# Part E General (City Wide) Controls
# Chapter E3 Car Parking, Access, Servicing / Loading Facilities and Traffic Management

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**DOCUMENT CONTROL**

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# 1. INTRODUCTION

## 1.1 This DCP Chapter

### 1.1.1 Purpose of this Chapter

The Wollongong Development Control Plan (DCP) 2009 – Chapter E3 Car Parking, Access, Servicing / Facilities and Traffic Management outlines the objectives, controls and design guidance for the management of traffic impacts associated with development in the Wollongong Local Government Area. The Chapter also outlines Council's requirements for the design, construction and provision of parking, access and loading facilities for specific developments. This Chapter supports the objectives contained in the Wollongong Local Environmental Plan (LEP) 2009.

This Chapter is informed by the following Council policies and strategies:

- The Vision for the City Centre – A City for People: Public Spaces Public Life (2016)
- Wollongong City Centre Urban Design Framework (UDF) (2020)
- Sustainable Wollongong 2030 A Climate Healthy City Strategy
- Climate Change Mitigation Plan 2023-30
- Urban Heat Strategy (2023)
- Wollongong Cycling Strategy 2030

This Chapter includes specific reference to recognised best practice design standards and guidelines, where appropriate.

### 1.1.2 Where this DCP Chapter applies

This DCP Chapter applies to any development requiring development consent under Part 4 or approval under Part 5 of the Environmental Planning and Assessment Act 1979 in the Wollongong Local Government Area (LGA). This Chapter should be read in conjunction with other parts of the DCP, especially Part B (Land Use Planning Controls), Part C (Specific Land Use Controls), Part D (Locality Based DCPs / Precinct Plans) and Part E (General City Wide Controls).

### 1.1.3 Application of this DCP Chapter

The determining authority will take the provisions of this chapter into consideration in determining all applications within the Wollongong LGA. Development applications must demonstrate conformity with the aims, objectives and controls of this and other relevant chapters of the Wollongong DCP.

The aims of this DCP Chapter are to:

a) Promote a reduction in the number of vehicles using the core of the City Centre and prioritise the City Centre for pedestrians.

b) Encourage a mode shift across the LGA to public and active transport.

c) Provide for appropriate parking and services for all development, whilst promoting more sustainable transport use.

d) Ensure the design and construction of parking, access and servicing areas is in accordance with best practice standards.

e) Ensure adequate and safe vehicle access to sites without compromising pedestrian access, safety and streetscape qualities.

f) Support the transition to low emissions vehicle transport.

## 2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

The following are relevant to this Chapter:

- Environmental Planning and Assessment Act 1979
- Roads Act 1993
- SEPP (Transport and Infrastructure) 2021
- SEPP (Housing) 2021
- Commonwealth Disability Discrimination Act 1992
- Water Management Act 2000
- NSW Aquifer Interference Policy
- Disability (Access to Premises – Buildings) Standards 2010
- Australian Standard AS 2890: Parking facilities set
- Australian Standard AS 1428: Design for access and mobility set
- Australian Standard AS 4299: Adaptable housing
- Guide to Transport Impact Assessment (TfNSW 2024)
- AUSTROADS Guide to Traffic Management
- National Construction Code (NCC 2022)
- Minimum requirements for building site groundwater investigations and reporting (DPE 2022)

**Note:** where the above-mentioned standards and guidelines are superseded by updated versions, the version current at the date of lodgement of the Development Application shall apply to the proposed development.

## 3. PARKING DEMAND AND SERVICING REQUIREMENTS

### 3.1 Parking Rates

#### 3.1.1 Objectives

a) Ensure an appropriate level and mix of parking provision, having regard to the likely demand

b) Recognise variable accessibility to public transport in parking rates for different parts of the LGA

#### 3.1.2 Development Controls

1. Parking for cars, motorcycles and bicycles is to be provided for specific land uses/ developments in accordance with the minimum rates in Schedule 1 (noting that DCP Chapter D13 contains site specific car parking requirements for the Wollongong City Centre).

2. Where development proposals contain uses that fall into a number of different land use categories the parking requirements will be calculated by adding up the quantum of car parking, motorcycle and bicycle spaces required for each land use component. Where a formula in the table results in fractions, numbers are to be rounded up to the nearest whole number. If a number of uses are present on the same development site the rounding off is to take place after the requirements for all uses have been summed together.

3. Requirements relating to employee parking refer to the maximum number of employees concurrently present on the site at any time.

4. Where car parking and / or other requirements are not defined by this DCP chapter for a particular land use or in the TfNSW Guide to Transport Impact Assessment, a detailed Car Parking and Traffic Impact Assessment Study will be required to be prepared for the proposed development (see Section 8).

5. Reduced parking rates for residential development in accordance with Wollongong DCP 2009 Chapter E3 Schedule 1 for development within 450m walking distance of a rail station may be adopted, subject to a traffic and parking assessment submitted with the development application.

6. All car parking requirements associated with industrial development shall be provided 100% on site.

## 3.2 Accessible Parking

### 3.2.1 Objectives

a) Ensure accessible parking spaces are provided and located according to best practice guidelines.

b) Provide car parking spaces that are accessible to future users.

c) Ensure a continuous accessible path of travel from accessible parking spaces and passenger drop off points to entrances of buildings and key uses at the site.

### 3.2.2 Development Controls

1. Accessible parking facilities are to be provided in accordance with Australian Standards AS2890, AS1428 and AS4299, the National Construction Code (2022), Disability (Access to Premises – Buildings) 2010 and Council's DCP Chapter E1 Access for People with a Disability.

2. The car parking rates for accessible car parking spaces are contained in Schedule 2.

3. Where adaptable car parking spaces are required as part of a residential development, any adaptable car parking spaces must be a minimum of 3.8 metres in width.

## 3.3 Bicycle and Micromobility Parking / Facilities

### 3.3.1 Objectives

a) Ensure bicycle/micromobility parking spaces and end of trip facilities are provided and located according to best practice guidelines.

b) Encourage trips by cycling and micromobility use, through the provision of conveniently located bike parking and end of trip shower and change, and storage facilities.

### 3.3.2 Development Controls

1. Parking for bicycles/micromobility modes of transport is to be provided for specific land uses/ developments in accordance with the minimum rates in Schedule 1.

2. Bicycle/micromobility parking is to be designed in accordance with AS 2890 or AUSTROADS Guide to Traffic Management.

3. Provision for access and parking of vehicles is not to compromise the equity and amenity of bicycle/micromobility access and parking.

4. Shower, change facilities and personal lockers shall be provided in accordance with Table 1 below.

5. Bicycle/micromobility parking devices should be designed to enable the wheels and frame to be locked to the device without damaging the bicycle. The parking device should be easily accessible to / from a public road. The bicycle parking device should not encroach into any pedestrian thoroughfare but should be positioned in full public view, wherever practicable.

6. The bicycle parking area should be designed to be protected from damage arising from the manoeuvring of motor vehicles and the opening of vehicle doors.

7. The bicycle parking area is to be well lit by appropriate existing or new lighting as per AS 1680.2 Table E1 or higher, if required for monitoring of the car park and access points by closed circuit television (CCTV).

8. The bicycle parking area should also be protected from the weather, as far as practicable.

9. The bicycle parking area should provide access to electrical power for the purpose of charging electric bikes and other emobility devices.

**Bicycle End-of-trip Facilities - Table 1**

| **Required Bicycle Parking Spaces** (refer to Schedule 1) | **Shower and Change Rooms** | **Personal Lockers** |
|---|---|---|
| < 5 bicycle spaces | n/a | n/a |
| 5 - 20 bicycle spaces | 1 female shower and change room; and<br>1 male shower and change room | 1 per bicycle space |
| > 20 bicycle spaces | 2 female shower and change rooms; and<br>2 male shower and change rooms; plus<br>2 additional shower and change rooms for every additional 10 bicycle spaces, or part thereof | 1 per bicycle space |
| **Note**: Shower and change facilities may be provided in the form of shower/change rooms in a unisex area or shower/ change rooms in separate female and male rooms. | | |

## 3.4 Variations to Parking Rates

### 3.4.1 Objectives

a) Allow variations to on-site provisions for parking for proposed Non-Residential uses or change of use/redevelopment proposals.

### 3.4.2 Development Controls

1. Applicants must comprehensively justify any departure from the parking rates set out in Schedule 1 in any Statement of Environmental Effects or Traffic Impact Study accompanying the development application.

2. A reduction in the number of car parking spaces required of a Non-Residential development will be assessed on the merits of an application.

3. For development applications involving a change of use or redevelopment which do not cause any net increase in the demand for car parking, Council may determine that the provision of any additional car parking is not required. In the majority of cases, a Car Parking Impact Assessment Study will be required to demonstrate that the proposal will not necessitate any demand for additional parking and hence, to justify this car parking variation request.

4. Where a departure from the parking rates is sought in association with a change of use development application within Employment Zones, including E1 Local Centre, E3 Productivity Support, E4 General Industrial, and MU1 Mixed Use (excluding Wollongong City Centre), applicants will be required to complete a "Car Parking and Access Checklist" available on Council's website, to assist in a merit-based assessment.

5. Car parking credits for existing land uses/development will only be supported where written evidence is provided which proves that the existing development is operating lawfully in accordance with development consent.

6. For development applications involving a change of use within the E2 Commercial Centre and MU1 Mixed Use zones in the Wollongong City Centre, the provision of additional car parking is not required.

7. For proposed development of a Heritage item, within a potential or identified archaeological site or within a Heritage Conservation Area, consideration may be given for any constraints that may limit the number of car parking spaces reasonably able to be provided on the site (due to potential impacts on the identified significance of the site).

**Note**: The following car parking reductions can be applied in relation to public parking availability and public transport accessibility –

**City Centre E2 Commercial Centre and MU1 Mixed Use Zones** (excluding residential, office premises, retail and business premises uses):

30% reduction due to increased access to public parking and public transport.

**City Wide** (Non-Residential uses only):

10% reduction* if bus stop is within 400m of site (measured along an existing footpath)

20% reduction* if railway station is within 800m of site (measured along an existing footpath)

10% reduction* if public car park with greater than 50 car spaces is within 400m of site (measured along an existing footpath)

*Reductions are cumulative with a maximum final reduction of 30%. However, an applicant can apply for a further 10% reduction on top of the 30% reduction if a Travel Plan is provided as outlined in Section 3.12.

**Note**: This waiver does not apply to residential, only non-residential.

## 3.5 Car Parking Layout and Design

### 3.5.1 Objectives

a) Ensure car parking areas are well-sited and designed as an integrated component of the total development, and do not dominate the streetscape or detract from the overall appearance or continuity of the streetscape.

b) Ensure the layout of car parking areas is in accordance with best practice guidelines.

c) Ensure parking areas and structures are designed to be easily and safely negotiated by vehicles and pedestrians.

d) Ensure car parking in new developments provide the essential infrastructure to allow the charging of electric vehicles and micromobility modes of transport (EV charging ready).

### 3.5.2 Development Controls

1. The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to comply with Australian Standard AS 2890. No sprinklers or other services shall encroach within the clear head clearance height requirement.

2. The layout of all car parking areas shall be in accordance with Australian Standard AS 2890 and the following additional requirements:

   i) vehicles must be able to enter and leave the site in a forward direction without the need to make more than a three point turn.

   ii) stacked parking may be permitted in the following circumstances:

      a. the applicant must demonstrate that there is a need for stacked parking and that the provision of stacked parking will not adversely affect the safe, efficient and effective use of the site.

      b. no more than two cars are parked in a stacked arrangement, so that no more than one vehicle has to move to allow egress of another.

      c. provision shall be made on site for shifting cars without the movement of vehicles onto public streets.

      d. Residential: only permitted where both spaces are utilised by the same dwelling and such spaces do not interfere with common manoeuvring areas; and

      e. Business or Industrial: only permitted for employee spaces, provided the spaces are used by the occupants of one tenancy.

3. Small car spaces will only be permitted where the total quantum of required standard sized car parking spaces has already been provided. Small car parking spaces must be designed in accordance with AS 2890.

4. Car parking areas should be designed to ensure that through traffic is excluded or appropriately managed.

5. Pedestrian entrances / exits are to be separated from vehicular entry / exit points.

6. Developments with high pedestrian movements throughout the car parking area(s) such as major retail shopping centres, commercial offices and major entertainment / recreational facilities must incorporate clear and convenient pedestrian routes. The pedestrian routes within the car parking areas must take into account pedestrian desire lines and minimise potential vehicular / pedestrian conflict points. Pedestrian routes must be well lit and sited to maximise pedestrian visibility.

7. Car parking areas should incorporate traffic calming and pedestrian crossing facilities such as speed humps, raised thresholds, marked pedestrian crossing points and clear directional signage to pedestrian access points within the development. These must be provided within the car park in order to reduce speed and enhance pedestrian safety and accessibility in accordance with AS 2890.

8. Gradients of ramps and access driveways shall be provided in accordance with Australian Standard AS 2890.

9. Wheel stops must be designed and installed in accordance with AS 2890.

10. Pedestrian and vehicular movement is to be clearly separated by use of design devices such as change in paving, kerb, bollards and line marking. Dedicated pedestrian paths are to be included in multi lane parking areas. Pedestrian paths must be a minimum 1.2m wide and have a non-slip finish.

11. The location of car parking spaces and access ways into the development should not detract from the identified significance or setting where a development is proposed in a heritage building or a heritage conservation area.

12. The following forms of Residential development - multi dwelling housing (>10 dwellings), residential flat buildings and shop-top housing, must:

    i) Provide an EV Ready Connection for 100 percent of resident parking spaces (i.e. with appropriate electrical cabling to the parking space to support an electric vehicle charger).

    ii) 100 percent of any parking bays assigned to car share use will provide electric vehicle charging (7kW or greater) from day 1 of operation.

    iii) A minimum 20 percent, or two (whichever is greater), of visitor spaces are to provide electric vehicle charging (7kW or greater) from day 1 of operation.

    iv) Provide EV Distribution Board(s) and associated sub-mains and EV charger circuit breakers at the time of building, and of sufficient size to allow connection of all EV Ready Connections and Shared EV connections to meet minimum specified requirements for “EV Ready” developments. The EV Chargers are to be supplied from dedicated Distribution Boards installed on each car park level (NOT supplied from individual unit switchboards).

    v) All parking spaces must be serviced by a cable tray:

        a. located within 10 metres (as measured from the ceiling at any edge of the parking space).

        b. sized to accommodate the same number of cables as parking spaces the cable tray services.

        c. that terminates at the closest electric vehicle Distribution Board; and

        d. that enables installation of charging stations in individual bays without works that require the consent of the building owner.

    vi) Cable trays and conduits along with the individual EV charger power and load management data cabling from EV charger distribution boards to individual parking spots are to be installed at the time of building.

    vii) All new residential developments referred to in this clause are to be provided with a minimum of one 32Amp dedicated circuit and socket adjacent car parking facilities.

        **Note**: All other types of residential developments where car parking is required in accordance with Schedule 1 of this Chapter, are encouraged to also consider this provision at the time of construction.

    viii) All common property electric vehicle chargers are to be individually metered and equipped with an Open Charge Point Protocol compatible payment system unless the cost of electricity use is borne by the strata.

    ix) Identify on the plans submitted with the Development Application the future installation location of the cable trays from the EV Distribution Board to the car spaces allocated to each dwelling that have an EV Ready Connection, with confirmation of adequacy from an electrical engineer. Spatial allowances are to be made for cables trays and EV Distribution Board(s) when designing in other services.

13. All **new retail, commercial or mixed-use development with a cost of works of $10 million or more** must include electric vehicle charging points at the following rate:

    i) Provide 1 Shared EV connection with a minimum rated power output of 7kW for every 30 commercial car spaces (minimum 2 charging points being provided) distributed throughout the carpark to provide equitable access across floors and floor plates. For large

retail development, the EV charging spaces should be publicly accessible.

ii) All car share spaces and spaces allocated to visitors must have a Shared EV connection with a minimum rated power output of 7kW.

iii) All common property electric vehicle chargers are to be individually metered and equipped with an Open Charge Point Protocol compatible payment system unless the cost of electricity use is borne by the strata.

iv) Identify on the plans submitted with the Development Application the future installation location of the cable trays from the EV Distribution Board to the car spaces allocated that have an EV Ready Connection, with confirmation of adequacy from an electrical engineer. Spatial allowances are to be made for cables trays and EV Distribution Board(s) when designing in other services.

**Note**: the National Construction Code 2022 includes new requirements for renewable energy equipment, electric vehicle charging and battery systems. Section J9D4 contains details for design and provision of distribution boards to support electric vehicle charging in car parks.

## 3.6 At Grade Car Parking Areas

### 3.6.1 Objectives

a) Ensure car parking areas are well-sited and designed as an integrated component of the total development and do not dominate the streetscape or detract from the overall appearance or continuity of the streetscape.

b) Integrate landscaping into at grade car parking areas to improve aesthetics, provide visual relief and screen car parking from the public domain and adjoining properties.

c) Ensure shade is provided to car parking areas.

d) Ensure strategic tree planting, establishment of landscaping buffers and an appropriate selection of tree/shrub species.

e) Reduce Urban Heat Island effect associated with car parking areas.

### 3.6.2 Development Controls

1. Where at grade car parking is to be provided in centres, locate parking to the rear of the site to allow buildings to define the street edge and contribute to the streetscape.

2. Any above-ground parking is to be sleeved behind a landscaped podium so it is not visible from the public domain.

3. Landscaping should be used throughout the car parking areas at regular intervals and around the perimeter of the car parking areas.

4. Car park layouts and planting design should be designed in consideration of Crime Prevention Through Environmental Design (CPTED).

5. A minimum 3 metre wide front landscape area is required along local roads.

6. A minimum 5 metre wide front landscape area is required along arterial or sub-arterial roads.

7. A minimum 5–10 metre front landscaped area is required for industrial developments, depending upon the scale and height of the development.

8. A minimum 1.5 metre wide side landscaped buffer is required around all car parking areas.

9. A minimum 3 metre wide landscaped area is required at the rear of the site to address the bulk and scale of the development when it abuts a different zoning or land use.

10. Parking bays must be dispersed with tree planting to reduce heat and improve shading. No more than 10 parking bays should be provided without a tree planting bay.

11. Tree planting must provide shade to at least 50% of parked vehicles.

12. Trees must be planted in dedicated island planting bays. Each planting bay must be a minimum of 2.5 metre wide and 5.5 metre long to support healthy root development. Planter beds must have sufficient deep soil area for trees and shrubs to grow.

13. Planter beds must have sufficient soil area for trees and shrubs to grow.

    Soil preparation must include a minimum depth of 600mm to ensure adequate soil volume for root growth. Soil composition must include suitable organic matter and drainage provisions to support long-term tree health.

14. The planting of trees and larger shrubs should occur in the centre of the landscape planter beds with small shrubs and groundcovers positioned at the edge of the planter boxes.

15. Planting beds must be mass-planted with understory vegetation to enhance soil health, reduce urban heat and improve visual appeal.

16. Trees and shrubs in car parks should be long lived species that do not drop branches, gum or fruit, and species which do not interfere with underground stormwater drainage pipes.

17. Medium-sized tree species must be selected based on:

    i) Local climate conditions

    ii) Suitability for urban environments

    iii) Ability to provide shade and integrate with the surrounding landscape

18. Any existing trees with a satisfactory Safe Useable Life Expectancy (SULE) rating should be retained within the car parking area, wherever practicable.

19. A fully automatic irrigation system is required in all car park planter beds. Tree root barriers should be installed around the edge of the planter beds to reduce future maintenance.

20. Wheel stops or 150mm concrete kerbs or edge treatments must be installed to prevent vehicles encroaching upon the landscaped areas. The use of bollards may also be appropriate in certain circumstances.

## 3.7 Basement Car Parking

### 3.7.1 Objectives

a) Integrate the siting, scale and design of basement or sub- basement car parking into the site and building design.

b) Ensure best practice design and construction of basement car parking, to ensure no ground settlement or movement, changes to groundwater level and/or adverse vibration impacts during construction which may negatively impact adjoining property or service infrastructure.

c) Protect existing natural groundwater flows, downstream waterways and downstream properties from seepage.

### 3.7.2 Development Controls

1. The design of basement car parking and access should comply with AS2890 and should support the use of natural ventilation where possible.

2. The design of basement car parking should be integrated with the overall design of the development, and limiting the extent to which the podium extends beyond the building footprint will minimise the impact of the basement parking areas on the streetscape.

3. A minimum 2.2 metre headroom height shall be provided throughout any basement car parking and traffic circulation area.

4. Ventilation structures/openings/exhausts for basement parking and air-conditioning units must be orientated away from windows of habitable rooms and private open space areas on the subject site as well as adjoining sites. Ventilation grills must be integrated into the design of the façade of the building to minimise their visual impact.

5. The visual impact of all basement walls must be minimised through the use of various design techniques including well-proportioned ground level articulation and relief, mixed finishes, and materials, terracing and/or dense landscaping.

6. Basements must be protected from inundation from 100-year ARI flood levels (or greater). Flood proofing of the vehicular access, fire escape any ventilation openings must be demonstrated.

7. A site hydrogeology report, produced by a suitably qualified Hydro-geologist, is required prior to any design or construction work to determine the soil structure and level and flow regime of groundwater beneath the site. A minimum of 3 locations on the site should be investigated to allow triangulation of results to determine flow direction and hydraulic gradient. The scope of investigations and planning required is outlined in "Minimum requirements for building site groundwater investigations and reporting (DPE 2022)".

8. The results of the hydrogeology report will determine if detailed investigations are required to develop a Groundwater Management Plan. The following must be reported as a minimum:

    i) Depth to water table.

    ii) Recharge characteristics of water table.

    iii) Presence of contaminated soils.

    iv) Presence of contaminated surface water.

    v) Presence of contaminated groundwater.

    vi) Salinity level of groundwater.

    vii) Potential for underground structure to interact with the groundwater flow regime.

    viii) Proximity to nearby structures and how they may be affected by the proposed works.

9. Aquifer interference activities must be licensed to account for all water taken, have an approval, and must be designed and managed to ensure impacts are acceptable. Prior to any excavation starting, one or more of the following approvals will be needed:

    i) A water access licence.

    ii) Water supply works approval.

    iii) Aquifer interference activity approval.

    **Note**: Excavation for building basements that receive groundwater inflows, or seepage, is a

type of "*aquifer interference activity*".

10. Best practice basement construction for a car park is considered to include engineered drainage around and beneath a fully tanked dry basement to restore natural groundwater flow conditions once construction of the building has been completed. A **fully tanked dry basement design with no AG drain collection or disposal and an allowance made for any hydrostatic pressures** is considered waterproof and is designed to withstand the hydrostatic pressure of a saturated soil. This type of system requires no groundwater collection and is the default method of construction required by Council. The tanked basement design must demonstrate minimal harm and the completed structure must demonstrate minimal impact to predevelopment groundwater flow.

    If a tanked basement design is impossible, reasons are to be provided and an alternative design must demonstrate compliance with "Minimum requirements for building site groundwater investigations and reporting (DPE 2022)".

11. Even with a watertight boundary it is recommended that underground car park levels be equipped with positive draining systems linked to pumps and sumps to allow surface run-off and wash-down water to be removed (and also in case the watertight perimeter is compromised in some way – e.g. service connections and ducts that can lead to water ingress).

12. Council will not accept a Pump and Sump System where groundwater is pumped into the stormwater – this system represents an unacceptable risk to Council in terms of potential negative environmental impacts.

13. Council will not accept any groundwater discharge (including AG drain) or basement seepage into the stormwater system. Overflow from a reuse system is also not permitted to be discharged to stormwater.

    **Note**: Discharging groundwater to the stormwater drain reduces the capacity of the drain to handle rainfall events and can lead to excessive flooding. It also impacts ability to reuse stormwater as a harvesting asset.

14. A temporary Trade Waste Agreement is required for discharge to the **sewer network** as part of any de-watering processes. A Dewatering Management Plan and Dewatering Completion Report will be required to support a water supply works approval application.

15. Waste collection vehicles may enter building basements to collect waste and/or recyclables subject to the following requirements:

    i) Compliance with AS 2890.

    ii) The height to the structural members and upper floor ceiling should allow for collection vehicle travel height/operational height, consistent with the type of vehicle nominated as the waste collection vehicle.

    iii) Adequate provision of space clear of structural members or vehicle parking spaces to allow a typical three-point turn of collection vehicles or alternatively, provision should be made for a truck turn table within the basement car parking area; and

    iv) The basement floor should be of industrial-type strength pavement and designed for a maximum wheel loading of seven tonnes per axle to accommodate garbage and recycling collection vehicles.

16. Wheel stops are to be provided to all car parking spaces to minimise vehicle accidents / damage and to prevent vehicle encroachment into public domain areas or landscaping.

## 3.8 Mechanical Parking Systems

### 3.8.1 Objectives

a) Provide for the use of mechanical parking systems where provision of conventional car parking (i.e. at grade or basement) is not appropriate, and the proposed mechanical parking system is not a result of an overdevelopment of the site.

### 3.8.2 Development Controls

1. Any application for the use of mechanical parking systems must demonstrate to the satisfaction of Council that the provision of conventional car parking i.e. either at-grade or basement car parking) is not appropriate given inherent site constraints, and that the proposed mechanical parking system is not a result of an overdevelopment of the site.

2. Mechanical stacked car parking systems will only be considered to meet the car parking needs of owners / tenants only. Mechanical stacked car parking will not be supported for shared use or for visitor parking.

3. Where it is proposed to incorporate a mechanical parking system within a development, the following information is required, as part of a Car Parking / Traffic Impact Assessment Study:

   i) The company make and model of the proposed mechanical car parking stacking system.

   ii) Demonstrated compliance with all relevant clauses of AS2890.

   iii) Demonstrated minimum internal headroom clearance of 1.90 metre in the entry level of the system.

   iv) Demonstrated minimum internal vertical clearance of 1.55 metre on all other levels within the parking system.

   v) Details of security measures restricting the use of the system to owners / permanent residents of the building only (e.g. security keypads).

   vi) Details of noise and vibration associated with the use of the system.

   vii) Details of a waiting bay, demonstrating that vehicles can safely and conveniently wait at the entry level for other vehicles to manoeuvre to or from the parking system. Waiting bays must be designed so as to not obstruct traffic flow within the parking level and to prevent any on-site queuing. Waiting bays would typically have identical dimensions to parking spaces as per AS2890 and are additional to the parking requirement of the development.

   viii) Assessment of the likely vehicle queuing impacts associated with system, with reference to the operating times of the system, peak vehicle movements and available queue lengths within the parking area.

   ix) Swept path turning templates demonstrating the ability of vehicles to turn into and out of the system in a single movement.

   x) Assessment of the adequacy of the facility to cater for a range of vehicles from small sports cars up to large 4WDs (i.e. the facility is capable of storing the 100$^{th}$ percentile vehicle).

   xi) Proposed management procedures to be implemented in the running of the facility, including emergency response procedures.

**Note**:

- All visitor and customer parking spaces and those spaces associated with adaptable housing must be provided in at-grade positions (i.e. separate to any mechanical parking system), and
- The mechanical car parking stacker system and all associated infrastructure such as pits and ceiling indentations must be clearly shown on the architectural drawings of the car parking area, at the time of lodgement of the Development Application.

## 3.9 Emergency Vehicles

### 3.9.1 Objectives

a) Ensure best practice design and layout of car parking to facilitate access for emergency vehicles, such as fire service, ambulance and police vehicles.

### 3.9.2 Development Controls

1. The location of car parking must not impede access for emergency vehicles.

2. Emergency vehicles must have unimpeded access to water and gas systems.

**Note**: *refer to "Access for fire brigade vehicles and firefighters (2019).*

## 3.10 Public Car Parks

### 3.10.1 Objectives

a) Ensure public car parks are designed in accordance with best practice standards.

b) Minimise the potential adverse queuing problems onto public roads associated with boom gates, by ensuring adequate queuing lengths are available on site.

### 3.10.2 Development Controls

1. The establishment and operation of a public carpark requires formal consent and may also require concurrence with TfNSW if the carpark triggers the threshold levels contained in SEPP (Transport and Infrastructure) 2021.

2. The design and location of any boom gate, and the minimum queue length required within the site, must be in accordance with the requirements of AS2890.

## 3.11 Car Park Construction Requirements

### 3.11.1 Objectives

a) Ensure car parking construction is provided in accordance with best practice guidelines

### 3.11.2 Development Controls

1. All car parking areas and internal roads must be constructed of a hard-standing all-weather material (i.e. concrete or asphalt bitumen), which must be maintained to the satisfaction of Council, at all times.

2. The pavement construction shall be in accordance with the Subdivision Code and Council's Development Design and Construction Specifications requirements.

3. For large industrial or commercial office developments or major retail shopping centres, car parking areas should be designed to include water sensitive urban design treatment measures, in order to encourage infiltration of stormwater run-off rather than direct discharge of stormwater run-off into the piped drainage system.

4. Alternatively car parking areas may be sealed with an all-weather surface and high flows managed by detention storage and pollutants removed by suitably designed, installed and maintained devices (GPT, grass swales etc). Minimum trafficked area surface standards in this case are:

5. Low parking turnover (<50 movements) - flush seal (i.e. two coat bitumen spray).

6. High parking turnover (>50 movements) - asphalt concrete.

7. All parking area surfaces will be certified by a suitably qualified Engineer prior to occupation or use.

8. All car parking and manoeuvring areas shall be permanently line marked as detailed in *AS2890*.

## 3.12 Travel Plans

### 3.12.1 Objectives

a) Reduce car trips and encourage the use of sustainable transports.

### 3.12.2 Development Controls

1. Development proposals that meet the following criteria must prepare a Travel Plan:

   i) Educational establishments allowing an additional 100 students; or

   ii) Residential development containing 50 or more dwellings; or

   iii) Non-residential development which comprises a gross floor area (GFA) of 2,000m² or more and alterations and additions which increase the GFA to 2,000m² or more.

2. For any other developments a Travel Plan is encouraged. Subject to a written agreement and conditions of consent to implement a Travel Plan, Council may reduce the required number of car parking spaces for development (an applicant can apply for up to a further 10% reduction above anything allowed CL 3.4 if a Travel Plan is provided).

Components/strategies of a Travel Plan will likely vary according to the nature of the development, but may include:

i) identification and promotion of public transport options for employees/customers accessing the site e.g. via website, business cards, real time public transport arrival and departure boards in entry/exit lobbies of building.

ii) preparation of a Transport Access Guide (TAG) for the site/venue.

iii) encouragement of car share or a carpool system for employees.

iv) encouragement of cycling and walking to the workplace through provision of secure bicycle parking, showers and lockers.

v) incentive schemes to encourage employees to commute using sustainable transport modes (such as provision of public transport vouchers/subsidised public transport tickets).

vi) provide employees with cycling allowances, loans and/or insurance.

vii) park and ride facilities.

viii) prominent display of a large map of cycling routes for employees/customers and residents (for example, in the foyer of a residential complex).

ix) Provision of services to reduce the need for travel (e.g. childcare, gym, convenience store, remote co-working space, video/teleconferencing facilities).

Please refer to the “Travel Demand Management’ webpage by TfNSW for guidance on preparing

a Travel Plan (***Travel Demand Management | nsw)*.**

The undertakings made in the submitted Travel Plan will be included as conditions of consent to the development.

# 4. ACCESS

## 4.1 Vehicular Access

### 4.1.1 Objectives

a) provide adequate and safe vehicular access to car parking areas in accordance with best practice guidelines

b) ensure that all car parking areas have satisfactory manoeuvring areas to enable vehicles to leave the site in a forward direction

c) Minimise traffic flow impacts/conflicts through the provision of appropriate parking vacancy and directional signage.

### 4.1.2 Development Controls

1. Access to off-street parking areas must comply with Council's Standard Vehicle Entrance Designs, with any works within the footpath and road reserve subject to a section 138 *Roads Act 1993* approval.

2. Sight distances to be used for assessment and determination of a suitable driveway location shall be obtained from AS 2890 for car use and any access to be used by a commercial vehicle.

3. Driveway grades, vehicular ramp width/grades and passing bays must be in accordance with AS 2890.

4. Generally, direct access to arterial or sub-arterial roads will not be permitted, except where no legal alternative access is available.

5. Where a development site has dual frontage to a classified road and a secondary road, all driveway crossings (i.e. entry and exit points) are to be provided via the secondary road unless it can be demonstrated that this arrangement will have an unacceptable impact on road safety and traffic efficiency. This must be justified with suitable studies or modelling.

6. In cases where an access to a classified road is permitted, a deceleration lane may be required, in order to maintain traffic flow movements along the classified road and to minimise potential rear end vehicular accidents which may otherwise occur where vehicles turn into the site from a trafficable lane.

7. The area required for any deceleration lane must be provided within the development site itself with this portion of the land being dedicated as public road at no cost to TfNSW or Council. Any necessary relocation of public infrastructure required due to a deceleration lane must be detailed in the architectural / section plans lodged with the Development Application with the costs of any such relocation, being fully borne by the developer.

8. For large retail shopping centres and major entertainment / recreation facility developments with separate or multi-level car parking areas, Council may require the provision of electronic parking vacancy signage at each entry to the car parking area or each carpark level, in order to minimise potential additional traffic flow movement impacts within the development and upon the surrounding road network arising from patrons having to access different car parking areas in the development, in endeavour to find a vacant car parking space.

9. All car parking areas shall be provided with appropriate entry and exit advisory signage to direct vehicles into / from the carpark and to minimise potential vehicular conflicts. The details

of the proposed entry / exit signage shall be reflected on the architectural plans submitted with the Development Application.

10. Where a one-way traffic circulation flow is proposed, all internal roads within car parking area shall be appropriately line marked with directional (arrow) signage to clearly indicate the direction of traffic circulation and to minimise potential vehicular conflicts. This requirement shall be reflected on the architectural plans (i.e. car parking layout plans) to be submitted with the Development Application.

11. All advisory signage and pavement marking is to be provided in accordance with AS 2890.

## 4.2 Pedestrian Access

### 4.2.1 Objectives

a) Ensure pedestrian access facilities are designed to be safe and in accordance with best practice guidelines.

### 4.2.2 Development Controls

1. New driveway crossings are required to be constructed at grade to facilitate and support access for pedestrians and disabled persons to and within the site.

2. Footpaths are to be provided for pedestrians to move from adjacent streets and footpaths onto the site and to destinations within the site. Particular attention is to be given to the movement of pedestrians to and from public transport stops, bicycle parking areas and disabled parking areas. Depending on the expected volumes of pedestrian traffic, weather protection for key pedestrian movement corridors should be integrated into the building design.

3. Provision for access by vehicles and vehicle parking is not to compromise the equity and amenity of pedestrian access.

4. Pedestrian facilities are to be designed in accordance with AUSTROADS Guide to Traffic Management.

# 5. LOADING / UNLOADING FACILITIES AND SERVICE VEHICLES MANOEUVRING

## 5.1 Objectives

a) Ensure site design allocates adequate space for the loading, unloading, parking and manoeuvring of delivery and service vehicles within the subject property, without reliance on public space and loading zones, in accordance with best practice guidelines.

b) Ensure adequate areas are set aside on site to allow for the safe and efficient manoeuvring of delivery and service vehicles, and that access for these vehicles minimises any potential vehicular and/or pedestrian conflicts.

c) Reduce the impact of delivery and service vehicles on adjoining development and public spaces.

## 5.2 Development Controls

1. Site design must allocate adequate space for the loading, unloading, parking and manoeuvring of delivery and service vehicles within the subject property. Design of these areas shall comply with AS 2890.

2. Loading /unloading facilities shall be provided for the following land uses:

i) Retail shopping centres / specialty retail shops,

ii) Commercial Offices / Business Development,

iii) Specialised retail premises,

iv) Factory,

v) Warehouse distribution centre,

vi) Light industrial retail outlets,

vii) Landscape supplies establishment,

viii) Retail or Wholesale Nursery,

ix) Residential flat building/Multi-dwelling housing/Shop top housing,

x) Seniors housing (including housing for people with a disability),

xi) Take away food premises,

xii) Food and drink premises,

xiii) Kiosk,

xiv) Function,

xv) Function centre,

xvi) Medical centre /health consulting room,

xvii) Pub / Registered Club,

xviii) Funeral home / Funeral chapel,

xix) Other development requiring loading or unloading facilities.

3. Development applications must demonstrate that any commercial or industrial use can be operated, maintained, supplied, and serviced without disruption to the surrounding amenity.

4. Loading bay provision is to be in accordance with Section 5.3 of this Chapter and the Transport for NSW Guide to Traffic Generating Development.

**Note**: The Statement of Environmental Effects (SEE) or the Parking and Traffic Impact Assessment Report must include details of the anticipated volume and frequency of deliveries, and the size of vehicles necessary to service the proposed development.

5. Schedule 1 identifies the various types of service vehicles to be catered for within the various development types. Special vehicles such as buses, garbage trucks and ambulances may have particular access, manoeuvring and operating conditions. The designer or applicant should refer to *AS 2890.2 Off-street parking (Part 2: Commercial vehicle facilities)* and Guide to Transport Impact Assessment (TfNSW 2024).

6. Table 2 provides the minimum parking / service bay and manoeuvring requirements for delivery and service trucks.

**Minimum Parking / Service Bay and Manoeuvring Design Requirements for Service and Delivery Trucks - Table 2**

| Truck Type | Design Dimensions | Design Turning Template |
|---|---|---|
| Small Rigid Vehicle | Minimum length – 6.4m<br>Minimum height clearance – 3.5m | As per *AS 2890.2* |
| Medium Rigid Vehicle | Minimum length – 8.8m<br>Minimum height clearance – 4.5m | As per *AS 2890.2* |
| Large Rigid Vehicle | Minimum length – 12.5m<br>Minimum height clearance – 4.5m | As per *AS 2890.2* |
| Articulated Vehicle (Semi- Trailer) | Minimum length – 19.0m<br>Minimum height clearance – 4.5m | As per *AS 2890.2* |

## 5.3 Loading / Unloading and Manoeuvring Area Requirements Development Controls

1) All small rigid trucks through to large rigid trucks and articulated heavy vehicles (semi-trailers) must be able to manoeuvre entirely on-site and enter and leave the site in a forward direction. All truck turning or manoeuvring areas must be separate from areas of normal pedestrian or vehicular traffic.

2) All loading and unloading activities shall take place wholly within the loading bay, at all times. No loading or unloading activity shall take place within any car parking area, landscaping area, pedestrian footway or any public road reserve.

3) The designated loading / unloading area shall be kept free for that purpose, at all times.

4) Loading / unloading facilities shall be located so they are not visible from any adjoining residential area and do not transmit excessive noise onto any adjoining residential area.

5) All loading dock facilities must guarantee satisfactory on-site manoeuvring areas for trucks in accordance with the Australian Standard AS 2890.2 Design Vehicular and Turning templates. Council will assess the adequacy of proposed manoeuvring areas provided for on-site truck manoeuvring with reference to the standard vehicle turning templates as per the Australian Standard AS 2890.2 Design Vehicular and Turning templates.

6) All developments must be designed to ensure that the standard truck for each development as per Table 2 is able to complete a semi-circular turn on the site, in order to guarantee that all truck movements into / from the site are in a forward direction.

7) Truck turning circles shall not encroach upon any building, car parking space or landscaped area.

8) Access arrangements should be designed in accordance with the Guide to Transport Impact Assessment (TfNSW 2024) and Australian Standard AS 2890. However, it is desirable that separate access arrangements be made available for standard passenger vehicles and trucks upon the development site, in order to minimise potential vehicular conflicts.

9) All internal two-way access roads shall have a minimum width of 7 metres. Lesser widths may be provided if the internal road system is designed to a single one-way circulation arrangement within the site including any loading dock facilities. Directional signage shall be shown on all internal roadways (where required) to facilitate the orderly movement of trucks and other vehicles within the site.

10) As per the provisions of the National Construction Code, emergency vehicular access must be provided from a public road. In this respect, the internal access road must have an

unobstructed 6 metre width with no part of the building being more than 18 metres away from the access road. The minimum 6 metre wide access road shall be reserved for vehicular and pedestrian access only and not built upon or used for any other purpose.

11) Loading docks should also be positioned wherever possible, away from the street frontage. Where such facilities can only be provided to the street frontage, appropriate landscaping will be required in front of the loading facility to adequately screen the development.

12) All loading / unloading and manoeuvring areas should be located as far as practicable away from any abutting residential or other sensitive development. Where these activities are likely to result in loss of amenity in nearby residential areas, visual and acoustic screening approved by Council may be required to minimise the potential loss of amenity to adjoining residential or other sensitive development.

13) Queuing associated with the loading dock must not impact the operation of adjacent car parking areas, pedestrian paths, internal circulation roadways or public roads.

14) Service areas and loading docks (including spaces for bike couriers) should be designed to cater for the vehicles and servicing operations anticipated to occur in a particular development. Loading facilities and service areas should be visually unobtrusive and preferably:

    i) located via a rear lane or side street, where such access is available.

    ii) located completely within the boundary of the site, clear of other parked vehicles.

    iii) located near vehicle entry points and near lifts.

    iv) located near dedicated service lifts.

    v) clearly designated and signposted for service vehicles only.

    vi) screened from public view.

    vii) clear of through traffic.

    viii) designed to be perpendicular to lane frontage.

15) The use of loading docks must not conflict with the safe efficient circulation of pedestrians and other vehicles on-site.

16) Service vehicle parking spaces are to be designed in accordance with the respective vehicle class in Australian Standard ‘AS 2890.1 and AS 2890.2: Section 4.2 Dimensions of service bays.

17) Service vehicle parking and loading areas are to be provided as a priority over private parking spaces.

18) The following requirements set out the minimum number of service vehicle parking bays, by gross floor area (GFA) of each land use, that must be delivered within new developments in accordance with Schedule 1.

**Table 3: Service Vehicle Parking Bay Requirements**

| **Land Use** | **Gross Floor Area (sqm)** | | | | | |
|---|---|---|---|---|---|---|
| Office premises or business premises | 0 - 4,999sqm | 5,000sqm - 9,999sqm | 10,000sqm – 14,999sqm | 15,000sqm – 19,999sqm | 20,000sqm – 24,999sqm | 25,000sqm and greater |
| Retail premises: | 0 - 599sqm | 600sqm - 1,199sqm | 1,200 sqm – 1,799sqm | 1,800sqm - 2,399sqm | 2,400sqm – 2,999sqm | 3,000sqm and greater |
| Residential Flats and serviced apartments | 0 - 7,499sqm | 7,500sqm - 14,999sqm | 15,000sqm – 22,499sqm | 22,500sqm – 29,999sqm | 30,000sqm – 37,499sqm | 37,500sqm and greater |
| Hotel and motel accommodation | 0 - 6,499sqm | 6,500sqm - 12,999sqm | 13,000sqm – 19,499sqm | 19,500sqm 25,999sqm | 26,000sqm – 32,499sqm | 32,500sqm and greater |
| | | | | | | |
| **Number of service (loading) bays required** | **1** | **2** | **3** | **4** | **5** | **6** |
| Breakdown of service (loading) bays required | 1 provided for design vehicle (Schedule 1) | 1 provided for design vehicle (Schedule 1), plus 1 van parking space | 1 provided for design vehicle (Schedule 1), plus 2 van parking space | 1 provided for design vehicle (Schedule 1), plus 3 van parking space | 1 provided for design vehicle (Schedule 1), plus 1 SRV loading bay, plus 3 van parking space | 1 provided for design vehicle (Schedule 1), plus 1 SRV loading bay, plus 4 van parking space |

**Note**:

1. For mixed use developments the requirements for each land use are to be added together. If the requirements for land uses are compatible, details of how they will be shared should be outlined in the Statement of Environmental Effects or the Traffic Impact Assessment lodged with a development application.
2. Hotels with significant floor space for commercial, retail or food and drink premises are to provide service bays for those land uses in accordance with sections 5.2 and 5.3 above.
3. Van parking space dimensions are to be for User Class 3A as outline in AS2890.1.

## 5.4 Noise Impact Assessment Associated with Loading / Unloading Facilities Development Controls

1) The submission of a noise impact assessment report may be required with a development application where loading dock facilities are proposed to be positioned in proximity to any adjoining noise sensitive land uses such as residential dwellings, seniors housing and educational establishments etc. This requirement will be at the discretion of Council. Any required noise impact assessment report is to be prepared by an acoustic consultant who is a member of either the Australian Acoustical Society or the Association of Australasian Acoustical Consultants.

2) The NSW Road Noise Policy (EPA 2011) is to be used for the assessment of potential traffic noise impacts from the site.

3) The noise impact assessment report will be required to address the existing $L_{A90}$ background

and $L_{Aeq}$ equivalent continuous noise levels at the boundary to the nearest residential land uses during the daytime, evening and night-time periods. The noise impact assessment report must also address the predicted $L_{Fmax}$ (maximum noise level), $L_{A1}$ (the noise level exceeded for 1% of the measurement period) and LA10 (the noise level exceeded for 10% of the measurement period), particularly in respect to the loading and unloading activities conducted within the loading dock facility of the development. The noise impact assessment report should also apply the NSW Noise Policy for Industry (EPA 2017) in determining the noise impact upon sensitive residential land uses and the potential for sleep disturbance from maximum noise level events from the development during the night-time period.

4) Any noise impact assessment report shall also provide recommendations on acoustic attenuation measures required to be provided to improve the acoustic performance of the loading dock facility and / or other operational restrictions (i.e. restricted delivery times for delivery trucks), bearing in mind the nature and frequency of proposed truck deliveries to / from the site and the predicted noise impacts arising from loading / unloading activities.

## 6. SAFETY AND SECURITY (CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN) MEASURES FOR CAR PARKING AREAS

### 6.1 Objectives

a) Ensure car parking areas are designed using Crime Prevention Through Environmental Design (CPTED) principles and best practice guidelines.

### 6.2 Development Controls

1. The soffit of the roof slab, all walls and all columns of any basement car parking area in addition to the interior of all lift foyer areas, fire exits and other staircases must be painted in a white finish, in order to improve the visibility throughout the car park and to minimise potential ‘dark spots’.

2. The exit fire stairs should also be wide and open, in order to improve visual surveillance into these areas from the car parking and traffic circulation areas within the facility.

3. The car parking area should also be designed to prevent blind corners and to maximise visibility and sightlines for both persons in vehicles and pedestrians.

4. All car parking spaces should be visible to approaching vehicles and not ‘hidden’.

5. All pedestrian areas should follow pedestrian desire lines and be well lit.

6. The lighting of car parking areas must be in accordance with AS 1680 and lighting levels must be in accordance with AS 1680.2 Table E1 or higher if required for monitoring of the car park and access points by closed circuit television (CCTV).

7. All emergency lighting and exit lights are to be provided with “vandal – resistant” fittings suitable for use in an unsupervised car park.

## 7. STORMWATER DRAINAGE / WATER SENSITIVE URBAN DESIGN

### 7.1 Objectives

a) Mitigate detrimental effects on the downstream stormwater environment by minimising peak flow rates and pollutants discharged from the site.

### 7.2 Development Controls

1. Refer to the Stormwater Management chapter contained in Part E of this DCP for stormwater

drainage and on-site stormwater detention requirements for off-street car parking and access areas.

2. For certain developments, the Water Sensitive Urban Design treatment measures may also be required for car parking and access areas in accordance with the requirements of the Water Sensitive Urban Design chapter in Part E of the DCP.

3. A Stormwater Management Plan is to be submitted with any Development Application detailing water sensitive urban design and utilisation of landscaped features to disperse, filter and infiltrate car park runoff.

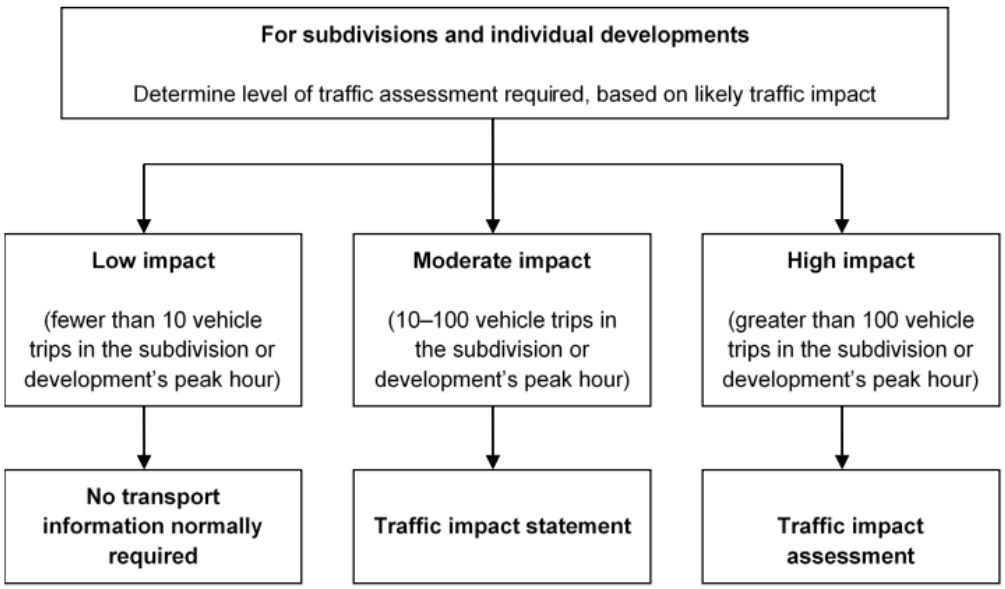
## 8. DEVELOPMENT APPLICATION INFORMATION REQUIREMENTS

The following information may be required to be submitted by the applicant in support of a development application – these studies/plans must be prepared by a suitably qualified and experienced consultants. The need for this information will be determined by Council at the pre-lodgement phase and the level of Traffic Assessment is to be determined by Austroads Guide to Traffic Management Part 12: Figure 5.1:

- Car Parking and Traffic Impact Assessment Study
- Intersection and/or network modelling of potential traffic impacts of the proposed development (including submission of electronic modelling files to Council)
- Preliminary/Final Construction Traffic Management Plan
- Public Transport Study
- Travel Plan
- Noise Impact Assessment
- Geotechnical Report
- Hydro-geological Report
- Landscape Concept Plan

**Note**: Guide to Transport Impact Assessment (TfNSW 2024) contains methodology guidance.

**Figure 5.1: Level of traffic assessment required for developments**




*Source: Modified from Western Australian Planning Commission (2006).*

Figure 1 – Austroads Guide to Traffic Management Part 12 - Figure 5.1

## 9. DEFINITIONS

**Active Transport** means Transport that requires individual physical effort to provide mobility. For personal travel, this includes walking, use of a wheelchair or mobility aid, cycling using a bicycle (without power assistance) and power-assisted micromobility. Active forms of transport for freight delivery include both pedal-powered and electric power-assisted cargo bikes

**Aquifer** means a geological structure or formation, or an artificial landfill, that is permeated or with water or is capable of being permeated with water.

**Aquifer Interference Activity** means an activity involving any of the following:

i) the penetration of an aquifer,

ii) the interference with water in an aquifer,

iii) the obstruction of the flow of water in an aquifer,

iv) the taking of water from an aquifer in the course of carrying out mining, or any other activity prescribed by the regulations,

v) the disposal of water taken from an aquifer as referred to in paragraph iv).

**AUSTROADS** means AUSTROADS: *"Guide to Traffic Management".*

**Construction de-watering** means the removal of groundwater or surface water from a site – in construction the water is pumped from wells or sumps to temporarily lower the groundwater levels to allow excavation in dry and stable conditions below natural groundwater level.

**GFA** means "Gross floor area" and is defined in the LEP.

**Groundwater** refers to any water occurring in or obtained from an aquifer and includes any matter dissolved or suspended in any such water. Its presence at a particular depth may be temporary or permanent. During construction, any water that resides below the natural ground surface is classified as groundwater.

**Micromobility Device** means small, lightweight, power-assisted vehicles operating at low speeds, to carry one person plus a child or other passenger, or a small load, for example, e-bikes and e-scooters.

**Minimal Harm** refer to Minimum requirements for building site groundwater investigations and reporting (DPE 2022).

**Seepage** means water that seeps from the ground around the building basement.

**Structurally integral protection** means chemically-enhanced water-resistant concrete used in combination with a waterproof membrane.

**Tanking** means a continuous waterproof barrier is applied to the inside or outside of the basement structure, or an external membrane can be painted or sprayed onto the external surface which can be covered by a drainage board to provide protection from backfill.

**Travel Plan** means a strategy designed to encourage the use of environmentally friendly transportation methods, aiming to reduce reliance on private cars and promote alternatives like walking, cycling, public transport and carpooling.

## 10. SCHEDULE 1 – CAR PARKING, BICYCLE, MOTORCYCLE AND DELIVERY VEHICLE PARKING REQUIREMENTS

**Note**: Variations to controls is Schedule 1 may be considered if supporting information is submitted in accordance with Cl 3.4 of this Chapter.

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| Boarding house | Provided as per rates given within the State Environmental Planning Policy (Housing) 2021 | | | NA |
| Dwelling house | City wide:<br>1 space per dwelling with a gross floor area of less than 125m$^2$; or<br>2 spaces per dwelling with a gross floor area of 125m$^2$ or greater<br>Wollongong City Centre:<br>1 car parking space per dwelling | NA | NA | NA |
| Dual occupancy | City wide:<br>1 car parking space per dwelling (<125m$^2$) or 2 car parking spaces per dwelling (125m$^2$ or greater)<br>Wollongong City Centre (R1 General Residential Zone):<br>1 car parking space per dwelling | NA | NA | NA |
| Residential flat building / multi-dwelling housing<br>/ Shop top housing / Attached Dwelling | City wide:<br>1 car parking space per dwelling (<70m$^2$) or 1.5 car parking spaces per dwelling (70-110m$^2$) or 2 car parking spaces per dwelling (>110m$^2$), plus 0.2 car parking spaces per dwelling for visitors<br>Wollongong City Centre or within 400m of railway station (measured along existing footpath):<br>0.5 car parking space per dwelling (<70m$^2$) or 1 car parking space per dwelling (70-110m$^2$) or 1.25 car parking spaces per dwelling (>110m$^2$), plus 0.2 car parking spaces per dwelling for visitors | 1 bicycle<br>space per 3 dwellings (residents) and<br>1 bicycle<br>space per 10 dwellings (visitors) | 1 motorcycle space per 15 dwellings | Large Rigid Vehicle (Waste Contractor)<br>>10 dwellings – side loading waste collection vehicle (refer to Chapter E7: Waste Management) |
| Housing for seniors and people with a disability (Hostels, | Provided as per rates given within the State Environmental Planning Policy (Housing) 2021 | | | Large Rigid Vehicle |

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| Residential Care Facilities and Independent Living Units) | | | | |
| Hospitals | City wide:<br>I car parking space per medical practitioner plus 1 car parking space per 2 employees plus 1 car parking space per 2 beds. | Employees<br>1 bicycle space per 5 practitioners /professionals<br>Customers/Visitors<br>1 bicycle space + 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car spaces | Large Rigid Vehicle |
| Bed and breakfast accommodation | City wide:<br>As per dwelling house plus 1 car parking space per guest bedroom | Employees<br>1 bicycle space per 4 employees<br>Customers/Visitors<br>1 bicycle space per 10 beds | 1 motorcycle space per 10 guest bedrooms | NA |
| Tourist and visitor accommodation | City wide:<br>1 car parking space per 2 employees plus 1 car parking space per apartment / unit | Employees<br>1 bicycle space per 4 employees<br>Customers/Visitors<br>1 bicycle space per 20 rooms / 1 per 10 beds | 1 motorcycle space per 10 apartments / units | Small Rigid Vehicle |
| Office premises / Business premises / Retail premises | City wide (excluding the E2 Commercial Centre and MU1 Mixed Use zones in Wollongong City Centre):<br>1 car parking space per 25m$^2$ of GFA<br>– Retail premises<br>1 car parking space per 40m$^2$ of GFA<br>- Office premises / Business premises<br>Zone MU1 Mixed Use in Wollongong City centre (as per Wollongong LEP 2009):<br>1 car parking space per 60m$^2$ of GFA<br>- Office premises / Business premises / Retail premises<br>Zone E2 Commercial Centre in Wollongong City Centre (as per Wollongong LEP 2009): | 1 bicycle space per 200m$^2$ GFA<br>for employees plus 1 bicycle space per 750m$^2$ GFA for visitors<br>- Office premises / Business premises<br>1 bicycle space per 750m$^2$ GFA for employees plus 1 bicycle space per 1000m$^2$ GFA for shoppers – Retail premises. | 1 motorcycle<br>space per 25 car parking spaces | 1 motorcycle<br>space per 25 car parking spaces<br>>1,000m$^2$<br>GFA 0 Large Rigid Vehicle, Articulated Vehicle (Semi-Trailer) * |

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| | 1 car parking space per 60m$^2$ of GFA<br>– Retail premises<br>1 car parking space per 120m$^2$ of GFA<br>- Office premises / Business premises<br>***Note 1***: Where there is an inconsistency between the parking rates specified for uses within the "Business premises" and "Retail premises" groups, the specific parking rates shall prevail except in Zones E2 Commercial Centre and MU1 Mixed Use in Wollongong city centre. For example, the specific parking rate for Medical Centre is 4/consulting room plus 1/3 employees. This rate would prevail over the general Business Premises rate of 1/40m$^2$, except if the development is located in Zones E2 or MU1 in Wollongong City Centre. | | | |
| Specialised Retail Premises | City wide:<br>1 car parking space per 30m$^2$ GFA (<500m$^2$) or 2 car parking spaces per 100m$^2$ (500-3000m2) or 2 car parking spaces per 150m$^2$ (>3000m$^2$) | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car spaces | Large Rigid Vehicle – Articulated Vehicle (Semi-Trailer) * |
| Vehicle sales or hire premises | City wide:<br>0.75 car parking spaces per 100m$^2$ GFA plus 3 car parking spaces per work bay where servicing is undertaken | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Articulated Vehicle (Semi-Trailer) |
| Car tyre fitting centres | City wide:<br>3 car parking spaces per work bay | 1 bicycle space | 1 motorcycle space per 3 work bays | Large Rigid Vehicle |
| Food and drink premises<br>• Restaurant | City wide:<br>1 car parking space per 25m$^2$ GFA<br>(excluding specific premise types described below) | Residents/Employees<br>1 bicycle space per 200m$^2$ GFA<br>Customers/Visitors<br>2 bicycle spaces + 1 per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |
| | City wide:<br>1 car parking space per 4 employees, plus 1 car parking | Residents/Employees<br>1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| | space per 6m$^2$ or 1 car parking space per 4 seats whichever is the greater<br>Note: For change of use applications in Town Centres (as defined in Chapter B4 Development in Business Zones), the provision of additional parking will not be required | Customers/Visitors<br>2 bicycle spaces + 1 per 200m$^2$ GFA | | |
| • Take-away food premise | City wide:<br>1 car parking space per 25m$^2$ GFA<br>**Note**: Drive through facility.<br>An exclusive area for queuing of cars for a drive-through facility should be considered to avoid unreasonably disrupting car parking operations or extending onto the street. A range of five to 12 car lengths from pick-up point may be considered dependent on turnover and four car lengths from ordering point may be considered as a guide, as per TfNSW's Guide to Transport Impact Assessment | 1 space per 100m2 GFA (Class 2) for employees<br>1 space per 50m2 GFA (Class 3) for visitors | 1 motorcycle space per 25 car parking spaces | <500m² GFA<br>- Small Rigid Vehicle<br>>500m² or drive through facility – Large Rigid Vehicle (Semi- Trailer) * |
| • Pub | Refer to TfNSW's Guide to Transport Impact Assessment to show that parking satisfies peak maximum demand with an analysis of non-car mode share.<br>Comparisons should be drawn with regard to similar developments | Residents/Employees<br>1 per 100m$^2$ GFA<br>Customers/Visitors<br>1 per 100m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | <500m² GFA - Small Rigid Vehicle<br>>500m² or drive through facility – Large Rigid Vehicle (Semi- Trailer) * |
| • Artisan Food and Drink | A "Car Parking and Access Checklist" available on Council's website needs to be carried out to demonstrate that there will be no impacts on adjacent businesses as outlined in Section 3.4. | | | Large Rigid Vehicle |
| Neighbourhood shop | City wide:<br>These facilities are intended to provide walkable access. No parking requirements for vehicular parking. | 1 bicycle space per 25m$^2$ GFA | NA | Small Rigid Vehicle |
| Kiosk | City wide:<br>1 car parking space per 25m$^2$ GFA | 1 bicycle space per 25m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| Function centre | City wide:<br>1 car parking space per 2 employees plus 1 car parking space per 5m$^2$ | 1 bicycle space per 10 stalls | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |
| Medical centre / Health consulting room | City wide:<br>4 car parking spaces per consulting room plus 1 car parking space per 3 employees | Employees<br>1 per 5 practitioners / professionals<br>Customers/Visitors<br>1 per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |
| Hotel or motel accommodation | City wide:<br>1 car parking space per 2 employees plus 1 car parking space per unit / apartment.<br>If a restaurant / function room is included in the hotel / motel which is available to the general public, then an additional 15 car parking spaces per 100m$^2$ GFA of the restaurant / function room shall be included<br>Wollongong City Centre:<br>1 car parking space per 4 employees plus 1 car parking space per motel unit or<br>0.5 car parking space per hotel unit / apartment | Residents/Employees<br>1 per 4 employees<br>Customers/Visitors<br>1 per 20 rooms | 1 motorcycle space per 25 car parking spaces | >15 units/ apartments – Large Rigid Vehicle |
| Registered Club | Refer to TfNSW's Guide to Transport Impact Assessment to show parking satisfies peak maximum demand | Residents/Employees<br>1 per 100m$^2$ GFA<br>Customers/Visitors<br>1 per 100m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | <500m² GFA<br>– Small Rigid Vehicle<br>>500m² GFA<br>Large Rigid Vehicle, Articulated Vehicle (Semi-Trailer) * |
| Funeral home / Funeral chapel | City wide:<br>1 car parking space per 4 seats plus 1 car parking space per funeral service area | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |
| Restricted premises | City wide:<br>1 car parking space per 40m$^2$ | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle |
| Service station / convenience store / fast food restaurant | City wide:<br>1 car parking space per 2 employees plus 3 car parking space per work bay plus 1 car parking space per 25m$^2$ of | 2 bicycle spaces | 1 motorcycle space per 10 car parking spaces | Articulated Vehicle (Semi-Trailer) |

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| | retail convenience store plus 10 car parking spaces for any ancillary fast food restaurant component | | | |
| Timber and building supplies | City wide:<br>1 car parking space per 45m$^2$ GFA | 1 bicycle space per 200m$^2$ GFA of factory building | 1 motorcycle space per 25 car parking spaces | Large Rigid Vehicle –<br>Articulated Vehicle (Semi- Trailer) * |
| Veterinary hospital | City wide:<br>3 car parking spaces per consulting room plus a loading / unloading area to cater for horse trailers etc (If the veterinary hospital involves care for larger animals) | Residents/Employees<br>1 per 5 practitioners /professionals<br>Customers/Visitors<br>1 per 200m$^2$ GFA | NA | Small Rigid Vehicle plus trailer parking / manoeuvring |
| Industry | City wide:<br>1 car parking space per 75m$^2$ GFA; or<br>1 car parking space per 150m$^2$ GFA for buildings greater than 5,000m$^2$ where the facility is purpose built for a particular business and where it can demonstrate that employee car parking is satisfactorily catered for | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space 25 car parking spaces | Large Rigid Vehicle – Articulated Vehicle (Semi-Trailer) * |
| Light Industrial Retail Outlets | City wide:<br>1 car parking space per 25m$^2$ GFA of gross floor area | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car spaces or part thereof | <500m² GFA<br>– Small Rigid Vehicle<br>>500m² GFA - Large Rigid Vehicle |
| Landscape and garden supplies | City wide:<br>1 car parking space per 30m$^2$ GFA of any building used for retailing plus 1 car parking space per 45m$^2$ for outdoor areas used for retail display purposes plus 1 car parking space per 200m$^2$ for areas used exclusively for propagation or storage, whether indoor or outdoor. | NA | 1 motorcycle space per 25 car parking spaces | Large Rigid Vehicle – Articulated Vehicle (Semi-Trailer) * |
| Retail Plant Nursery | City wide:<br>10 car parking spaces plus 1 additional car parking space per 100m$^2$ of building GFA or land area used for the retailing of plants | NA | 1 motorcycle space per 25 car parking spaces | Large Rigid Vehicle – Articulated Vehicle (Semi-Trailer) * |

| Land Use | Car Parking Requirements | Bicycling Parking Requirements | Motorcycle Parking Requirements | Delivery/Service Truck Requirements |
|---|---|---|---|---|
| Vehicle body repair shop / Vehicle repair station | City wide:<br>1 car parking space per 2 employees plus 3 car parking spaces per work bay | 1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Large Rigid Vehicle |
| Manufactured home estate | City wide:<br>Car Parking as per Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005 | NA | NA | Large Rigid Vehicle |
| Caravan park | City wide:<br>1 car parking space per site<br>**Note**: In accordance with Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005 | NA | NA | Large Rigid Vehicle<br>(Waste collection trucks and Coaches) |
| Educational establishment | 1 car parking space per employee plus 1 car parking space per 10 Year 12 students | 1 per 10 employees and 1 per 10 students | 1 motorcycle space per 25 car parking spaces | Large Rigid Vehicle |
| Child Care Centres | 1 space for each employee present at any one time plus<br>1 visitor space per 6 children plus<br>1 space as per Off Street Parking for People with Disabilities plus<br>2 large spaces (3.2m x 5.5m) for parents requiring the use of strollers | Residents/Employees<br>1 per 10 employees<br>Customers/Visitors<br>1 bicycle space per 200m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Vehicle - Medium Rigid Vehicle |
| Place of Public Worship | 1 space per 20m² GFA, or 1 space per 10 seats, whichever is the greater | Greater of 1 per 15 seats or 1 per 40m$^2$ GFA | 1 motorcycle space per 25 car parking spaces | Small Rigid Truck |

**Note**: The determination as to the standard truck size for a particular development will be dependent upon the nature and scale of the development and will be determined by Council at the pre-lodgement meeting stage.

## 11. SCHEDULE 2 – CAR PARKING REQUIREMENTS FOR PEOPLE WITH A DISABILITY

| Building Code of Australia Classification | Car Parking Requirements (Table D4/D6 of the NCC) |
|---|---|
| Class 1b and 3 buildings<br>For a boarding-house, guest house, hostel, lodging house, backpackers' accommodation or the residential part of a hotel or motel<br>For a residential part of a school, accommodation for the aged, disabled or children, residential part of a health-care building which accommodates members of staff or the residential part of a detention centre | Calculated by multiplying the total number of car parking spaces by the percentage of: -<br>(i) accessible sole-occupancy units to the total number of sole-occupancy units; or<br>(ii) accessible bedrooms to the total number of bedrooms.<br>The calculated number shall be taken to the next whole figure.<br>1 accessible space for every 100 carparking spaces or part thereof. |
| Class 5,7,8 and 9c buildings | 1 accessible space for every 100 carparking spaces or part thereof. |
| Class 6 buildings<br>(i) Up to 1000 carparking spaces, and<br>(ii) For each additional 100 carparking spaces or part thereof in excess of 1000 car parking spaces | 1 accessible space for every 50 carparking spaces or part thereof, and<br>1 accessible space |
| Class 9a buildings<br>For a hospital (non-outpatient area)<br>For a hospital (outpatient area)<br>(i) Up to 1000 carparking spaces; and<br>(ii) For each additional 100 carparking spaces or part thereof in excess of 1000 carparking spaces.<br>For a nursing home<br>For a clinic or day surgery not forming part of a hospital | 1 accessible space for every 100 carparking spaces or part thereof.<br>1 accessible space for every 50 carparking spaces or part thereof, and<br>1 accessible space.<br>1 accessible space for every 100 carparking spaces or part thereof.<br>1 accessible space for every 50 carparking spaces or part thereof. |
| Class 9b buildings<br>For a school<br>For other assembly buildings<br>(i) With up to 1000 carparking spaces; and<br>(ii) for each additional 100 carparking spaces or part thereof in excess of 1000 carparking spaces | 1 accessible space for every 100 carparking spaces or part thereof.<br>1 accessible space for every 50 carparking spaces or part thereof, and.<br>1 accessible parking space |