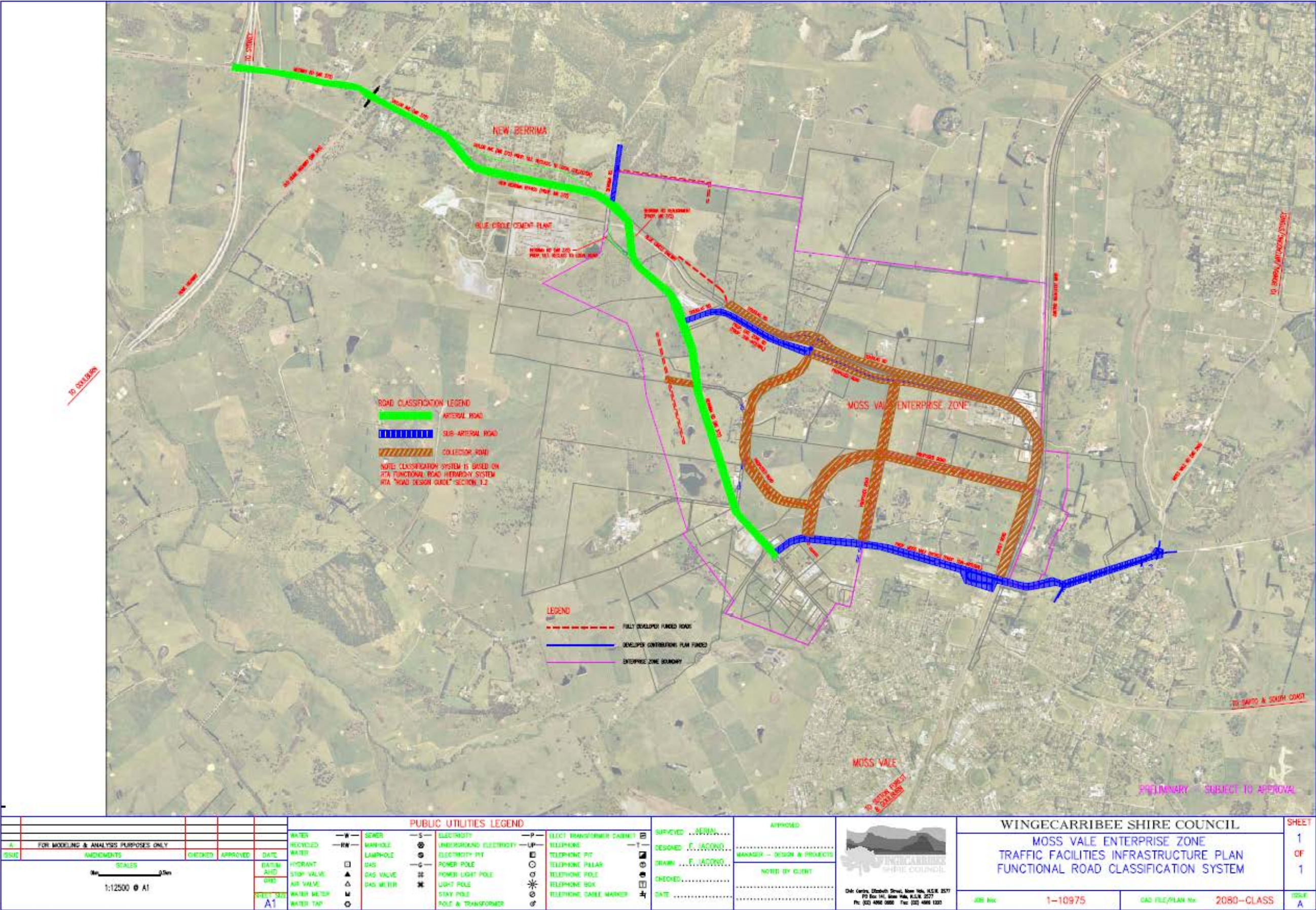
The alignment and location of these roads as shown on Plan 2080-CLASS is approximate only and will be dependant on future investigations by individual developers. It must be noted

that the location and number of intersections with the Arterial and Sub-arterial roads, as shown on Plan 2080-CLASS will not alter (however precise location is subject to final survey, design and investigation).

A degree of freedom is available for the final design and location of the internal road network. However, proposals must be discussed with Council prior to commencement of detailed design and plan preparation to ensure that connectivity throughout the ZONE facilitates inter zone connectivity and efficiency.

12. **Local Roads – possible future internal roads**, the primary purpose of which is to provide access to developments conveying traffic from local roads and local road cul-de-sacs. Access is permitted in accordance with Endorsed Policy (formerly DCP 41, prior to 16 June 2010). Proposed local roads are not shown on Plan 2080-CLASS a degree of freedom is available for the final design and location of the internal road network. However, proposals must be discussed with Council prior to commencement of detailed design and plan preparation.

Figure 5 – Plan 2080-CLASS



Part 4 Appendix Two

SIGNAGE (FROM SECTION 3.7)

COUNCIL'S PLANNING OBJECTIVES FOR SIGNS IN WINGECARRIBEE SHIRE

Council Planning Objectives

The appearance of the towns, villages, rural and natural bush lands contribute much towards the definition of Wingecarribee's environmental quality. They are characterised to a significant degree by traditional forms of rural settlement, often with different periods of development still identifiable in a streetscape or the fabric of the landscape.

Signs have a legitimate role to play by;

- providing directions;
- identifying business activities; and
- promoting events etc.

Council expects that signs should have a purpose that directly relates to a function which could reasonably be expected to be carried out in a particular type of neighbourhood. For instance, billboard advertising promoting a particular entertainment event has no clear relationship of purpose to a residential neighbourhood, especially when that event is scheduled to take place outside of the precinct.

Generally, Council has adopted a series of broad planning objectives for signs in Wingecarribee. They are as follows:

- i. "Signs shall complement and be compatible with both the development on which they are displayed and the character of the surrounding locality"¹ in order to make a contribution towards the conservation of the Shire's environmental quality;
- ii. Signs shall not adversely affect the amenity of people who live and work in and visit the Shire, in terms of their "size, appearance, illumination, overshadowing or in any other way"²;
- iii. Signs must add to the visual interest and vitality of industrial localities. Council acknowledges that controls in these areas must embrace a degree of flexibility whilst at the same time not put at risk the prominence of significant buildings, both individually and collectively.
- iv. Signs must be simple, clear and effective in conveying their message and they "should inspire confidence in the business or product being advertised"⁴. Signs shall not comprise objects such as cans, bottles and other three dimensional proprietary and like representations.
- v. Signs shall achieve a high degree of safety and not represent hazards to:
 - passers by;
 - drivers or pedestrians;
 - transport workers;
 - other property;

.....nor be confused with or inhibit instructions given by official traffic management facilities and signs.

- vi. Signs must only appear upon land on which the advertised activity/development is to be carried out, except signage that is permitted under the provisions of Council's *Tourism and Related Signage Policy*.

SIGN DEFINITIONS

There are many different types of signs which vary in their purpose; the nature or content of the message that they seek to convey, and the physical design characteristics of individual sign structures.

Council is not directly concerned with the content of a sign's message, however, the purpose of a sign should be compatible with the relationship that exists between the development (to which the sign relates) and its neighbourhood location.

The extent and nature of environmental impact of a sign structure also significantly relates to its physical design characteristics such as size, form as well as its placement - on a building or in a physical 'space'.

Accordingly, this development control plan sets out to identify opportunities for advertising signs according to their purpose, location and physical design characteristics.

The plan makes a number of important distinctions between the different types of signs as they relate to purpose and physical design. It is very important to understand such distinctions from the outset, so as to be able to interpret the various requirements that sign proposals must comply with, as well as the opportunities and "bonuses" associated with particular types of signs.

1. Sign Types According To Purpose

"Property Address Sign" means:

A sign with a total panel face area not exceeding 0.75 square metres when located in a residential zone; or 1.5 square metres when located in any other zone; that relates to the place to which it is fixed and describes the name and or address of the premises or place; and which is contained wholly within the property to which the sign relates.

"Home Enterprise Sign" means:

A sign with a total panel face area not exceeding 0.75 square metres; which relates to a residential dwelling place to which it is fixed; that displays the identity of any resident therein carrying on an enterprise at that place, and the particulars of any such enterprise; and which is contained wholly within the property to which the sign relates.

"Real Estate Sign" means:

A sign that is an advertisement which contains only a notice that the place or premises to which it is fixed, is or are for sale, auction or letting (together with the particulars of the sale, auction or letting) and that is not displayed for more than 7 days after the letting or completion of the sale, and where such sign:

- relates to residential or rural premises and has a total panel face area of not more than 2.5 square metres (or alternatively two (2) smaller signs which together have a total panel face area of not more than 2.5 square metres);
- relates to commercial or industrial premises with a total panel face area of not more than 4.5 square metres; and
- is contained wholly within the property to which the sign relates, including flush mounting on a building facade.

"Temporary Community Event Sign" means:

A sign containing an advertisement of a temporary nature that announces any local level event of a religious; cultural; political; or recreational character, undertaken for community and not private benefit, or relates to any temporary matter in connection with such an event and does not include advertising of a commercial nature except for the name(s) of an event's sponsor(s) where such a sign:

- takes the form of a banner(s), bunting, flag(s), poster(s) and the like, but does not include inflatable structures;
- must not be displayed earlier than 14 days before the event to which it relates is to take place, and must be removed within 7 days after that event; and
- is located wholly on the land upon which the event is to take place.

“Public Notice” means:

A sign which is a notice for public information displayed by a public authority giving information or directions about services provided by that Authority.

“Business Identification Sign” means:

A sign which represents an advertisement that displays any or all of the following information relating to the place or premises to which it is fixed:

- the identity or description of any person carrying on an occupation at the place or premises, (except a residential dwelling);
- the particulars of any occupation carried on at the place or premises, (except a residential dwelling);
- particulars relating to the goods, commodities, or services dealt with or provided at the place or premises;
- particulars of any activities held or to be held at the place or premises;
- a reference to an affiliation with a trade, professional or other association relevant to the business conducted at the place or premises.

“Business Operation Sign” means:

A sign located below awning level or 4.0 metres in the case of buildings without awnings which relates to the place or premises to which it is fixed that describes:

- such directions or cautions as are usual or necessary relating to the place or premises or any occupation carried on there;
- particulars or notifications required or permitted to be displayed by or under any State or Commonwealth Act.

“Visitor Direction Sign” means:

A sign not located upon the place or fixed to the premises to which it relates, that contains directional and other relevant information regarding tourist facilities, ie Those premises which derive an income (substantially) from visitors to the Shire where such a sign:

- is erected by the Council only;
- complies with *Council's Tourism and Related Signage Policy*;
- complies with the nominated sign objectives for the relevant zone (as described in this plan),
- is located in a properly defined visitor parking/information bay or other relevant and safe location in the road reserve or adjacent land.

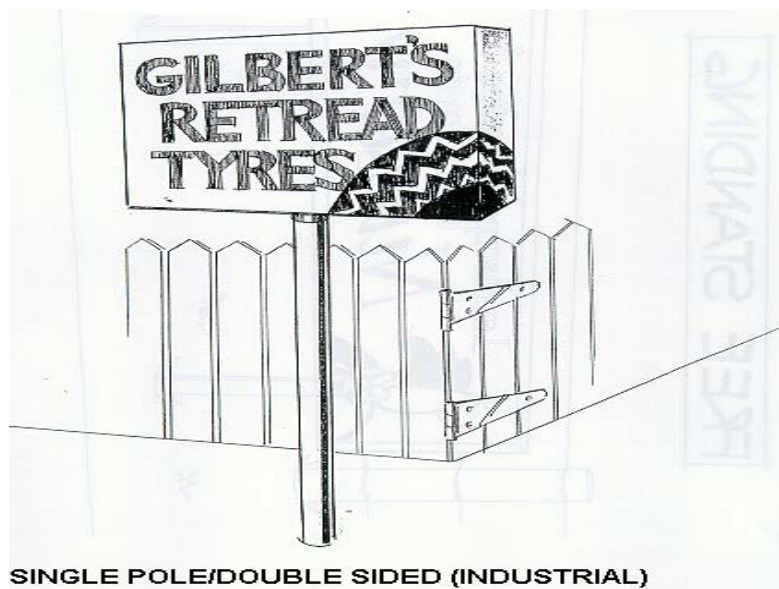
SIGN TYPES ACCORDING TO PHYSICAL DESIGN

FREE STANDING SIGNS

SINGLE BUSINESS



MIXED BUSINESS

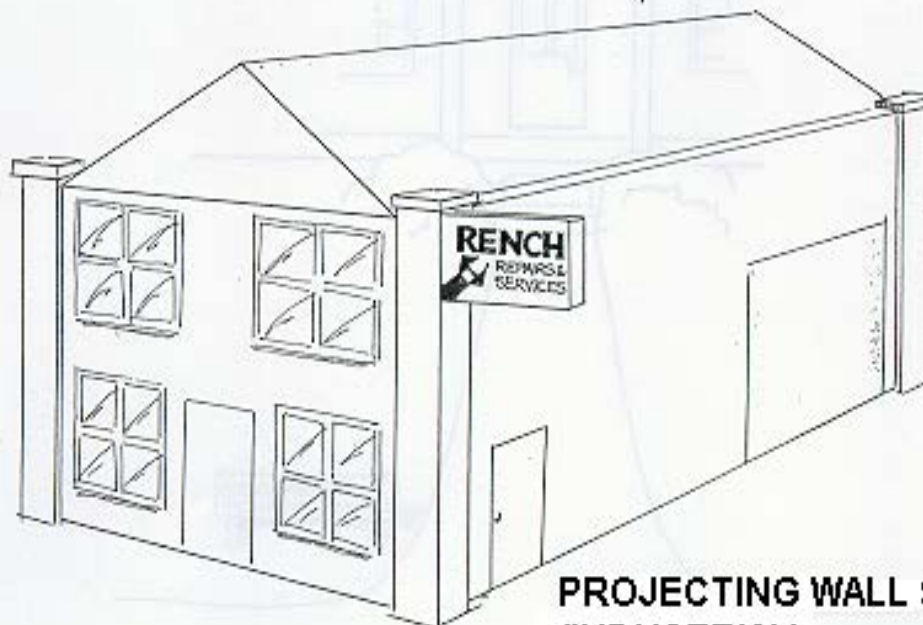
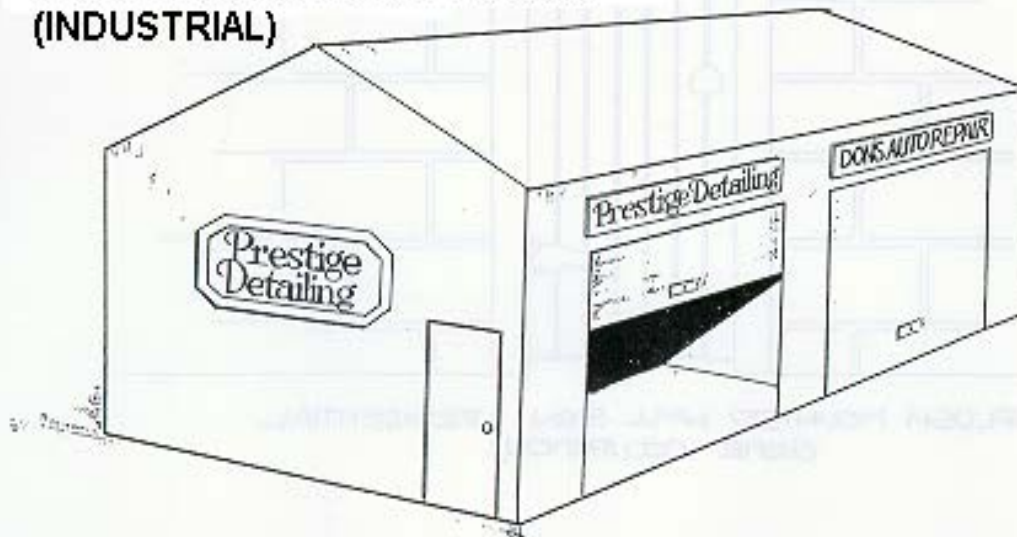


SINGLE POLE/DOUBLE SIDED (INDUSTRIAL)

FREE STANDING

FLUSH MOUNTED

FLUSH MOUNTED WALL SIGNS (INDUSTRIAL)



PROJECTING WALL SIGN (INDUSTRIAL)

PROJECTING WALL SIGN

DESIGN PRINCIPLES FOR SIGNS

- ⇒ Signs shall be simple in both their design and message presentation.
 - ⇒ A sign should reflect the quality of the business services or product to which it relates.
 - ⇒ Signs should not attempt to convey too much information, thus becoming confusing to interpret and rendering them as an ineffective means of advertising.
 - ⇒ Signs should achieve 'balance' by not changing the shape/form of a building but fit opportunities and spaces made available by a building or space.
 - ⇒ Signs should be finished in contrasting colours so that the sign is legible and can be read by its target observer.
 - ⇒ Sign colour should relate to the finishes and colours of the building/place to which it is attached/erected.
 - ⇒ Signs on or attached to buildings should relate to the architectural design lines on a building and adjacent buildings (where appropriate) eg align with window heads and sills.
 - ⇒ Attempt to design and finish signs that become an architectural feature in their own right, complementing the character of buildings and the streetscapes/landscapes.
 - ⇒ Determine the most effective and appropriate opportunities for sign(s) on the respective building or land, bearing in mind the types of signs permissible within different zones and circumstances set out in this plan.
 - ⇒ Select the type of sign (according to physical design) which best suits your needs and Council's requirements, being careful not to 'overwhelm' the architectural character of a building or the landscape/streetscape character of a place.
-

ASSESSMENT CRITERIA (FROM SEPP 64)

There are a number of mandatory criteria which all signs (irrespective of their type, location, size, design etc) must satisfy. The following criteria are specified in State Environmental Planning Policy No. 64 and will be applied in the assessment of all signage.

Assessment Criteria

1. Character of the area

- Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?
- Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?

2. Special areas

- Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential area?

3. Views and vistas

- Does the proposal obscure or compromise important views?
- Does the proposal dominate the skyline and reduce the quality of vistas?
- Does the proposal respect the viewing rights of other advertisers?

4. Streetscape, setting or landscape

- Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?
- Does the proposal contribute to the visual interest of the streetscape, setting or landscape?
- Does the proposal reduce clutter by rationalising and simplifying existing advertising?
- Does the proposal screen unsightliness?
- Does the proposal protrude above buildings, structures or tree canopies in the locality?

5. Site and building

- Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?
- Does the proposal respect important features of the site or building, or both?
- Does the proposal show innovation and imagination in its relationship to the site building or both?

6. Associated devices and logos with advertisements and advertising structures

- Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?

7. Illumination

- Would illumination result in unacceptable glare?
- Would illumination affect safety for pedestrians, vehicles or aircraft?
- Would illumination detract from the amenity of any residence or other form of accommodation?
- Can the intensity of the illumination be adjusted, if necessary?
- Is the illumination subject to a curfew?

8. Safety

- Would the proposal reduce the safety for any public road?
- Would the proposal reduce the safety for pedestrians or bicyclists?
- Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?

9. Duration of Council Approval

Where signs require Council approval, the approval or consent is to be for a 15 year duration only, as required by *State Environmental Planning Policy No. 64 – Advertising and Signage*. Council may consider approval for a lesser period of time if:

- a) the area in which the advertisement is to be displayed is undergoing change in accordance with an environmental planning instrument that aims to change the nature and character of development and, in the opinion of Council, the proposed advertisement would be inconsistent with that change, or
- b) the specification of a lesser period of time is required for certain signage pursuant to *State Environmental Planning Policy No. 64 – Advertising and Signage*.

SIGNS THAT DO NOT REQUIRE COUNCIL APPROVAL

Approval is not required under Council's provisions or under *State Environmental Planning Policy No.64 – Advertising and Signage* for the following advertising structures, signs and displays, with the *exception* of items of environmental heritage or within Heritage Conservation Areas.

Group A: Minor advertising structures and signs relating to all land in Zones IN1, IN2 & IN3	The erection of an advertising structure and the display of an advertisement on it or the display of an advertisement that is not affixed to an advertising structure, in any of the following cases: (1) a property address sign being a sign with a total panel face area not exceeding 0.75 square metres when located in a residential zone or 1.5 square metres when located in any other zone, that relates to the place to which it is affixed and describes the name or address of the place, but only if such development: (a) is contained wholly within the land to which the sign relates, or is flush mounted to the front fence or front wall of a building, so long as the sign does not protrude beyond the physical limits of that fence or building, and (b) is not illuminated when located in residential or rural premises, and (c) does not result in more than 1 such sign being erected upon the land, and (d) does not result in the sign exceeding a height above natural ground level of 1.8 metres, or (2) a real estate sign, being a sign that contains only a notice that the place or land to which it is affixed is for sale, auction or letting (together with the particulars of the sale, auction or letting) and that is not displayed for more than 7 days after the letting or completion of the sale, auction or lease, but only if such development: (a) is not illuminated when located in residential or rural premises, and (b) (i) where relating to residential or rural premises, has a total panel face area of not more than 2.5 square metres, and when affixed to an advertising structure has an overall combined height not exceeding 1.8 metres above natural ground level, and does not result in more than 1 such sign being erected on the land, or up to a maximum of 2 real estate signs for each residential or rural premises but which together have a total panel face area of not more than 2.5 square metres, or (ii) where relating to non-residential or non-rural premises (but including new subdivided residential allotments in a group of more than 10 such allotments), has a total panel face area of not more than 4.5 square metres, and when affixed to an advertising structure has an overall combined height
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not exceeding 3 metres above natural ground level and does not result in more than 1 such sign being erected on the land, and

- (c) is contained wholly within the land to which the sign relates, or is flush mounted to the front fence or front wall of a building so long as the sign does not protrude beyond the physical limits of that fence or building, or
- (3) a home enterprise sign, being a sign with a total panel face area not exceeding 0.75 square metres which relates to a residential dwelling-house to which it is affixed, that displays the identity of any resident therein carrying on an enterprise at that place, and the particulars of any such enterprise, but only if such development:
- (a) is not illuminated when located in residential or rural premises, and
 - (b) does not advertise any product, and
 - (c) does not result in more than 1 such sign being erected on the land, and
 - (d) is contained wholly within the land to which the sign relates, or is flush mounted to the front fence or front wall of a building so long as the sign does not protrude beyond the physical limits of that fence or building, or
- (4) a public notice, being a sign which is a notice for public information displayed by the Council or another public authority giving information or directions about services provided by the Council or that authority, or
- (5) a business operation sign, being a sign located below awning level no part of which is less than 2.6 metres above finished ground levels or 4.0 metres in height above finished ground level in the case of buildings without awnings, which relates to the place to which it is affixed and that describes such directions or cautions as are usual or necessary relating to the place or premises or any occupation or activity carried on there, or particulars or notifications required or permitted to be displayed by or under any State or Commonwealth Act, but only if such development:
- (a) is not illuminated unless required by or under any State or Commonwealth Act, and
 - (b) does not advertise any product or business name to which it relates.

Group B:
Minor advertising
structures and signs
relating to land in
business and
industrial zones.

Zones IN1, IN2 & IN3

The erection of an advertising structure and the display of an advertisement on it, or the display of an advertisement that is not affixed to an advertising structure, located in a business zone or an industrial zone, in any of the following cases:

- (1) business identification signs, being signs that display an advertisement which relate to the premises upon which they are situated, where affixed to the street facing façade of a building located in a business zone, including:

- (a) an awning fascia sign which is located on the awning face but so long as that sign does not project beyond that face in any direction,
- (b) not more than 1 suspended under verandah or under awning sign or, in the case of buildings without an awning 4.0 metres above finished ground level, for each 10 metres of street frontage or part thereof, and which does not exceed 2.5 metres in length and 0.5 metres in height, and no part of which is less than 2.6 metres above finished ground levels, and
- (c) a sign which is flush mounted upon the façade of the building, below awning level or 4 meters above natural ground level (in the case of buildings without an awning) not being a sign that is affixed to or painted onto the façade below window level, and not being a sign that projects beyond any wall or parapet to which it is attached.

This provision does not permit the erection of any sign:

- (i) located above the awning, or above a height of 4 metres above finished ground level where no awning exists, and
 - (ii) that would result in a total signage area affixed to the front façade or awning of a building of more than 50% of the area of the front elevation of the building upon which the advertising signs are displayed or affixed, or
- (2) **business identification signs**, being signs that display an advertisement which relate to the premises upon which they are situated, where affixed to a building located in an industrial zone, but only where such development:
- (a) is located on land that does not have frontage to a main road, classified as a State or Regional Road, and
 - (b) does not result in more than 1 such sign being erected on the land, and
 - (c) has a total panel face area that does not exceed 5 square metres, and
 - (d) has each panel face framed, and
 - (e) does not exceed a combined height of 4.0 metres above finished ground level in the case of a sign affixed to an advertising structure and does not project beyond any wall or parapet of the building to which it is affixed, or
- (3) **advertisements** and any advertising structure not visible from outside the site on which they are displayed, or
- (4) **advertisements** located behind the glass line of the window of a shop, commercial premises or other lawful premises, or
- (5) **advertisements** that replace existing lawfully displayed signs or advertising structures.

REQUIREMENTS FOR SIGNS THAT DO REQUIRE COUNCIL APPROVAL

This section applies to all land zoned Industrial IN1, IN2 & IN3 in the Wingecarribee Local Environmental Plan 2007.

1. Objectives For Signs In Industrial Zones

- A. Signs in industrial zones shall seek to improve the presentation of industrial development to assist in making individual premises easier to identify by avoiding visual confusion from sign clutter. Ensure that signs:
- do not dominate building facades of industrial development;
 - are in scale with associated buildings and/or the space in which signs are positioned; and
 - complement the landscape setting of development.
- B. Signs in industrial zones associated with multiple site occupancy (like for eg Industrial Unit Complexes) shall achieve a co-ordinated approach to advertising by means of appropriately located and 'sized' Directory Facilities.

2. Signs That Are Prohibited In Industrial Zones

- Any off-site signage including any advertising attached to a trailer, motor vehicle or the like deliberately parked on a road or reserve for more than one day in any one month period.
- Advertising objects (not being an approved two dimensional sign) including inflatable objects.

3. Signs That Require Council Approval In Industrial Zones

The Shire Plan allows Council to grant planning approval to the following types of signs, upon receipt of a properly prepared development application:

- Visitor Direction Signs
- Bunting and Flags (other than the Australian and/or a recognised civic/service flag) excepting those associated with Temporary Community Event Signs.
- Temporary Community Event Signs
- Business Identification Signs (other than those which are exempt)
- Real Estate Signs (other than those which are exempt)
- Property Address Signs (other than those which are exempt)

4. Special Requirements For Signs In Industrial Zones

For signs that require planning approval, the following special requirements must be satisfied:

Business Identification Signs

- Requirements For Premises/Properties Fronting A State/Regional Road

i. Number of Signs

A total maximum number of two (2) Business Identification Signs (including any signs which do not require development consent) shall be permitted in respect of each approved development in an industrial zone where properties have frontage to a State/Regional Road. This does not include Multiple Occupancy Provisions. See page 28.

ii. Form, Size and Location of Signs

Business Identification signs in industrial zones, on land having frontage to a State/Regional Road may take the form of either:

a. A single or double sided freestanding and framed sign panel where:

- sign panels are located within an overall sign structure 'envelope' with dimensions not exceeding:

height: 4.5 metres
width: 2.5 metres
depth: 300mm

OR ALTERNATIVELY

- sign panels are located within an overall sign structure 'envelope' with dimensions not exceeding:

height: 1.5 metres
width: 4.5 metres
depth: 300mm

- no part of the sign structure overhangs Council's footpath nor the public road reserve.
- the sign panel is supported by 'simply designed' pole supports, avoiding large exposed supporting frameworks, unless in the opinion of the Council such framework is intentionally designed as an architectural feature.

NOTE:

A maximum of 1 X freestanding/framed sign shall be located within 20 metres of the main road alignment.

OR

- b. A sign flush mounted on a relevant wall of a building in an architecturally compatible manner, where the sign panel is either framed or painted; does not exceed 5 square metres in area; and does not protrude beyond the parapet nor any wall.

NOTE:

Council may consider a proposal for two (2) smaller flush signs mounted on the wall of a building in lieu of one X 5 square metre (face panel) wall mounted sign, where each panel face of the two (2) smaller signs does not exceed 2.5 square metres in area.

Approval of this alternative (optional extra sign) depends upon the architectural compatibility of the sign proposal and will only be approved under circumstances where in the opinion of the Council, the overall sign proposal for the site satisfies the objectives for signs in industrial zones.

OR

- c. A sign projecting from a wall or suspended under a verandah or awning which may be double sided and:

- achieves a minimum clearance above ground level of 2.6 metres.
- does not protrude beyond any building parapet or vertical limit of the wall to which it may be attached.
- has a maximum area of 2.5 square metres in respect of each sign panel face.
- does not overhang Council's footpath or any public road reserve.

NOTE:

A maximum of one (1) sign projecting from a wall or suspended under a verandah or awning is permitted.

NOTE:

Proposals for flags associated with approved development on properties having frontage to a Main Road shall be treated on their individual merits and must satisfy the objectives for signs in industrial zones and not be a risk to neighbourhood amenity.

- Requirements For Premises/Properties Having Frontage To A Road That Is Not A State/Regional Road.

i. Number of Signs

A total maximum number of two (2) Business Identification Signs shall be permitted in respect of each approved development in an industrial zone where properties have frontage to a road other than a State/Regional Road

ii. Form, Size and Location of Signs

Business Identification signs in industrial zones, on land having frontage to a road other than a State/Regional Road, may take the form of either:

- a. A single or double sided freestanding and framed sign panel where:
- the sign panel is located within an overall sign structure 'envelope' with dimensions not exceeding:

height: 4.5 metres
width: 2.0 metres
depth: 300mm

OR ALTERNATIVELY

- sign panels are located within an overall sign structure 'envelope' with dimensions not exceeding:
height: 1.0 metres
width: 4.5 metres
depth: 300mm
- no part of the sign structure overhangs Council's footpath nor the public road reserve.
- the sign panel is supported by 'simply designed' pole supports, avoiding large exposed supporting frameworks, unless in the opinion of the Council such framework is intentionally designed as an architectural feature.

NOTE:

A maximum of 1 X freestanding/framed sign shall be located within 10 metres of the road alignment.

b. as per State/Regional Road signs.

c. as per State/Regional Road signs.

NOTE:

Proposals for flags associated with approved development on properties having frontage to a road other than a State/Regional Road, shall be treated on their individual merits and must satisfy the objectives for signs in industrial zones and not be a risk to neighbourhood amenity.

- Requirements for Multiple Occupancy Premises Located In Industrial Zones
- Multiple Occupancy situations can arise in industrial zones usually as either:

- ❖ self contained industrial estates or business parks that are serviced by internal private or 'commercial roads'; or
 - ❖ Factory unit type complexes.
- In either instance, Council will consider applications for one (1) Business Directory Board located at the entry to a Business Park or Industrial Unit Complex. Directory Boards must be free standing structures.
 - For sites with a frontage to a State/Regional Road, the Directory Board shall be located within the primary 20 metre building setback area and be contained within an overall sign structure envelope with dimensions not exceeding;

height:	4.5 metres
width:	2.5 metres
depth	300mm

NOTE:

For premises including more than 5 separate businesses Council will consider a variation to sign width.

- For sites with a frontage to a road other than a State/Regional Road, the Directory Board shall be located within the primary 10 metre building setback area and be contained within an overall sign structure envelope with dimensions not exceeding:

height:	4.5 metres
width:	2.5 metres
depth:	300 metres

NOTE:

For premises including more than 5 separate businesses Council will consider a variation to sign width.

- Sign blades or insert panels must be of a uniform shape and size, and there shall be a maximum of one sign blade/insert for each occupancy.
- Individual occupancies are permitted to display one flush wall mounted and framed sign panel with an area not exceeding 1.0 square metre, on a wall fronting driveway access to the individual industrial premises, without planning approval, on the condition that such a sign does not project above any building parapet or fascia nor beyond any wall.

NOTE:

An additional Directory Board may be considered where, in the opinion of the Council, developments are of such a scale to warrant a second Directory Board at a second point of primary access, where such access exists.

5. Illumination Of Signs Located In Industrial Zones

Generally, neon signs are not considered appropriate in areas other than in commercial zones of the Shire's Town Centres.

Signs in industrial areas shall be lit by means of floodlighting, fluorescent or incandescent forms of backlighting and the like. No illumination proposal will be permitted to create light 'spillage' into existing adjoining or nearby residences, nor be of such intensity, positioning and/or scale so as to create a driver or pedestrian distraction or hazard.

Part 4 Appendix Three

FLOOD-PRONE LAND AND STORMWATER MANAGEMENT

4.3.1 INTRODUCTION

This Section applies to any development for which consent is required that is located on land affected by flooding (flood liable or flood prone land).

In 1984, the State Government introduced its Flood Prone Land Policy, applicable to all land in New South Wales. The first Floodplain Development Manual (FDM) was published in 1986, providing guidelines for the implementation of the government's Flood Prone Land Policy and the 'merit approach' that underpins its application.

In 2005, the State Government released revised guidelines under the Floodplain Development Manual (FDM April 2005) to support the Flood Prone Land Policy, the primary objective of which is:

"to reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property, and to reduce private and public losses resulting from floods, utilising ecologically positive methods wherever possible."

Local Government is the primary authority responsible for both flood risk management and land use planning in New South Wales. The State Government's flood policy provides for a flexible merit based approach to be followed by local government when preparing controls for planning, development and building matters on flood liable land.

The purpose of this section of the DCP is to guide development to ensure risk to life and property associated with flooding is minimised in a manner consistent with the Policies of Council formulated under the NSW Flood Policy and Floodplain Development Manual.

Prior to determining appropriate development controls and understanding potential flood impacts and risks, it is essential that a flood study be prepared for potential flood liable land, if required, where Council does not have such information.

4.3.2 The objectives of this Section are to:

- (a) Increase public awareness of the hazard and extent of land affected by all potential floods, including floods greater than the 100 year average recurrence interval (ARI) flood and to ensure essential services and land uses are planned in recognition of all potential floods.
- (b) Inform the community of Council's policy for the use and development of flood prone land.
- (c) Manage the risk to human life and damage to property caused by flooding through controlling development on land affected by potential floods.
- (d) Provide detailed controls for the assessment of applications lodged in accordance with the Environmental Planning and Assessment Act 1979 on land affected by potential floods.

4.3.3 Requirements and Controls

4.3.3.1 How to Determine Compliance

Different controls apply to different land uses, depending on the flood hazard applying to the land. The controls in this part of the DCP comprise:

- (a) **The objectives** - a statement of the purpose intended to be achieved by each control, to assist in understanding the control.
- (b) The performance criteria - state a desired outcome and a means of assessing whether the desired outcome will be achieved.

- (c) The prescriptive controls - preferred ways of achieving the desired outcome. While adherence to the prescriptive controls may be important, it is paramount that the objectives and the performance criteria are clearly satisfied.

4.3.4 Flood Risk Precincts

The relevant FRP's for the Northern Villages includes that portion of flood prone land potentially affected by the probable maximum flood and described as:

- High Flood Risk Precinct
- Medium Flood Risk Precinct
- Fringe-Low Flood Risk Precinct
- Low Flood Risk Precinct

Where the following meanings apply:

The **High Flood Risk Precinct** contains that land below the 100 year flood that is either subject to a high hydraulic hazard or where there are significant evacuation difficulties. The high flood risk precinct is where high flood damages, potential risk to life, and evacuation problems would be anticipated or development would significantly and adversely effect flood behaviour. Most development should be restricted in this precinct. In this precinct, there would be a significant risk of flood damages without compliance with flood related building and planning controls.

The **Medium Flood Risk Precinct** contains that land below the 100 year flood that is not subject to a high hydraulic hazard and where there are no significant evacuation difficulties. In this precinct there would still be a significant risk of flood damage, but these damages can be minimised by the application of appropriate development controls.

The **Fringe-Low Flood Risk Precinct** contains that land between the extents of the 100 year flood and the 100 year flood plus 0.5m in elevation (being a freeboard). In this precinct there would still be a significant risk of flood damage, but these damages can be minimised by the application of appropriate development controls.

The **Low Flood Risk Precinct** contains that land within the floodplain (i.e. within the extent of the probable maximum flood) but not identified within any of the above Flood Risk Precincts.

Hydraulic Hazard is determined as per the definitions contained in the NSW Government "Floodplain Development Manual". Refer to [Figure A9.1](#).

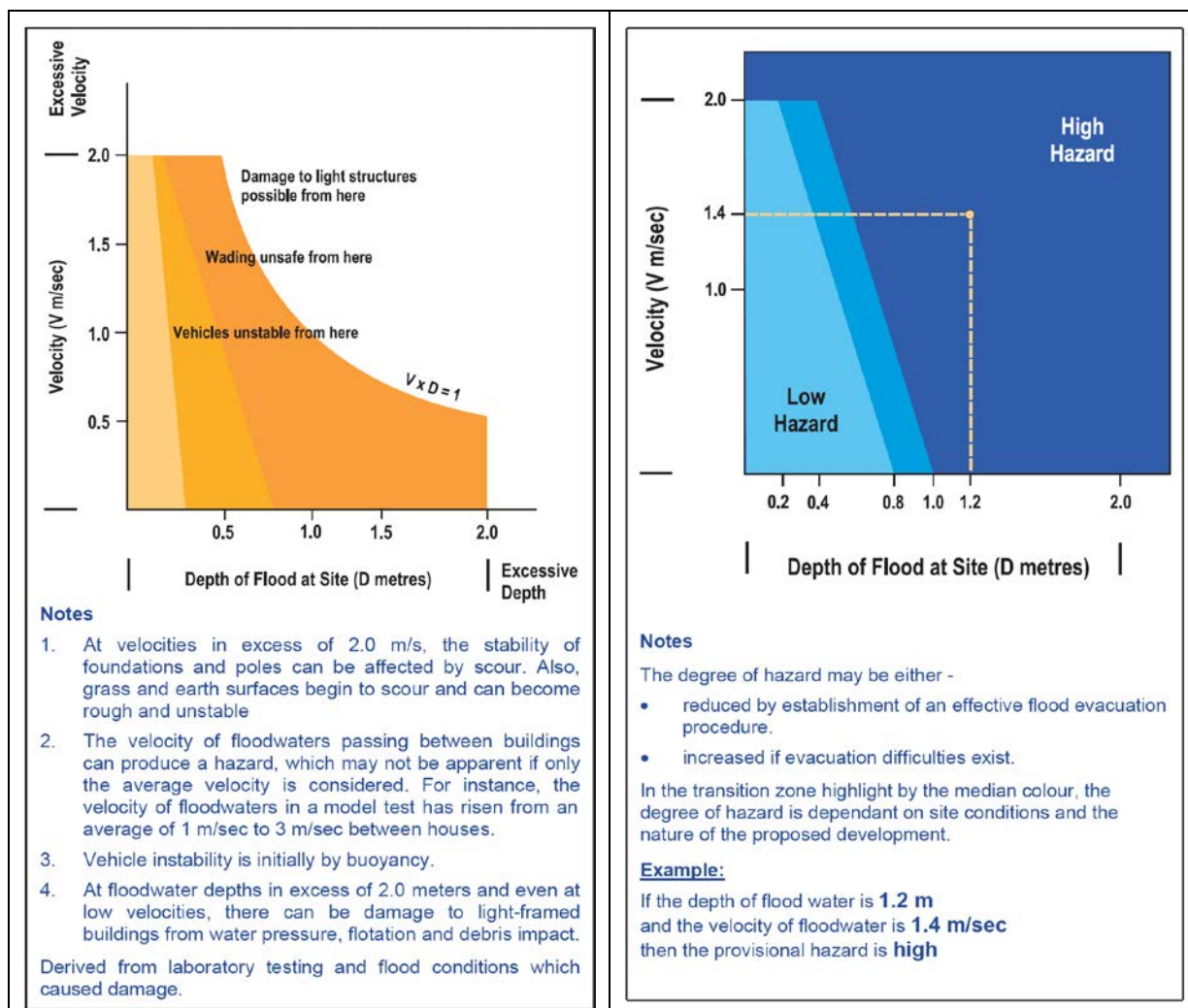


Figure A43..4.1 - Velocity & Depth Relationships (at left) and Provisional Hydraulic Hazard Categories (at right)

4.3.5 Land Use Categories

The list of land use definitions contained within WLEP 2009 has been grouped into major land use categories based on their sensitivity to flood risks. The eight land use categories and the identified land uses they contain are:

Category	Included Land Uses
Critical uses and facilities	Emergency services facility; administration building or public administration building that may provide an important contribution to the notification or evacuation of the community during flood events (e.g. SES Headquarters, Hospitals and Police Stations).
Sensitive uses and facilities	Community facility; Telecommunications facility; Institution; Educational establishment; Liquid fuel depot; Public utility undertaking (including electricity generating works and utility installations) which is essential to evacuation during periods of flood or if affected would unreasonably affect the ability of the community to return to normal activities after flood events; Seniors housing.
Residential	caravan park (approved long-term sites and/or "annuals"); child care centre; exhibition home; home-based child care centre; home business; home industry; home occupancy; moveable dwelling; neighbourhood shop; residential accommodation; tourist and visitor accommodation.
Commercial or industrial	Air transport facility; airport; amusement centre; bulky goods premises; business premises; community facility (other than critical and sensitive uses and facilities); correctional centre; crematorium; depot; entertainment

	facility; exhibition village; freight transport facility; function centre; funeral chapel; funeral home; hazardous industry; hazardous storage establishment; health services facility; heavy industry; heliport; highway service centre; industrial retail outlet; industry; liquid fuel depot; light industry; market; mixed use development; mortuary; night club; offensive industry; offensive storage establishment; office premises; passenger transport facility; place of public entertainment; place of public worship; pub; public administration building (other than critical uses and facilities); recreation facility (major); registered club; restricted premises; retail premises; self-storage units; service station; sex services premises; shop top housing; storage premises; timber and building supplies; transport depot; truck depot; vehicle body repair workshop; vehicle repair station; vehicle sales or hire premises; veterinary hospital; warehouse or distribution centre; waste disposal facility; waste management facility; waste or resource management facility; waste or resource transfer station; and wholesale supplies.
Recreation and non urban	Animal boarding or training establishment; biosolid waste application; biosolids treatment facility; boat launching ramp; boat repair facility; boat shed; caravan park (with no approved long term sites and no “annuals”); charter and tourism boating facility; environmental facility; environmental protection works; extensive agriculture; extractive industry; information and education facility; horticulture; kiosk; landscape and garden supplies; marina; mine; mining; moveable dwelling; port facilities; public utility undertaking (other than critical uses or facilities); recreation area; recreation facility (indoor); recreational facility (outdoor); research station; resource recovery facility; utility installations (other than critical uses and facilities); water recreation structure; water recycling facility; and water storage facility.
Concessional development	(a) In the case of residential development: (i) an addition or alteration to an existing dwelling of not more than 10% or 30m² (whichever is the lesser) of the habitable floor area which existed at the date of commencement of this Plan; (ii) the construction of an outbuilding with a maximum floor area of 20m²; or (iii) rebuilt dwellings which substantially reduce the extent of flood affectation to the existing building. (b) In the case of other development: (i) an addition to existing buildings of not more than additional 100m² or 10% of the floor area which existed at the date of commencement of this DCP (whichever is the lesser); (ii) rebuilding of a development which substantially reduces the extent of flood risks to the existing development; (iii) a change of use which does not increase flood risk having regard to property damage and personal safety; or (iv) subdivision that does not involve the creation of new allotments with potential for further development.

The allocation of land use categories among the flood risk precincts is summarised in the following matrix ([Figure A4.3.5.1](#))

Planning Consideration	Flood Risk Precincts (FRP's)																								
	Low Flood Risk					Fringe-Low Flood Risk					Medium Flood Risk					High Flood Risk									
	Critical Uses & Facilities	Sensitive Uses & Facilities	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Critical Uses & Facilities	Sensitive Uses & Facilities	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Critical Uses & Facilities	Sensitive Uses & Facilities	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	Critical Uses & Facilities	Sensitive Uses & Facilities	Residential	Commercial & Industrial	Recreation & Non-Urban	Concessional Development	
Floor Level		3					3	2,6,7	5,6,7	1,6	4,7				2,6,7	5,6,7	1	4,7						1	4,7
Building Components		2					2	1	1	1	1				1	1	1	1						1	1
Structural Soundness		3					3	2	2	2	2				2	2	2	2						1	1
Flood Effects		2					2	2	2	2	2				2	2	2	2						1	1
Car Parking & Driveway Access		1,3,5,6,7					1,3,5,6,7	1,3,5,6,7	1,3,5,6,7	2,3,4,6,7	6,7,8				1,3,5,6,7	1,3,5,6,7	2,3,4,6,7	6,7,8						2,3,4,6,7	6,7,8
Evacuation		2					2	2	1 or 2	3	2				2	1 or 2	3	2						3	2
Management & Design		1,4,5					1,4,5	1	1,2,3,5	1,2,3,5	1,2,3,5				1	1,2,3,5	1,2,3,5	1,2,3,5						1,2,3,5	1,2,3,5

General Notes:

No Controls

Unsuitable Development Type (refer to General Note b)

- Freeboard equals an additional height of 500mm.
- The relevant environmental planning instruments (generally the Local Environmental Plan) identify development permissible with consent in various zones in the LGA. Notwithstanding, constraints specific to individual sites may preclude Council granting consent for certain forms of development on all or part of a site.
- Filling of the site, where acceptable to Council, may change the FRP considered to determine the controls applied in the circumstances of individual applications.
- Refer to Section 4.3.6 of the DCP for planning considerations for proposals involving only the erection of a fence. Any fencing that forms part of a proposed development is subject to the relevant flood effects and Structural Soundness planning considerations of the applicable development category.
- Refer to Sections 4.3.5.2 and 4.3.5.3 of the DCP for special considerations such as for house raising proposals and development of properties identified for voluntary acquisition.
- Terms in *italics* are defined in the glossary of this plan and Schedule 2 specifies development categories. These development types are generally as defined within Environmental Planning Instruments applying to the LGA.

Floor Level

- All floor levels to be no lower than the 5 year flood level plus freeboard unless justified by site specific assessment.
- Habitable floor levels to be no lower than the 100 year flood level plus freeboard.
- Habitable floor levels to be no lower than the PMF level. Non-habitable floor levels to be no lower than the PMF level unless justified by a site specific assessment.
- Floor levels to be no lower than the design floor level. Where this is not practical due to compatibility with the height of adjacent buildings, or compatibility with the floor level of existing buildings, or the need for access for persons with disabilities, a lower floor level may be considered. In these circumstances, the floor level is to be as high as practical, and, when undertaking alterations or additions, no lower than the existing floor level.
- The level of *habitable floor areas* to be equal to or greater than the 100 year flood level plus freeboard. If this level is not practical for a development in a Business zone, the floor level should be as high as possible.
- Non-habitable floor levels to be equal to or greater than the 100 year flood level plus freeboard where possible, or otherwise no lower than the 5 year flood level plus freeboard unless justified by site specific assessment.
- A restriction is to be placed on the title of the land, pursuant to S 88B of the Conveyancing Act, where the lowest *habitable floor area* is elevated above finished ground level, confirming that the undercroft area is not to be enclosed, where Council considers this may potentially occur.

Building Components & Method

- All structures to have *flood compatible building components* below the 100 year flood level plus freeboard.
- All structures to have *flood compatible building components* below the PMF level.

Structural Soundness

- Engineer's report to certify that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 100 year flood plus freeboard, or a PMF if required to satisfy evacuation criteria (see below). In the case of alterations or additions to an existing development, the structure to be certified is that which is proposed to be newly constructed or otherwise required to be of a specified standard to satisfy other controls.
- Applicant to demonstrate that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 100 year flood plus freeboard, or a PMF if required to satisfy evacuation criteria (see below). An engineer's report may be required.
- Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a PMF. An engineer's report may be required.

Flood Effects

- Engineer's report required to certify that the development will not increase flood effects elsewhere, having regard to: (i) loss of flood storage; (ii) changes in flood levels and velocities caused by alterations to the flood conveyance; and (iii) the cumulative impact of multiple potential developments in the floodplain.
- The flood impact of the development to be considered to ensure that the development will not increase flood effects elsewhere, having regard to: (i) loss of flood storage; (ii) changes in flood levels and velocities caused by alterations to the flood conveyance; and (iii) the cumulative impact of multiple potential developments in the floodplain. An engineer's report may be required.

Car Parking and Driveway Access

- The minimum surface level of open car parking spaces or carports shall be as high as practical, and not below: (i) the 5 year flood level plus freeboard; or (ii) the level of the crest of the road at the location where the site has access, (whichever is the lower). In the case of garages, the minimum surface level shall be as high as practical, but no lower than the 5 year flood level plus freeboard.
- The minimum surface level of open car parking spaces, carports or garages, shall be as high as practical.
- Garages capable of accommodating more than 3 motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods equal to or greater than the 100 year flood.
- The driveway providing access between the road and parking space shall be as high as practical and generally rising in the egress direction.
- Where the level of the driveway providing access between the road and parking space is lower than 0.3m below the 100 year flood, the following condition must be satisfied - the depth of inundation on the driveway during a 100 year flood shall not exceed: (i) the depth at the road, or (ii) the depth at the car parking space. (Refer to Schedule 3). A lesser standard may be accepted for single detached dwelling houses where it can be demonstrated that risk to human life would not be compromised.
- Enclosed car parking and car parking areas accommodating more than 3 vehicles (other than on Rural zoned land) with a floor level below the 5 year flood level plus freeboard or more than 0.8m below the 100 year flood level, shall have adequate warning systems, signage and exits.
- Restraints or vehicle barriers to be provided to prevent floating vehicles leaving a site during a 100 year flood.
- Driveway and parking space levels to be no lower than the design ground/floor levels. Where this is not practical, a lower level may be considered. In these circumstances, the level is to be as high as practical, and, when undertaking alterations or additions, no lower than the existing level.

- Note:** a. A flood depth of 0.3m is sufficient to cause a small vehicle to float.
b. Enclosed car parking is defined in the glossary and typically refers to carports in basements.

Evacuation

- Reliable access for pedestrians or vehicles required during a 100 year flood.
- Reliable access for pedestrians or vehicles is required from the building, commencing at a minimum level equal to the lowest *habitable floor level* to an area of refuge above the PMF level, or a minimum of 20% of the gross floor area of the dwelling to be above the PMF level. In the case of alterations or additions to an existing development, this may require retro-fitting the existing structure if required to support a refuge above the PMF.
- The evacuation requirements of the development are to be considered. An engineer's report will be required if circumstances are possible where the evacuation of persons might not be achieved within the effective warning time.

Management and Design

- If this application involves subdivision, Applicant to demonstrate that potential development as a consequence of the subdivision, can be undertaken in accordance with this DCP.
- Site Emergency Response Flood Plan required where floor levels are below the design floor level, (except for single dwelling-houses).
- Applicant to demonstrate that area is available to store goods above the 100 year flood level plus freeboard.
- Applicant to demonstrate that area is available to store goods above the PMF level.
- No storage of materials below the design floor level which may cause pollution or be potentially hazardous during any flood.

Figure A4.3.5.2 - Flood Plain Matrix: Floodplains in Wingecarribee Shire

4.3.6 Controls for General Development

This sub-section details the controls that apply to general development (excluding fencing) on flood liable land other than land affected only by local overland flooding. The development controls are graded relative to the severity and frequency of the potential floods.

4.3.6.1 Objectives

The objectives of the controls for general development are:

- (a) To ensure the proponents of the development and the community in general are fully aware of the potential flood hazard and consequent risk associated with the use and development of land within the floodplain.
- (b) To require development with high sensitivity to flood damages or danger to life to be sited and designed so that it is subject to minimal flood hazard.
- (c) To allow development with low sensitivity to flood damages or danger to life to be located within a floodplain subject to design and siting controls and provided the chance of personal harm and damage to property is minimised.
- (d) To ensure that the design and siting controls and built form outcomes required to address the flood hazard do not result in unreasonable impacts on the:
 - (i) amenity and character of an area;
 - (ii) streetscape and the relationship of the building to the street;
 - (iii) social and economic outcomes; and the
 - (iv) environment and ecology.
- (e) To ensure the flood risk within the development, comprising danger to life and damage to property, is minimised and not increased beyond the level acceptable to the community.
- (f) To ensure that the proposed development does not exacerbate flooding on other properties.

4.3.6.2 Performance Criteria

The performance criteria for general development are:

- (a) The flood risk associated with the development comprising danger to life and damage to property is minimised and not increased beyond the level acceptable to the community.
- (b) The additional economic and social cost which may arise from damage to property from flooding is not greater than that which can reasonably be managed by the property owner and general community. The cost of damages that may be incurred over the expected life of a development should be no greater than that which could be reasonably expected to be met by the occupants and/or the developer without Government assistance.
- (c) Effective warning time and reliable access is available for evacuation from an area potentially affected by all floods to an area free of risk from flooding.
- (d) Motor vehicles associated with the development are able to be relocated, undamaged, to an area with substantially less likelihood from flooding, within the effective warning time.
- (e) Appropriate procedures (such as warning systems, signage or evacuation drills) for land use categories of “critical uses and facilities” and “sensitive uses and facilities” be in place, if necessary, so that people are aware of the need

to evacuate personnel and relocate goods and motor vehicles during a flood, and are capable of identifying an appropriate evacuation route.

- (f) Development does not detrimentally increase the potential flood effects on other development or properties either individually or in combination with the cumulative impact of development that is likely to occur in the same floodplain. Development should not change the height or behaviour of floodwaters elsewhere in the floodplain in a manner which is likely to affect other property. The assessment of these effects must include the potential for similar impacts that would arise as a consequence of other development in the floodplain that has the potential to occur in the future under current zoning and planning controls.
- (g) Development does not result in significant impacts upon the amenity of an area (e.g. by way of unacceptable overshadowing of adjoining properties) or privacy impacts (e.g. by unsympathetic house-raising).
- (h) Development must be compatible with the existing and planned streetscape and character of the locality.
- (i) The design of car parking (enclosed or uncovered) and associated driveways should not result in unacceptable environmental or amenity impacts such as visual intrusion from elevated driveways and parking structures and overshadowing of adjoining residential properties.
- (j) The proposal must not have an unacceptable adverse impact upon the ecological value of the waterway corridors, and where possible, should provide for their enhancement.

4.3.6.3 Prescriptive Controls

The prescriptive controls for general development are:

- (a) Compliance with the requirements of the floodplain matrix as contained in Figure A9.2 above.
- (b) Development within the commercial centres must ensure that design solutions address flood risk management objectives as well as providing appropriate urban design outcomes, particularly in regard to:

Ground floor levels that are consistent with existing adjoining commercial development or form part of an integrated design which incorporate the frontage of a whole street block. Note: design solutions could include, flood proofed shop front windows at street level and confined active spaces (such as eating areas) at the street level which are substantially constructed of flood compatible materials and building components or able to be closed off with flood proof doors. Ground floor areas away from the street interface may vary subject to being adequately integrated.

Acceptable access for persons with disabilities; and

An overall building height that is compatible with the existing and planned streetscape.

- (c) Proposals for house raising must provide appropriate documentation including:

a report from a suitably qualified engineer to demonstrate that the raised structure will not fail from the forces of floodwaters in a 100 year ARI flood; and

the provision of details such as landscaping and architectural enhancements which ensure that the resultant structure will not result in significant adverse impacts upon the amenity and character of an area.

4.3.7 Controls for Fencing

Fencing can have a significant influence on the distribution of flood waters. The implications of fencing are greater where flood waters are deeper and faster moving such as is expected in a high flood risk precinct.

4.3.7.1 Objectives

The objectives of the controls for fencing are to ensure that development involving fencing has fencing constructed:

- (a) in a manner that does not affect the flow of flood waters so as to result in additional flood impacts on surrounding land; and
- (b) so as to withstand the forces of floodwaters, or collapse in a controlled manner to prevent the undesirable impediment of flood waters.

4.3.7.2 Performance Criteria

The performance criteria for fencing are:

- (a) Fencing is to be constructed in a manner that does not affect the flow of flood waters so as to detrimentally change flood behaviour or increase flood levels on surrounding land.
- (b) Ability to be certified by a suitably qualified engineer, that the proposed fencing is adequately constructed so as to withstand the forces of floodwaters, or collapse in a controlled manner to prevent the undesirable impediment of flood waters.

4.3.7.3 Prescriptive Controls

The prescriptive controls for fencing are:

- (a) Fencing within a High Flood Risk Precinct must be security/ permeable/ open type/safety fences. Council may require such fencing to be able to be opened at the bottom with the force of floodwaters. (This requirement may be secured by a Section 88B instrument burdening the title of the land).
- (b) An applicant will need to demonstrate that any fence would create no impediment to the flow of floodwaters. Appropriate fences must satisfy the following:-

An open collapsible hinged fence structure or pool type fence;

Other than a brick or other masonry type fence (which will generally not be permitted); or

A fence type and siting criteria as prescribed by Council.

4.3.8 Controls for Overland Flow

The effects of overland flow, also defined as local overland flooding, are to be assessed in the same manner as mainstream flooding. In addition there are other specific considerations as outlined below.

4.3.8.1 Objectives

The objective of the control for overland flow is to ensure that the impacts and flood risks associated with overland flow are addressed when assessing a development proposal.

4.3.8.2 Performance Criteria

The performance criteria for general flood prone land apply.

4.3.8.3 Prescriptive Controls

The prescriptive controls for overland flow are:

- (a) Proposals involving collecting and piping overland flow through the subject property or upgrading a section of Council's existing pipe infrastructure, will generally not be acceptable for the following reasons:
 - there is a substantial potential for system blockage due to the limited number of inlets available;
 - the natural detention storage available within the catchment is reduced and flow velocities are increased; and
 - due to greater rates of flow, it may cause localised increases in hazard at the system outlet and greater scour of natural creeks and/or disturbance of the downstream river bed.
- (b) Proposed land subdivisions of lots affected by overland flow will not be approved unless the applicant can demonstrate to Council that it is possible to provide a development on the newly created lot that realises the full floor space ratio (FSR) potential of the lot and provides suitable private open space while meeting the overland flow management criteria outlined in this document.

4.3.9 Information Requirements

4.3.9.1 Introduction

This section outlines the information that is likely to be required in the formulation of a competent development proposal on flood liable land and to assess the acceptability of the proposal.

4.3.9.2 Objective

To ensure that adequate information is available in the formulation and assessment of a development proposal on flood liable land.

4.3.9.3 Information Requirements

- (a) Applications must include information that addresses all relevant controls listed above, and the following matters as applicable.
- (b) Applications for Concessional Development to an existing dwelling on flood liable land shall be accompanied by documentation from a registered surveyor confirming existing floor levels.
- (c) A survey plan showing: -
 - The position of the existing building/s or proposed building/s;
 - The existing ground levels to Australian Height Datum (AHD) around the perimeter of the building and contours of the site; and
 - The existing or proposed floor levels to AHD.
- (d) Applications for earthworks, filling of land and subdivision shall be accompanied by a survey plan (with a contour interval of 0.25m) showing relative levels to AHD.
- (e) For large scale developments, or developments in critical situations a flood study using a fully dynamic one or two dimensional computer model may be required. For smaller developments a suitable flood study may be required

together with any relevant Council Drainage Design Code and the Floodplain Development Manual. From a flood study, the following information shall be submitted in plan form:

- water surface contours (including the 100 year flood and PMF extents);
- velocity vectors;
- velocity and depth product contours;
- delineation of Flood Risk Precincts relevant to individual floodplains; and
- both existing and proposed flood profiles for the full range of events for total development including all structures and works (such as revegetation/ enhancements).

This information is required for the pre-developed and post-developed scenarios.

(f) Where the controls for a particular development proposal require an assessment of structural soundness during potential floods, the following impacts must be addressed:

- hydrostatic pressure;
 - hydrodynamic pressure;
 - impact of debris; and
 - buoyancy forces.
-
- Foundations need to be included in the structural analysis.

4.3.10 Terms Used in this Section of the Plan

Adequate Warning Systems, Signage and Exits is where the following is provided:

- (a) an audible and visual alarm system which alerts occupants to the need to evacuate, sufficiently prior to likely inundation to allow for the safe evacuation of pedestrians and vehicles;
- (b) signage to identify the appropriate procedure and route to evacuate; and
- (c) exits which are located such that pedestrians evacuating any location during any flood do not have to travel through deeper water to reach a place of refuge above the 100 year flood, away from the enclosed car parking.

Annual is a dwelling site in a caravan park used as a “holiday van” site. “Holiday van” is defined in the Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005 as “a moveable dwelling (other than a tent) that is or usually is continuously located on a short-term site and used primarily by its owner for occasional occupancy for holiday purposes”.

Australian Height Datum (AHD) is a common national plane of level corresponding approximately to mean sea level.

Average Recurrence Interval (ARI) means the long-term average number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 20 year ARI flood event will occur on average once every 20 years. ARI is another way of expressing the likelihood of occurrence of a flood event.

Compensatory Works refers to earthworks where material is excavated (or “cut”) from one location in the floodplain and placed (or “filled”) at another location in the floodplain, with no net importation of fill material, such that the volume available for storage of flood waters is not altered for all floods.

Conveyance is a direct measure of the flow carrying capacity of a particular cross-section of a stream or stormwater channel. (For example, if the conveyance of a channel cross-section is reduced by half, then the flow carrying capacity of that channel cross-section will also be halved).

Design floor level or ground level means the minimum floor level that applies to the development. If the development is concessional development, this level is determined based on what land use category would apply if it was not categorised as Concessional Development.

DISPLAN means a step by step sequence of previously agreed roles, responsibilities, functions, actions and management arrangements for the conduct of a single or series of connected emergency operations, with the object of ensuring the coordinated response by all agencies having responsibilities and functions in emergencies.

Ecologically Sustainable Development (ESD) is using, conserving and enhancing natural resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be maintained or increased.

Effective warning time is the time available after receiving advice of an impending flood and before the floodwaters prevents appropriate flood response actions being undertaken. The effective warning time is typically used to move farm equipment, move stock, raise furniture, evacuate people and transport their possessions.

Enclosed car parking means car parking which is potentially subject to rapid inundation, which consequently increases danger to human life and property damage (such as basement or bunded car parking areas). The following criteria apply for the purposes of determining what is enclosed car parking:

- (a) Flooding of surrounding areas may raise water levels above the perimeter which encloses the car park (normally the entrance), resulting in rapid inundation of the car park to depths greater than 0.8m, and
- (b) Drainage of accumulated water in the car park has an outflow discharge capacity significantly less than the potential inflow capacity.

Flood is a relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river, estuary, lake or dam, and/or local overland flooding associated with major drainage as defined by the FDM before entering a watercourse.

Note: Consistent with the Floodplain Development Manual, this section of the DCP does not apply in the circumstances of local drainage inundation as defined in the Floodplain Development Manual and determined by Council. Local drainage problems can generally be minimised by the adoption of urban building controls requiring a minimum difference between finished floor and ground levels.

Flood awareness is an appreciation of the likely effects of flooding and knowledge of the relevant flood warning and evacuation procedures.

Flood compatible building components means a combination of measures incorporated in the design and/or construction and alteration of individual buildings or structures subject to flooding, and the use of flood compatible materials for the reduction or elimination of flood damage.

Note: A list of typical flood compatible building components is provided in [Figure A9.3](#).

Flood compatible materials include those materials used in building which are resistant to damage when inundated.

Note: A list of typical flood compatible building components is provided in [Figure A9.3](#).

Flood evacuation strategy means the proposed strategy for the evacuation of areas within effective warning time during periods of flood as specified within any policy of Council, the FRMP, the relevant SES Flood Plan, by advices received from the State Emergency Services (SES) or as determined in the assessment of individual proposals.

Flood prone land (being synonymous with flood liable and floodplain) is the area of land which is subject to inundation by the probable maximum flood (PMF).

Floodplain Development Manual (FDM) refers to the document dated April 2005, published by the New South Wales Government and entitled "Floodplain Development Manual: the management of flood liable land".

Floodplain Risk Management Plan (FRMP) means a plan prepared for one or more floodplains in accordance with the requirements of the Floodplain Development Manual or its predecessors.

Floodplain Risk Management Study (FRMS) means a study prepared for one or more floodplains in accordance with the requirements of the Floodplain Development Manual or its predecessors.

Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for a FPL is actually provided. It is a factor of safety typically used in relation to the setting of flood levels, levee crest levels, etc. (as specified at Section K5 of the FDM). Freeboard is included in the flood planning level.

Habitable floor area means:

- (a) in a residential situation: a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom;
- (b) in an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.

Note: Separate considerations are specified for the car parking area of a development irrespective of the land use with which it is associated.

Hazard is a source of potential harm or a situation with a potential to cause loss. In relation to this plan, the hazard is flooding which has the potential to cause harm or loss to the community.

Infill development is development which is proposed within established existing urban area and usually involves the development of a vacant residential site, or the removal of an existing residential or retail/commercial building to provide a replacement building for a similar use.

Local drainage means small scale inundation in urban areas outside the definition of major drainage as defined in the Floodplain Development Manual. Local drainage problems invariably involve shallow depths (less than 0.3m) with generally little danger to personal safety.

Local overland flooding (being synonymous with overland flow) means inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.

Outbuilding means a building that is ancillary to a principal residential building and includes sheds, garages, carports and similar buildings but does not include granny flats.

Practical means that which in the opinion of Council can be achieved within the design of the development, while not necessitating:

- (a) floor levels to be raised in a way that would unreasonably hinder access to and from existing floor levels or ground levels on the same site or adjacent public areas; and
- (b) the raising of a structure to a height that would result in unacceptable impacts on the amenity of adjacent residential properties; and
- (c) the height or presentation of a building that would be inconsistent with the existing or planned streetscape.

Note: Examples of where the preferred design may not be practical include:

Example 1: A minor extension to an existing dwelling (falling within the “Concessional Development” land use category) where an additional room would require a floor level higher than what otherwise exists within the dwelling constraining internal movements or resulting in an unusual external appearance to the building.

Example 2: The rebuilding or refitting of a singular shop in a traditional street shopping centre where existing ground floor levels of the site and adjoining sites relate closely to the footpath level. In this case the width of the site would not be sufficient to allow for a redevelopment that could incorporate a podium level or colonnade along the street frontage at the preferred design floor level while remaining compatible with the existing or planned streetscape. The site would have insufficient frontage to the road to enable the creation of a site specific streetscape presentation that was compatible with, but not consistent with that otherwise prevailing in the shopping centre (eg. the site does not occupy a whole street block).

Example 3: The topographical site constraints of a site would require a driveway to be elevated more than 1 metre above natural ground in a location that would not allow the driveway to be incorporated in the final landscape or visually and acoustically screened from habitable rooms associated with dwellings on the site or adjacent properties. The resultant garage design and driveway levels may also be unable to meet Australian Standards. In this case the development of the site for the proposed residential purposes would otherwise be a reasonable expectation having regard to the planning controls and existing development in the locality.

Primary habitable floor area means the majority of habitable floor area and in a residential situation includes the majority of bedrooms, main living area, kitchen and first bathroom.

Probability is a statistical measure of the expected chance of flooding (see ARI).

Probable maximum flood (PMF) is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation. In the case of the Berrima Floodplain, the PMF is identical to the “extreme flood” referred to in the Berrima Flood Study (Revised) (2000) and the Berrima Floodplain Risk Management Study (2002), or later updates to these studies.

Probable maximum precipitation (PMP) is the greatest depth of precipitation for a given duration meteorologically possible over a given size storm area at a particular location at a particular time of the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is often the primary input to the estimation of the probable maximum flood.

Raised fill pad level is a raised area of ground upon which a dwelling or ancillary buildings must be constructed on rural or other non-urban zoned lands.

Rebuilt dwelling refers to the construction of a new dwelling on an allotment where an existing dwelling is demolished.

Reliable access during a flood means the ability for people to safely evacuate an area subject to flooding, having regard to the depth and velocity of flood waters and the suitability of the evacuation route, without a need to travel through areas where water depths increase.

Risk means the chance of something happening that will have an impact. It is measured in terms of consequences and probability (likelihood). In the context of this plan, it is the likelihood of consequences arising from the interaction of floods, communities and the environment.

Site Emergency Response Flood Plan (not being an SES Flood Plan) is a management plan that demonstrates the ability to safely evacuate persons and include a strategy to move goods above the flood level within the available warning time. This Plan must be consistent with any relevant flood evacuation strategy, flood plan or similar plan.

Survey plan is a plan prepared by a registered surveyor which shows the information required for the assessment of an application in accordance with the provisions of this Plan.

Subdivision where referred to in the context of flood risk management controls means any subdivision of land which involves the creation of new allotments.

Tourist related development where referred to in the context of flood risk management controls means cabins, camping or caravan sites which do not provide for long term occupation or any tourist facility which does not include accommodation.

Figure A3.10.1 - Schedule of Flood Compatible Materials & Building Components

Building Component	Flood compatible Material	Building Component	Flood Compatible Material
Flooring and Sub-floor Structure	- concrete slab-on-ground monolith construction - suspension reinforced concrete slab.	Doors	- solid panel with water proof adhesives - flush door with marine ply filled with closed cell foam - painted metal construction - aluminium or galvanised steel frame
Floor Covering	- clay tiles - concrete, precast or in situ - concrete tiles - epoxy, formed-in-place - mastic flooring, formed-in-place - rubber sheets or tiles with chemical-set adhesives - silicone floors formed-in-place - vinyl sheets or tiles with chemical-set adhesive - ceramic tiles, fixed with mortar or chemical-set adhesive - asphalt tiles, fixed with water resistant adhesive	Wall and Ceiling Linings	- fibro-cement board - brick, face or glazed - clay tile glazed in waterproof mortar - concrete - concrete block - steel with waterproof applications - stone, natural solid or veneer, waterproof grout - glass blocks - glass - plastic sheeting or wall with waterproof adhesive
Wall Structure	solid brickwork, blockwork, reinforced, concrete or mass concrete	Insulation Windows	- foam (closed cell types) - aluminium frame with stainless steel rollers or similar corrosion and water resistant material.
Roofing Structure (for Situations Where the Relevant Flood Level is Above the Ceiling)	- reinforced concrete construction - galvanised metal construction	Nails, Bolts, Hinges and Fittings	- brass, nylon or stainless steel - removable pin hinges - hot dipped galvanised steel wire, nails or similar.

Electrical and Mechanical Equipment For dwellings constructed on land to which this Plan applies, the electrical and mechanical materials, equipment and installation should conform to the following requirements.	Heating and Air Conditioning Systems Heating and air conditioning systems should, to the maximum extent possible, be installed in areas and spaces of the house above the relevant flood level. When this is not feasible every precaution should be taken to minimise the damage caused by submersion according to the following guidelines.
Main power supply Subject to the approval of the relevant authority the incoming main commercial power service equipment, including all metering equipment, shall be located above the relevant flood level. Means shall be available to easily disconnect the dwelling from the main power supply.	Fuel Heating systems using gas or oil as a fuel should have a manually operated valve located in the fuel supply line to enable fuel cut-off.
Wiring All wiring, power outlets, switches, etc., should, to the maximum extent possible, be located above the relevant flood level. All electrical wiring installed below the relevant flood level should be suitable for continuous submergence in water and should contain no fibrous components. Earth core linkage systems (or safety switches) are to be installed. Only submersible-type splices should be used below the relevant flood level. All conduits located below the relevant designated flood level should be so installed that they will be self-draining if subjected to flooding.	Installation The heating equipment and fuel storage tanks should be mounted on and securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks should be vented to an elevation of 600 millimetres above the relevant flood level.
Equipment All equipment installed below or partially below the relevant flood level should be capable of disconnection by a single plug and socket assembly.	Ducting All ductwork located below the relevant flood level should be provided with openings for drainage and cleaning. Self draining may be achieved by constructing the ductwork on a suitable grade. Where ductwork must pass through a water-tight wall or floor below the relevant flood level, the ductwork should be protected by a closure assembly operated from above relevant flood level.
Reconnection Should any electrical device and/or part of the wiring be flooded it should be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.	Ancillary Structures (steps, pergolas, etc) Suitable water tolerant materials should be used such as masonry sealed hardwood and corrosive resistant metals. Copper Chrome Arsenate (CCA) treated timber is not a suitable material.

Part 4 Appendix Four

TELECOMMUNICATIONS AND RADIOCOMMUNICATIONS INFRASTRUCTURE

4.4 INTRODUCTION

The following objectives and provisions apply to telecommunications and radiocommunications infrastructure (including broadcasting infrastructure covered under the *Telecommunications Act 1997* and the *Radiocommunications Act 1992*).

New telecommunications and radiocommunications infrastructure requires Council development consent, unless it is exempt by Commonwealth legislation such as the Telecommunications (Low Impact Facilities) Determination 1997 or is classified as exempt or complying.

As part of a carrier's consultation obligation for telecommunications and radiocommunications exempted by Commonwealth legislation, Council encourages a written submission demonstrating consistency with the objectives and provision below.

The following objectives and provisions do not apply to temporary emergency services or domestic satellite receivers.

A1.1 How do these provisions relate to Commonwealth legislation?

Telecommunications at 1997 and Radiocommunications Act 1992

These provisions clarify the expectations of Council anon carriers who operate under the *Telecommunications Act 1997* and *Radiocommunications Act 1992*.

Telecommunications Code of Practice 1997

These provisions clarify and standardise the expectations of Council in respect to land access situations.

Telecommunications (Low-Impact Facilities) Determination 1997 (LIF Determination)

While these provisions do not have the authority to override the LIF Determination, they nevertheless provide advice to carriers about the expectations of Council and require voluntary cooperation.

Code for the Deployment of Radiocommunications Infrastructure (ACIF, 2002)

These provisions broaden the scope of the ACIF Code by applying consistently to not only carriers and their agents, but also builders and operators of all RFR-Emitting infrastructure, including those operating under the *Radiocommunications Act 1992*. Consultation with Council is required under this code.

National Broadband Network (NBN Co) Rollout

The National Broadband Network is a wholly owned Government Business Enterprise (GBE) that is intended to provide a network of infrastructure to carriers at wholesale prices. This network will be constructed using a combination of fixed wireless, optical fibre and satellite communications devices to connect residences and businesses. Most of the infrastructure will be exempt under the *Telecommunications (Low Impact Facilities) Determination 1997*. As a public authority the balance will be exempt under the NSW *Infrastructure SEPP*.

4.4.1 OBJECTIVES

This Section identifies Council's social and environmental objectives with regard to the development of telecommunications and radiocommunications infrastructure within Wingecarribee Shire.

4.4.2 SOCIAL

- (a) To ensure that the general public and local communities have connection to up-to-date telecommunications technology
- (b) To apply the *precautionary principle* through prudent location of telecommunications and radiocommunications infrastructure to:
- (c) To Minimise EMR (Electro-Magnetic Radiation) exposure to the public
- (d) Avoid or minimise impacts on sensitive surrounding land uses, particularly with regard to visual impact.
- (e) To achieve equity for all stakeholders by endeavoring to balance their various needs of access, EMS Potential, visual impact and service provision.
- (f) To provide mechanisms by which information can be disseminated to ensure that community is adequately informed and empowered to participate in the planning/decision making process.

4.4.3 ENVIRONMENTAL

- (a) To help implement principles of urban design in respect to telecommunications and radiocommunications infrastructure
- (b) To promote good industrial design of infrastructure
- (c) To provide infrastructure that is visually compatible with surrounding character and locality/visual context with particular regard to heritage buildings/areas and cultural icons.
- (d) To prevent any adverse impact on the natural environment
- (e) To restore the site after discontinuation or removal of infrastructure

4.4.4 CONTROLS

4.4.5 AUSTRALIAN STANDARDS

All facilities are required to comply with relevant Australian standards, including EMR standards.

4.4.6 VISUAL AMENITY

Carriers are to design antennas and supporting infrastructure in such a way as to minimise or reduce visual and cumulative visual impact from the public domain and adjacent areas.

4.4.7 INFRASTRUCTURE MUST;

- (a) The infrastructure design will respect the amenity of the local context, particularly ensuring that such development shall:
 - I. Be appropriate in colour, texture, form, bulk and scale.
 - II. Be well designed
 - III. Be integrated with the existing building structure unless otherwise justified to Councils satisfaction.
 - IV. Have concealed cables where practicable and appropriate
 - V. Be unobtrusive where possible
 - VI. Be consistent with the character of the surrounding area.
- (b) Infrastructure must be removed when it is no longer being used for transmission.
- (c) The site must be restored and rehabilitated following construction of the infrastructure.
- (d) Demonstrate compliance with the provisions of Section A1.6 to A1.11.

Note:

Landlord requirements are not considered adequate justification for non-compliance

4.4.8 CO-LOCATION REQUIREMENTS

Co-Location is the practice of locating a number of different telecommunications facilities, often owned by different carriers, on one facility or structure.

- (a) Where co-location of telecommunications facilities are proposed the impact of the development is to be assessed against:
 - i. Cumulative emissions of all co-located telecommunications facilities;
 - ii. Visual impact of co-located telecommunications facilities
 - iii. The physical and technical limits to the amount of infrastructure that masts and towers are capable of supporting; and
 - iv. Whether the required coverage can be achieved from the location
- (b) Carriers shall demonstrate a precautionary approach and effective measures to minimise the negative impacts of co-location

4.4.9 LOCATION

- (a) The applicant must demonstrate that, in selecting a site, it has adopted a precautionary principle approach to minimising EMR exposures consistent with Section 1.5 of the ACIF Code.
- (b) The preferred location for telecommunications and radiocommunications infrastructure is industrial areas, low use open space and commercial centres, rural areas and infrastructure corridors such as railways and highways.
- (c) Radio Communications and Telecommunications facilities are to be located a minimum distance of 100 metres from residences where they are to be installed in residential areas. In setting this distance Council supports the precautionary approach to protect residential amenity.
- (d) The proposal is to avoid or minimise the physical impact of any facility on endemic flora and fauna habitats.
- (e) The proposal is to avoid or minimise the visual impact on heritage significance of adjacent, adjoining or surrounding heritage items or conservation areas listed in Wingecarribee LEP 2010
- (f) The applicant shall demonstrate particular consideration of sensitive land uses especially where a telecommunications or radiocommunications facility is proposed that is not ancillary to its primary function (see co-location above) Sensitive land uses include:
 - i. Where occupants are located for long periods of time (eg, Residents).
 - ii. That are frequented by young children (eg, schools and child care centres) and
 - iii. Where there are people with particular health problems (Hospitals and child care centres)

4.4.10 PHYSICAL DESIGN

- (a) Infrastructure must be of high quality design and construction.
- (b) Proposals should consider the range of available alternative infrastructure including new technologies to minimise unnecessary or incidental EMR emissions and exposures, as required by Section 5.2.3 of the ACIF Code
- (c) The plan for the facility must include measures to restrict public access to the antenna(s). Approaches to the antenna must contain appropriate signs warning of EMR and providing contact details for the facility's owner/manager.
- (d) **The minimum requisites that shall apply where relevant are the BCA and the relevant Australian standards. The applicant must provide Council with certification to demonstrate compliance with the BCA and other standards**

4.4.11 PUBLIC HEALTH

- (a) The applicant is to demonstrate the precautions it has taken to minimise EMR exposures to the public.
- (b) The applicant is to provide documentation to show that the proposed facility complies with the relevant Australia exposure standard.
- (c) The applicant is to provide a mapped analysis of the cumulative effect of the proposal.
- (d) A Community Consultation Plan is required for all proposals requiring Council consent detailing how the consultation is to be conducted and how the results will be forwarded to Council

4.4.12 ENVIRONMENTAL IMPACTS

This clause applies to land zoned E2 Environmental Conservation, E3 Environmental Management and E4 Environmental Living

- (a) Development to which this clause applies requires development consent.
- (b) The applicant is to avoid or minimise the physical impact of any proposed facility on the visual aspect of a location.
- (c) New installations should consider the use of renewable energy sources to minimise the need for connection to the conventional power grid (particularly in remote locations), so that such installations are self sufficient in terms of energy supply and to reduce the reliance on conventional power sources.

4.4.13 HERITAGE IMPACTS

- (a) The applicant is to provide a heritage report/impact assessment where the installation of infrastructure may impact upon a heritage item or property located in a conservation area.