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DRAFT Development Control Plan
Elevation at Greystanes Estate

Western Sydney Employment Area
Northern Employment Lands

Clunies Ross Street, Pemulwuy

24 July 2020

Contact

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Cover image: **the Site (Source: Aliro Management)**

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2	4 June 2020	RG/KW	MW	4 June 2020	Draft
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1 Introduction

1.1 Land to which this DCP applies

This Development Control Plan (DCP) applies to all development on the land shown in Figure 1 which is legally described as Lot 10 in DP1022044, Lot 107 in DP 1028208, Lot 63 in DP 752051, Lot 216 in DP 1030744 and Lot 601 in DP 1047403 (the Site).

Figure 1: The Site where this DCP applies (Base Source: Google)

The Site comprises an area of approximately 18.6 ha and is located approximately 29.4 kilometres (km) west of the Sydney central business district and approximately 8.7 km west of Parramatta.

The Site forms part of the 90 ha Greystanes Northern Employment Lands (NEL) in the Western Sydney Employment Area, under the *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (WSEA SEPP). The Site is located in the Blacktown and Cumberland local government areas (LGA) and is zoned IN1 General Industrial under the WSEA SEPP (see Figure 2).

Access to the Site is available via Clunies Ross Street and from the Prospect Highway via Foundation Place. The Site is strategically located close to major transport corridors including the Prospect Highway, M4 Motorway and Great Western Highway (Figure 1), all of which are state classified roads.

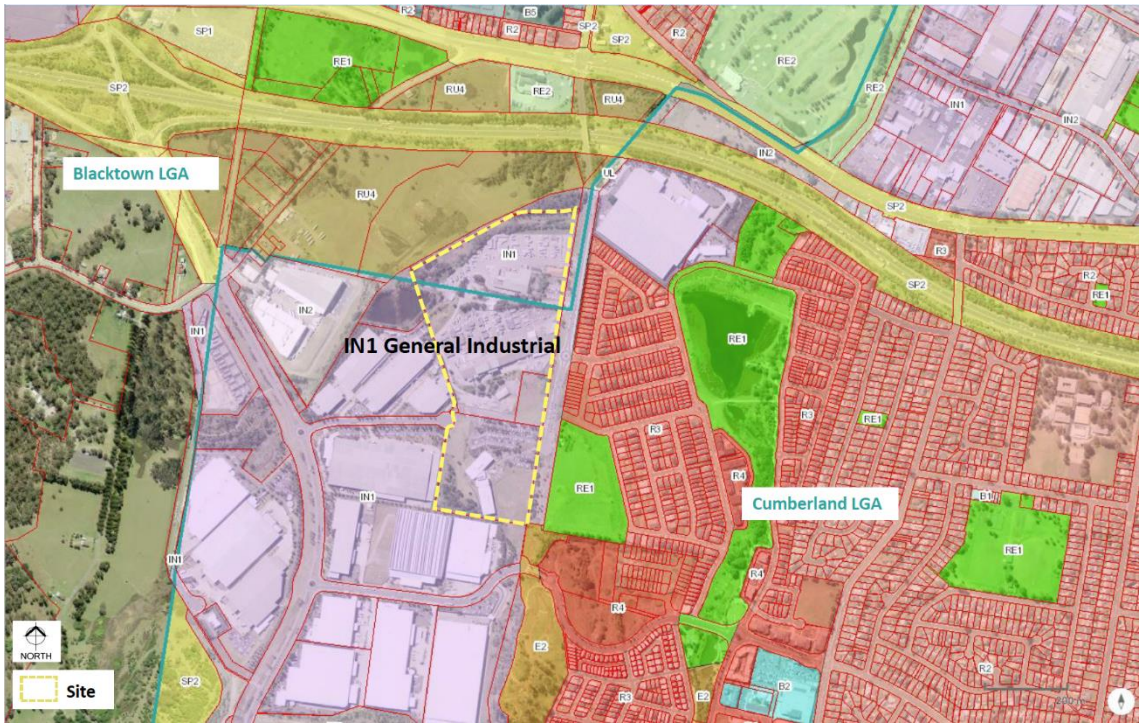

Figure 2: The Site and land use zones (NSW Planning Portal)

The area around the site has been subject to quarrying activities for nearly a century with the subject site used for quarrying related industries for approximately 50 years. The site has previously been cleared for the construction and operation of the existing facilities and therefore has minimal vegetation, with patches of vegetation limited to the northern boundary and southern portions of the site.

The site slopes moderately from the south near Prospect Hill to the north towards Girraween Creek, with an approximate 56 metre fall over 600 metres (5% slope on average). Parts of the existing site have been levelled with retaining walls to provide level surfaces.

1.2 The Proposed Development

The proposed development comprises the construction of seven industrial warehousing buildings on a terraced landform with associated office space, car parking, truck circulation areas and truck loading/unloading areas (see Figure 3).

The proposed development will facilitate a range of potential industrial uses consistent with the applicable land use zone under the WSEA SEPP, including, (but not limited to) warehouse or distribution centres, depots, food and drink premises, freight transport facilities, hardware and building supplies, industrial retail outlets, industrial training facilities, industries, transport depots and truck depots.

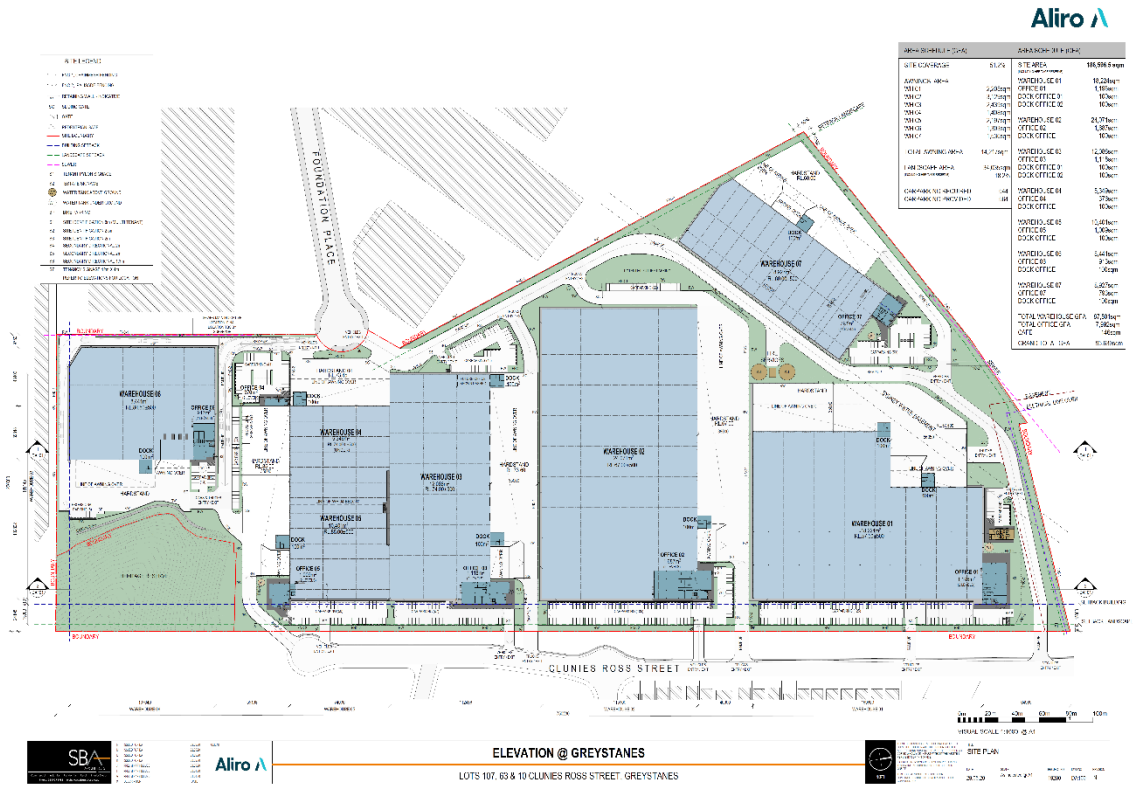

Figure 3: Proposed development layout (ISPT, 2020)

1.3 Relationship to other Plans

In February 1999, *State Environmental Planning Policy No. 59 - Central Western Sydney Economic and Employment Area* (SEPP 59) was gazetted. It applied to a number of landholdings in Western Sydney including the Site. The SEPP rezoned the Greystanes Estate for urban development including employment generating and residential land uses and establishes the planning framework for the development of the land.

On 21 August 2009, the WSEA SEPP was gazetted. The control of the Employment Lands of SEPP 59 was transferred to the WSEA SEPP. The land that is the subject of this section of the DCP is controlled by the WSEA SEPP.

Part 4 (Development Control Plans) of the WSEA SEPP requires that prior to the lodgement of a development application for a site, the owner or Council needs to prepare a site specific Development Control Plan. This DCP must be prepared pursuant to section 80 (11) of the EP&A Act 1979 and consistent with the issues of consideration in Schedule 4 of the WSEA SEPP (Requirements relating to preparation and content of development control plans). The DCP is determined (approved) by the Director-General of the Department of Planning.

This Draft DCP provides guidance on specific development matters pertinent to the land defined in Section 1.1 above and is consistent with Schedule 4 of the WSEA SEPP. Infrastructure services are not addressed by this DCP, having been provided prior to the adoption of this control.

The land that is the subject of this DCP was also included within the *Greystanes Estate – Employment Lands Precinct Plan* prepared by the Department of Urban Affairs and Planning in 2001 (2001 Precinct Plan). The 2001 Precinct Plan was prepared to provide guidance for development within the Precinct to ensure development met the objectives of SEPP 59 and has been used to guide the preparation of this DCP.

The majority of the Site falls within the Cumberland LGA which has also been subject to the controls in Part Q of the *Holroyd Development Control Plan 2013* which applies to the Northern Employment Lands. Part Q of this DCP has informed the preparation of this DCP.

1.4 Objectives of this DCP

O1. To achieve the principles of ESD through:

i) provision of a range of new employment opportunities;
ii) efficient re-use of degraded land;
iii) providing the opportunity for employment to a local workforce and the consequent benefits to the community such as reduced travel time, promotion of healthy lifestyles, reduced expenditure for transport;
iv) energy efficient design of employment developments;
v) accessibility to public transport networks;
vi) implementation of sustainable practices, where practicable e.g. water efficiency and conservation measures to reduce water consumption, maintenance or improvement of water quality through a catchment management approach to the Site and the control and minimisation of air pollutant emissions;
vii) promoting the use of appropriate and renewable source materials;
viii) protecting vegetation and habitat adjacent to the Site and landscaping with native species where practicable; and
ix) recognising and integrating significant cultural and archaeological features/aspects.

O2. To offer new job opportunities in Western Sydney. The accessibility of the Site to a regional road and public transport network will assist in attracting new employment generating industries.

2 Building and Siting Requirements

2.1 Lot Sizes and Site Cover

Objectives

O1. To achieve a quality industrial park setting and ensure adequate provision is made for landscaping, parking and manoeuvring areas.
O2. To create site layouts which consider the opportunities and constraints of the Site.

Development Controls

C1. The development layout should:
- seek to maximise solar access to all parts of the development;
- encourage passive solar design; and
- protect site attributes such as views, existing vegetation and other environmental features.

C2. Maximum site coverage is 60%. Local services including commercial, retail, community and recreational uses are excluded from this provision given the different design characteristics of these uses.

"Site area" is defined as the whole of the land to which this DCP relates and includes areas set aside for open space, drainage and other services.

"Site coverage" is defined as the area of a site covered by buildings.

C4. In the layout of the Site, design the buildings and landscaping to provide direct, convenient and safe access to the street for the pedestrians.
C5. Make adequate allowance for manoeuvring and turning of heavy vehicles on site. In accordance with the Transport for NSW Policies, Guidelines and Procedures for Traffic Generating Developments, apply the design standard for "large rigid truck".
C6. Ensure that the width of an industrial allotment at the building line is equal to or greater than 24 m and the average depth is equal to or greater than 45 m.

2.2 Siting

Objectives

O1. To achieve attractive streetscapes.
O2. To provide a quality setting and to allow for landscaped curtilages between buildings and front property boundaries.
O3. To create setbacks that allow for landscaping and visual amenity.
O4. To provide solar access to sites and adjacent development.

Development Controls

C1. Buildings are to be set back 20 metres from the property boundary along Clunies Ross Street. The first 3 metres is to be landscaped in accordance with the Landscape section below.
C2. The setback controls may be varied where:
- a predominant street building line exists;
- the current setback of buildings is staggered and continuity in street building line is generally maintained;

- public domain improvements or environmental benefits such as solar access, protection of vegetation are achieved;
- the building is located on a corner site and a lesser setback is consistent with streetscape objectives; or
- an architectural element (such as an office component) provides articulation to the built form.

C5. Site and design buildings to allow for casual surveillance of building entrances and the street.

C6. Site buildings to allow for adequate lines of sight to building entrances, the street and carpark areas for pedestrians, cyclists and vehicles.

C7. Locate offices to address and activate the street/s. The warehouse/factory functions as well as car parking, manoeuvring areas, loading and unloading facilities are to be located within the Site.

C8. Through layout of the Site, the design of buildings and landscaping, provide direct and safe access to the street for pedestrians.

C9. Site buildings to satisfy maintenance, utility and safety requirements.

C10. Building setbacks are to consider the required bushfire asset protection zones

2.3 Building Heights and Design

Objectives

O1. To ensure buildings do not adversely affect views from the M4, Great Western Highway and Prospect Reservoir environs to Prospect Hill.

O2. To create building forms with appropriate scale and height, taking into consideration site topography.

O3. To encourage a high architectural standard of contemporary design and innovation.

O4. To achieve a good quality development which complements the streetscape.

O5. To ensure building heights do not adversely impact on the amenity of adjacent residential areas.

O6. To store goods, plant, equipment and other material resulting from the development within a building, or to suitably screen them from view from residential buildings and associated land.

O7. To ensure buildings are future-proofed for technical advances and innovation.

Development Controls

C1. Ensure that the height and scale of buildings in the Site are sensitive to views from the environs of Prospect Reservoir and the M4 Motorway.

C2. Ensure the architectural treatment of building facades is directed by energy efficiency and other environmental design considerations.

C3. Articulate building facades to address all street frontages. Building facades can be articulated using architectural elements which include:

- variable roofs and skyline silhouettes (for example: saw toothed or pitched roofs and innovative skillion curved or 'floating' roof forms);
- varying façade alignments;
- 'breaking-up' facades with windows, changing wall alignments and the use of decorative features and structural features.
- variation in materials, finishes and colours;
- location, style and quantity of windows;
- blade and fin walls;

- cantilevered or overhanging elements;
- verandahs, terraces, sun shading devices;
- colonnades; or
- variation in height.

C4. Architectural style is to contribute to the quality of the Estate, with emphasis on the horizontal lines and planes.

C5. Integrate roof top plant and services into building/roof forms or screened and compatible with the building design. Mobile phone towers are not permitted on tops of buildings unless integrated into the building/roof design.

C6. Articulate building entries so they are easily identifiable.

C7. Locate service areas including waste/recycling areas and external storage areas away from principal frontages and adequately screen from view from any public road.

C8. Locate loading docks, roller shutters and other building openings that detract from the appearance of the building so they are not visible from principal street frontage/s.

2.4 External Materials and Colours

Objectives

O1. To contribute to the visual quality of the Pemulwuy northern employment lands through selection of building materials and colours.

Development Controls

C1. Use materials and colours for buildings and roofs that are subtle (no strong hues), recessive (mid-tone) and non-reflective.

C2. Create varied facades through choice of external materials, including masonry, metal panels, CFC panels, metal sheeting for walls and roofs.

C3. Express one predominant external material. The range of external materials on any individual building should be limited and compatible.

C4. Ensure that dado panels or similar are a minimum height of 2 metres to all external walls.

C5. Pre-colour metal deck roofs in landscape tones.

C6. Use only low maintenance and robust materials.

C7. Minimise variations in colour. Accent colour is acceptable, e.g. for corporate logos and architectural details.

C8. Ensure that external finishes are graffiti resistant.

Note: Indicate details of external materials and colours on the plans accompanying development applications.

2.5 Energy and Water Efficiency

Objectives

O1. To encourage site planning and building design that optimises site conditions to achieve energy efficiency.
O2. To design working environments that minimise energy and water use.
O3. To encourage use of building materials that minimise impact on development.
O4. To use passive and active design initiatives that respect the principles of ecological sustainable development.
O5. To implement sustainable practices, e.g. water efficiency and conservation measures to reduce water consumption, and the use of solar energy for heating appliances.
O6. To encourage Water Sensitive Urban Design Principles (WSUD) for the new development.
O7. To encourage the use of rainwater tanks for outdoor use and toilet flushing in accordance with the requirements of Sydney Water;
O8. To encourage the use of permeable paving, wherever possible, to increase water filtration into the ground.

Development Controls

C1. Ensure all building development (including additions and alterations) complies with the requirements of the Building Code of Australia (BCA), and relevant reports accompany applications for construction.
C2. In designing the orientation, internal layout and design of buildings, minimise energy consumption for heating and cooling. Aspects to consider include:
- light penetration to internal areas;
- natural ventilation;
- passive solar design;
- shading devices to minimise glare;
- solar access to outdoor recreation areas.

C3. Select building materials which, where feasible:
- use renewable resources;
- are energy efficient;
- are low maintenance;
- are recycled or recyclable;
- are non polluting;
- are non-ozone depleting; and
- avoid where possible the use of PVC.

C4. Install rainwater tanks to provide water for flushing toilets and other non-potable uses.
C5. See Section 6.1 below under Stormwater Management for controls for water flow and quality management during and particularly after development, and for Stormwater plans to minimise pollutant loads.

2.6 Safety and Security

Objectives

O1. To promote the feeling of safety.

Development Controls

C1. Design buildings to overlook public and communal streets and other public areas to provide casual surveillance.
C2. Through site planning, buildings, fences, landscaping and other features, clearly define territory and ownership of all public, common, semi-private and private space.
C3. Provide appropriate lighting to all pedestrian paths between public and shared areas, parking areas and building entries, and light building entries to provide a sense of security for both residents and visitors.
C4. Ensure no lighting spills onto or affects the amenity of residential areas.
C5. Use robust materials which are aesthetically pleasing in public or communal spaces.
C6. Ensure pedestrian site access and carparking are:
- clearly defined,
- appropriately lit,
- visible to others and
- provide direct access to buildings from areas likely to be used at night.

C7. Design major pedestrian, cycle and vehicle thoroughfares to:
- minimise opportunities for concealment;
- avoid 'blind' corners;
- maximise casual surveillance; and
- allow 'long distance' sight lines.

C8. Site and design landscape and fencing so they do not present a security risk by screening doors, windows and major paths.
C9. Ensure landscaping maintains view corridors & clear sight lines.

2.7 Landscaping

Objectives

O1. To encourage a high standard of landscaping to enhance the streetscape and amenity of the northern employment lands.
O2. To accommodate outdoor staff areas.
O3. To provide for retention of water for irrigation and drainage purposes.
O4. On sites adjacent to the riparian corridor, to select species to complement the plant species in the corridor.
O5. To suitably treat the interface with the adjacent residential uses.
O6. To soften the impact of built form and car parking areas.
O7. To reintroduce local indigenous species where feasible, especially in drainage areas, open spaces and landscaped areas.

Development Controls

Note that "Landscaping" incorporates vegetation, gardens, outdoor staff recreation areas, natural site features and watercourses, but does not include that part of the Site used for driveways, parking or outdoor storage.

C1. Design the landscape of both hard and soft landscape features to create a quality industrial park setting. Hard landscape features include paving, terracing, retaining walls and kerbing. Soft landscape features refer to vegetation (including grass, shrubs and trees).
C2. Landscaping is to be generally in accordance with the landscape masterplan (see Figure 4).
C3. Design landscaping to visually unify and enhance the overall quality of the estate.
C4. Provide outdoor amenity/recreation facilities for employees within the landscaped areas, to meet the likely needs of the workforce.
C5. Retain existing significant trees, where possible, and incorporate them into the design.
C6. Provide landscaping as both hard and soft areas. However, provide and maintain approximately 15% of the Site as soft landscaped area at ground level. The location of the landscaped areas will be determined at the development application stage having regard to meeting the criteria contained in this section. Landscaping design of both hard and soft landscape features should create a unified setting;
C7. Where feasible, drain hard stand areas to soft landscaping areas to improve on-site infiltration of stormwater.
C8. Provide non-slip finishes to paving.
C9. Design landscaping to complement the buildings on site, the adjoining developments and streetscape, and to be compatible in scale.
C10. Separate landscaped areas from vehicle areas with an effective physical barrier.
C11. Plant local indigenous species with mulched beds to help improve water quality and reduce water consumption.
C12. Plant to highlight pedestrian and vehicular access points and building entries.
C13. Landscape informally to promote parkland quality. Structured treatment may be used to enhance entries, etc.
C14. Landscape carparks to complement the surrounding landscaped areas, soften car parking areas and provide shade for parked cars. Provide landscaping around the perimeter of carpark areas.
C15. Install automatic irrigation systems for all landscaped areas on the developed lots. Design them to meet specific site requirements. Consider minimising water consumption and preventing salinity in the design of landscaping and irrigation systems; prefer irrigation systems that monitor soil moisture conditions.
C16. Install a drip irrigation system to all soft landscaped areas to reduce water use. Connect this system to rainwater storage tanks where possible.
C17. Design landscaping to assist energy conservation in buildings and have regard to microclimatic conditions and shading control.
C18. Design landscaping to encourage safety by ensuring street surveillance is possible, paths are not excessively screened and lighting is provided to pathways and building entries.
C19. Design landscaping and setbacks to create an environment that encourages walking and the pedestrian use of public streets.

Figure 4: Proposed landscape masterplan layout (Habit8, 2020)

2.8 Signage

Objectives

01. To encourage signage that contributes to the aesthetic integrity of the northern estate.
02. To ensure signage does not detract from the visual appearance of the buildings and locality.
03. To provide the opportunity for an approved use to adequately state the nature of the business conducted on the premises;
04. To regulate signage so that it contributes to the identity of the Site;
05. To ensure signage does not compromise the safety of the M4 users;
06. To ensure illuminated signs do not unduly affect the amenity of the surrounding areas or interfere with driver's vision.

Development Controls

C1. Relate advertising, other than real estate signs, to the use occurring on the respective property. i.e.: to serve only to identify the occupants of the premises.
C2. Locate directional and tenancy signage in a convenient point close to the main entry to a development in accordance with the signage strategy master plan (Figure 5).
C3. Locate signs below parapet level.
C4. Moving, blinking or flashing signs are prohibited.
C5. Incorporate signage into the architectural elements of the building of a size, shape and colour that does not detract from the architectural character of the building.

C6. Provide no more than one wall sign per façade with which that occupancy is associated. The sizes and dimensions of such signage shall have regard to existing signage on other units.

C7. Directory boards are to be comprised of not more than one (1) panel per unit. Each panel is:

a) to be uniform in size, colour and dimensions;
b) not to exceed 1 square metres per panel; and
c) to serve only to identify the number of the unit and the name of the respective occupant.

C8. Locate the directory boards on or behind the building line setback adjacent to the entrances to the Site. Directory boards to be located within the building line setback shall be incorporated into the landscaping.

C09. Ensure that signage is easily readable.

C10. Locate and display illuminated signs in a manner that does not cause glare, distract drivers or adversely impact on the amenity of nearby residences.

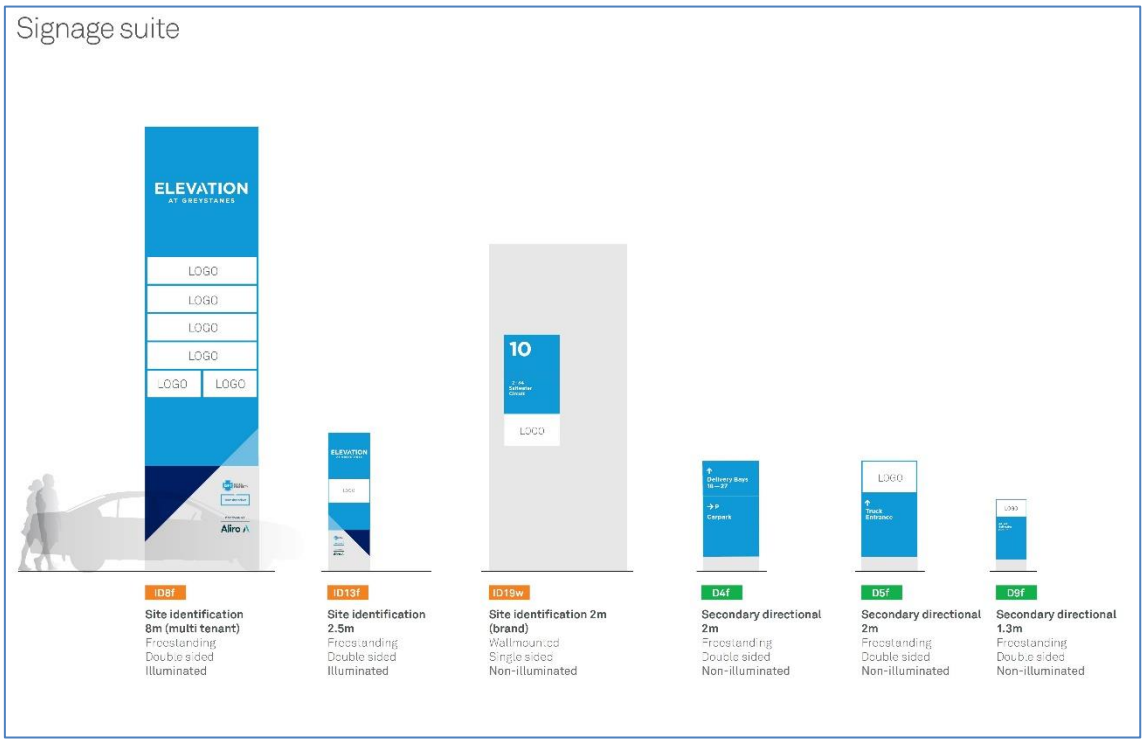

Figure 5: Proposed signage strategy (diadem, 2020)

2.9 Fencing

Objectives

O1. To allow for security in the Site.
O2. To ensure that the design of fencing contributes to the streetscape and amenity of the northern employment lands.
O3. To provide for the amenity of adjacent residential land.

Development Controls

C1. Where fencing is required for safety or security reasons to be forward of the building line, ensure that it is of a standard and style that does not detract from the landscaping and main building facades. Pre-painted solid metal fencing will generally not be adopted.
C2. Locate fencing so it does not impede sight lines for drivers.
C3. Ensure that fencing complements all landscaping to minimise visual impacts to the adjacent residential areas whilst providing site security.
C4. Utilise graffiti-resistant materials and finishes on fencing.

2.10 Exempt and Complying Development

For See Part 5 (General Commercial and Industrial Code) of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. This SEPP controls certain Commercial and Industrial development with respect to:

- internal alteration to a building that is used as bulky goods premises, commercial premises, premises for light industry or a warehouse or distribution centre; or
- Change of use of Commercial and Industrial premises;
- Mechanical ventilation systems;
- Shop front and awning alterations;
- Skylights and roof windows.

Part 1 of the SEPP defines the general requirements for exempt and complying development for Commercial and Industrial purposes.

Part 2 controls general exemptions such as Access ramps, Bollards, Demolition, Minor building alterations, Privacy screens, Scaffolding, hoardings and temporary construction site fences, Replacement of identification signs, Temporary builders' structures, and Water features and ponds.

3 Transport

3.1 Access and Circulation

Objectives

O1. To ensure safe access movements to/from the Pemulwuy north employment area.
O2. To provide access through the employment area to improve the regional road network.
O3. To provide access to the employment area for employment land uses which minimise impacts on the surrounding local community.
O4. To construct roads in such a way to accommodate the anticipated traffic volumes and in particular heavy vehicles. For example, to ensure that road access facilities are commensurate with the scale and extent of the proposed development and compatible with the surrounding traffic network.
O5. To minimise potential conflict between street traffic and pedestrians caused by the vehicular movements to and from the Site.
O6. To minimise potential conflict between service vehicle (heavy vehicle) with smaller vehicle.

Development Controls

C1. Ensure that intersections into the Site are designed with sound traffic planning principles and relevant guidelines including but not limited to:
    a) Roads and Maritime Services's *Road Design Guide*;
    b) Roads and Maritime Services's *Guide to Traffic Generating Development* (1993);
    c) *AUSTROAD - Guide to Traffic Engineering Practice*; and
    d) while ensuring that walking and cycling are encouraged and not impeded.
C2. Ensure site access allows vehicles to enter and exit in a forward direction.
C3. Ensure that emergency access for fire appliances is provided.
C4. Ensure driveway width, configuration and location shall accord with 'Roads and Maritime Services's' *Guide to Traffic Generating Development* (1993) and Australian Standard AS 2890.1: 2004.
C5. Design internal circulation road and heavy vehicle manoeuvring areas to comply with the requirements of the following:
    - AS2890.1-2004;
    - AS2890.2-2002; and
    - NSWB Guidelines for Emergency Vehicle Access.

3.2 Parking

Objectives

O1. To encourage a reduction in the level of vehicular traffic by reducing parking requirements.
O2. To ensure adequate parking for various land uses and sustain the market viability of the development.
O3. To ensure that all car parking demands generated by any development are accommodated on the development site.
O4. To design parking supply in accordance with the Site's urban design principles. Thus, to:
    a) ensure that the provision of off street car parking facilities does not detract from the visual character, particularly the streetscape of an area; and
    b) ensure that the location of driveways, parking and servicing areas are efficient, safe and suitably landscaped.
O5. To implement parking strategies which minimise adverse impacts on local communities and wider land uses. For example, to minimise conflict between service vehicles (heavy vehicles) and smaller vehicles within the Site.

Development Controls

C1. Design off-street parking to be consistent with the design principles and dimensional requirements of Australian Standards AS2890.1: 2004. Include in the design, compliance with driveway dimensions and location, sight distances, and dimensions for circulation aisles and grade / ramps.
C2. Design off-street parking to ensure that vehicles are able to efficiently access parking spaces within minimal manoeuvring.
C3. Suitably landscape off-street parking areas to minimise visual dominance.
C4. Parking is to be supplied in accordance with the following rates:
    a) Warehouse: 1 per 300 square metres (sqm)
    b) Office: 1 per 40 sqm
    c) Café: 1 per 10 sqm
C5. These guidelines as maximum provisions rather than minimum provisions, as a means of encouraging public transport use (dependent upon provision of public transport).
C6. Minimise off-street parking supply, having regard to:
    a) access to public transport (located within 400 metres);
    b) likely employee usage of pedestrian and cycleway links to the employment precinct;
    d) land use synergies with surrounding land uses;
    e) complimentary/shared use of parking facilities.

3.3 Service Areas

Objectives

O1. To provide adequate access for heavy vehicles.
O2. To design road networks to minimise freight and heavy vehicle movements through the employment zones.
O3. To create separation between service areas (loading and unloading docks) and parking in order to avoid traffic congestion;
O4. To ensure that service areas are located and designed to facilitate convenient and safe usage.

Development Controls

C1. Position loading/unloading facilities so they:
  a) do not interfere with visitor and employee parking spaces;
  b) minimise any potential noise impacts; and
  c) avoid delivery vehicles standing on any public roads, footways, laneways or service roads.
C2. Provide adequate on-site manoeuvring to enable all vehicles to enter and leave the Site in a forward direction.
C3. Design access and circulation design within developments to comply with requirements specified by Australian Standards AS2890.2 2002. This will allow heavy vehicles to efficiently and safely access sites from the road network and internal facilities such as loading docks and courier type drop off zones.
C4. Design all roads to be wide enough to allow passage of regular service vehicles and emergency vehicles.

4 Heritage

4.1 Archaeology

Objectives

O1. To protect site locations.
O2. To reflect Aboriginal occupation and history.

Development Controls

C1. Take care when disturbing this area, and if archaeological material is observed during or after clearing, work should cease immediately and the Aboriginal community consulted and advice sought from DPIE.
C2. Do not make site locations and descriptions publicly available.
C3. Provide to developers and general maintenance staff only general knowledge of Aboriginal sites and their legal protection.
C4. Consult the Aboriginal community prior to and during clearing and preliminary ground work to collect artefacts if any, from areas to be developed.
C5. Do not erect signs which draw attention to the archaeological sites, so as to prevent disturbance and defacement of Aboriginal/archaeological sites.

4.2 European Cultural Heritage

Objectives

O1. To protect the integrity of the Prospect Hill State Heritage Registered Area.
O2. To utilise the history of the Site as a theme in its redevelopment.

Development Controls

C1. Maintain the prominence of Prospect Hill as a significant remnant geologic and topographic element. Site and design development so that views of the ridgeline are maintained, where possible.
C2. Maintain the views from Prospect Hill towards the Blue Mountains and St. Bartholomews, Prospect, where possible.

5 Biodiversity

Objectives

O1. To maintain and enhance the existing level of biodiversity during and after development.
O2. To rehabilitate and regenerate native vegetation.
O3. To protect significant trees where possible.
O4. To reintroduce local indigenous species where feasible, especially in drainage areas, open spaces and landscaped areas.
O5. To create fauna movement corridors within the Site and to external ecological resources (where practicable allowing for other site uses).
O6. To reduce water and fertiliser demand.
O7. To protect threatened species where possible.
O8. To manage weeds.
O9. To plan and manage the Site to minimise hazards and manage impacts from bushfire.
O11. To control and minimise impacts from sediment disturbance and erosion.
O12. To manage feral & domestic animals to minimise impacts on native flora and fauna.
O13. To protect water quality and aquatic habitat.
O14. To involve the community.

Development Controls

C1. Use locally indigenous plant species, including threatened and regionally significant species in drainage areas, streetscapes, open spaces and landscaped areas. This will not only enhance biodiversity but will reduce water and fertiliser demand.
C2. Collect and propagate seeds of locally indigenous species prior to development. Use these, hardened on site, in revegetating the open space corridors.
C3. Retain and maintain hollow-bearing trees on site for their fauna habitat value wherever possible.
C4. Incorporate in the design of the Site sufficient space to allow for tree establishment, where proposed. This includes the provision for the development of deep structural roots.
C5. Investigate the use of native grasses in service / open space corridors rather than kikuyu, couch or other conventional non-native grasses.
C6. Remove and maintain all weeds, including any non indigenous native species.
C7. Plant vegetation to facilitate fauna movement through the other open space corridors and street trees.
C8. Provide vegetation which will facilitate movement through the Site of non ground dwelling fauna as well as providing additional foraging habitat.

Fire Management Plan

C9. Prepare a Fire Management Plan for the protection of life and property within the Site. The Fire Management Plan should also identify suitable fire regimes for the protection and maintenance of biodiversity.
C10. Identify appropriate fire management regimes for vegetation management.
C11. Provide external hydrants for bushfire operations.
C12. Plant fire retardant species within the landscape areas.
C13. Provide suitable width for internal roads for access by fire appliances.

6 Environmental Management

6.1 Stormwater Management During Construction

Objectives

O1. To prevent sediment polluting creeks during construction of the development.

Development Controls

C1. Prior to construction a sediment and erosion control strategy will be developed in accordance with the *Managing Urban Stormwater: Soils and Construction* (2004) published by the Department of Housing.
C2. Ensure appropriate sediment and erosion controls are implemented on site
C3. Limit earthworks and disturbance of stable rehabilitated landforms.
C4. Divert clean run-off from upstream areas around disturbed areas.
C5. Stabilise and vegetate areas immediately following the completion of works.
C6. Provide temporary sediment basins, fences, catch drains, check dams and other structures to collect and treat run-off from disturbed areas.
C7. Monitor discharges from sediment basins and flocculation as required to limit TSS concentrations in water discharged from the basins to 50 mg/L.
C8. Provide vegetated buffer strips around all water bodies and drainage channels.
C9. Temporarily stabilise stockpiles and disturbed areas exposed for more than 15 days.
C10. Restrict vehicle access to designated entry and exits.

6.2 Stormwater Management After Development

Objectives

O1. Provide a development consistent with the principles of total watercycle management but recognising potential salinity problems.
O2. Limit stream velocities to prevent erosion and scour of local waterways.
O3. Reduce pollutant loadings to maintain downstream water quality.
O4. Prevent the contamination of surface water or groundwater by stormwater run-off.
O5. Ensure reduced demand for imported mains water by water conservation measures in accordance with the principles of Water Sensitive Urban Design.
O6. Protect the downstream aquatic ecosystems and riparian vegetation of any creek corridors.
O7. Ensure that additional stormwater runoff generated by the development does not adversely affect peak flows, velocities and water levels downstream of the Site in the full range of flood up to 1 in 100 year storm event.
O8. Meet catchment wide water quality objectives of EPA's Water Quality and River Flow Objectives for Sydney Harbour and Parramatta River.
O9. Ensure that additional stormwater runoff generated by the development does not adversely affect peak flows, velocities and water levels downstream of the Site in the full range of floods.

Development Controls

C1. The treatment objectives for the Upper Parramatta River catchments are listed below in Table 1.

C2. Ensure stormwater management systems are incorporated in the initial stages of design and infrastructure provided prior to the development of individual sites.

C3. Design on-site stormwater management measures to the water quality objectives of
   a) the *Water Cycle Management Strategy - Prospect Logistics Estate* (Costin Roe 2020) and
   b) Blacktown City Council and Cumberland Council

C4. Where feasible, incorporate in the proposed stormwater management measures, natural treatment mechanisms and features.

C5. Where practical, reuse stormwater collected on developed lots. This can include rainwater tanks. This should be encouraged to minimise pollutant exports and reduce the hydrologic impacts associated with the development.

C6. Design stormwater systems including on-site storage so that there are no linkages between surface and groundwaters to minimise the risk of contamination of surface waters by potentially saline groundwaters.

C7. Use the results of the monitoring program required by the Soil Erosion section of this plan to inform surface water management practices as required.

Element	Target	Reference
Water Quantity	Ensure that additional stormwater runoff generated by the development does not adversely affect peak flows, velocities and water levels downstream of the site in the full range of flood up to 1 in 100year storm event.	Pemulwuy Industrial Controls Holroyd DCP Part Q
Water Quality	<u>*Cumberland Council LGA/ Northern Employment Lands*</u> Load-based pollution reduction targets based on an untreated urbanised catchment: Gross Pollutants >5mm 70% Coarse Sediment 80% Fine Sediments 0 % Total Phosphorus 0 % Total Nitrogen 0 % Total Hydrocarbons 90% <u>*Blacktown Council LGA Land*</u> Load-based pollution reduction targets based on an untreated urbanised catchment: Gross Pollutants 90% Total Suspended Solids 85% Total Phosphorus 65% Total Nitrogen 45% Total Hydrocarbons 90%	Source Controls - Section 7.3 and Table 1 of *Pemulwuy Industrial Controls Holroyd DCP Part Q* Blacktown City Council DCP Part J
Flooding	Buildings and road set 500mm above 1% AEP.	Pemulway Industrial Controls Holroyd DCP Part Q Blacktown City Council

	No affectation to upstream downstream or adjoining properties as a result of development	NSW Floodplain Development Manual. Pemulwuy Industrial Controls Holroyd DCP Part Q Blacktown City Council DCP Part J
Water Supply	Ensure reduced demand for imported mains water by water conservation measures and re-use of stormwater in accordance with the principles of Water Sensitive Urban Design Reduce non-potable water supply demands by 80%.	Pemulwuy Industrial Controls Holroyd DCP Part Q Blacktown City Council
Erosion and Sediment Control	Appropriate erosion and sedimentation control measures must be described in the environmental assessment for all stages of construction to mitigate potential impacts downstream waters in accordance with Landcom Blue Book.	Landcom Blue Book Penrith City Council DPI
Waterway and Stream Health	Maintain pre and post development flows within Girraween (Greystanes) Creek.	Pemulwuy Industrial Controls Holroyd DCP Part Q

Table 1: Water Cycle Management Objectives

C11. Design and maintain development so that downstream flows are not adversely affected, based on comparison of peak flows, velocities and water levels in the 2 year ARI, 100 year ARI and probable maximum floods at critical points further downstream

C13. Should it prove impractical or impossible, for whatever reason, to modify the detention basin to meet the above-stated objective that downstream off-site flows are not adversely affected, a flood retarding basin should be provided within the Site to satisfy that objective.

C14. During development and construction, remove at regular intervals any sediment from the Site deposited off site in the flood basin or the downstream creek channel, and again prior to completion of construction.

6.3 Stormwater Plans

Objectives

O1. To employ source controls to minimise the pollutant loads discharged from the Site.

O2. Apply conveyance controls to the local and trunk drainage systems to minimise the pollutant load discharged from the Site.

O3. Use discharge controls immediately prior to discharge from the Site to Greystanes Creek, to ensure that water quality of the downstream creek is protected.

Development Controls

C1. Stormwater Design Drawings are to be produced which achieve the management objectives included in Table 1 and general strategy as set out in the *Water Cycle Management Strategy - Prospect Logistics Estate* (Costin Roe 2020) noting specific catchment requirements and associated regional detention basin and wetlands which manage water quantity and tertiary water quality for the development

6.4 Earthworks Procedures

Objectives

O1. To ensure that any fill utilised throughout the Site is clean and complies with relevant standards.

Development Controls

C1. Upon the validation and approval of fill foundation and fill material, place and compact material generally in accordance with:
   a) all material <300 mm in size;
   b) compaction up to 98% standard compaction to building and road lots;
   c) moisture contact 60-90% of optimum;
   d) compaction to 95% standard in landscaped areas. Rip landscaped areas to a depth of 300/450 mm and mix in organic material to improve soil quality as required.

C2. Final verification of placement of clean fill material will be undertaken through the process of design/construction Quality Assurance Audits.

C3. All cut and fill works shall be in accordance with Geotechnical Design Advice and Geotechnical Specifications, and where appropriate relevant Council guidelines.

C4. Cut and fill will generally be in accordance with *Civil Engineering Report Prospect Logistics Estate* (Costin Roe 2020) for the proposed development.

C5. All land filled areas must comprise clean material free from contamination. Imported material shall be certified "Virgin Excavated Natural Material (VENM)".

C6. Land filled areas must be suitably compacted and stabilised with density tests to verify that compaction was achieved in accordance with Geotechnical Specification and, where relevant, Council requirements.

C7. Land filled areas must be revegetated where appropriate.

C8. Embankment batters shall have a maximum slope based on geotechnical design advice.

6.5 Salinity

Objectives

O1. To minimise disturbance to natural hydrological systems as a result of development.
O2. To ensure the proper management of land affected by salinity.
O3. To prevent damage to buildings and infrastructure caused by salinity.
O4. To manage and mitigate impacts from salinity

Development Controls

Building Slabs/Concrete

C1. In order to prevent moisture rising through the slab, firstly lay a thick layer of sand on the building site. Next, lay a damp-proof membrane of thick plastic.

C2. Concrete can be made more resistant to salinity by increasing its strength to reduce the permeability. A sulfate resistant concrete can also be used which will reduce reinforcement corrosion. A minimum of 65 millimetres of concrete cover on strip or slab reinforcement is recommended in saline environments. Compaction and curing of the concrete are also advised.

Parks and Gardens

C3. Plant gardens which do not require a lot of watering. This includes use of native plants which do not require excess watering, deep rooted trees to prevent the ground water table rising, the use of mulch, and the reduction of lawn areas. See section Landscaping above.

C4. Where automatic watering systems are installed, measure soil moisture content to ensure they work, and to counter the possibility of over-watering.

C5. Do not locate gardens close to buildings, as watering may affect foundations or render the dampcourse ineffective.

6.6 Noise Impacts

Objectives

O1. To reduce road traffic noise.

O2. To limit noise impacts from vehicle traffic upon nearby and adjoining residential land.

O3. To implement a strategic approach to ensure that amenity objectives are not compromised.

O4. To achieve an equitable share of the amenity, as per The NSW Government's *Noise Policy for Industry*.

O5. To more evenly distribute allowable amenity noise limits amongst the employment sites.

O6. To minimise the risk of adverse cumulative impacts.

O7. To provide some flexibility in sharing the noise within each zone.

O8. To ensure that the use of the land does not create an offensive noise or add significantly to the background noise level of a locality.

Development Controls

C1. Ensure operations of the warehouses meets the amenity noise limits established in the development consent for the Site at nearby residential receivers.

6.7 Air Quality

Objectives

O1. To ensure no adverse impacts on residences both within and surrounding Pemulwuy.

O2. To ensure emissions minimise air quality impacts.

Development Controls

C1. Provide air quality control measures during and after development of the Estate.

C2. During construction, implement appropriate mitigation measures such as truck washing bays and wetting of dirt roads.

C3. Ensure that the use of any premises and machinery is in accordance with the Protection of the Environment Operations Act 1997.

C4. If any proposed use or activity within the Site falls into Schedule 1 of the *Protection of the Environment Operations Act 1997*, the occupier must hold a licence from the NSW EPA, or its equivalent.

C5. Ensure that the endorsement of any machinery used does not result in air pollution emissions that exceed EPA guidelines.

6.8 Waste Management

Objectives

O1. To manage litter and waste to minimise impacts.

Development Controls

C1. Provide adequate signs and rubbish bins to encourage proper disposal of litter.
C2. Secure rubbish bins sufficiently to prevent feral cats, dogs, rats or other undesirable species from opening them.
C3. Maintain and empty bins on a regular basis to prevent waste accumulating.
C4. Incorporate litter and waste management in the community consultation strategy.