Prospect South Lands

URBAN DESIGN STUDY

March 2018
Project no. 4463-00

DEM (Aust) Pty Ltd
Suite 202, Level 2, Tower B, The Zenith, Chatswood NSW 2067 Australia
PO Box 5036 West Chatswood NSW 1515 Australia

Tel: +61 (0)2 8966 6000 Fax: +61 (0)2 8966 6111 www.dem.com.au

Issue Register

Date of Issue	Reason for Issue	Prepared by	Checked by	Signed
29.11.17	Preliminary	JP AB JB	JP	
21.12.17	Preliminary for review	AB JB	JP	
15.01.18	Draft for review	AB JB	JP	
02.03.18	Final Issue	AB JB	JP	
09.03.18	Revised Final Issue	AB	JP	

Contents

1.0 Introduction

This report has been prepared by DEM (Aust) Pty Ltd on behalf of the Department of Planning –Office of Strategic lands as part of a submission to the Blacktown City Council in support of a Planning Proposal for a change in the zoning from Ru4 (Primary Production Small Lots) to In1 (General Industrial) and a slither of SP2 (Infrastructure).

1.1 Location and Context

The Prospect South Lands are located between the Western Motorway to the North and the Prospect Highway to the West. Vehicle access to the site is via the existing roundabout located at the intersection of Prospect Highway and Reservoir Road. The existing roads of Reservoir Road and Thornley Road currently provide access to the site. Existing industrial lots (IN1 and IN2 within the Cumberland LGA) are located to the south and east.

Figure 1.1: Location & Context

2.0 Strategic Planning Context

This section provides an overview of the strategic planning context in relation to the South Prospect Precinct's capacity to provide employment growth as reflected in the Draft Central City District Plan.

2.1 A Plan for Growing Sydney

The principal planning document guiding the growth of Sydney is "A Plan for Growing Sydney" released by the NSW State Government in December, 2014. The aim of this plan is to guide Sydney's growth over the next 20 years accommodating some 1.6 million people with a majority 900,000 estimated in Western Sydney.

The Draft Central City District notes that "In Blacktown Local Government Area, a major industry cluster of transport and logistics, storage, warehousing and distribution is developing. This cluster, together with more established industrial precincts, will capitalise on the growth of the Western Parkland and Central River cities. A future Western Sydney Freight Line through the southern part of the District will make surrounding industrial land more accessible and valuable for freight, warehousing and logistics businesses.

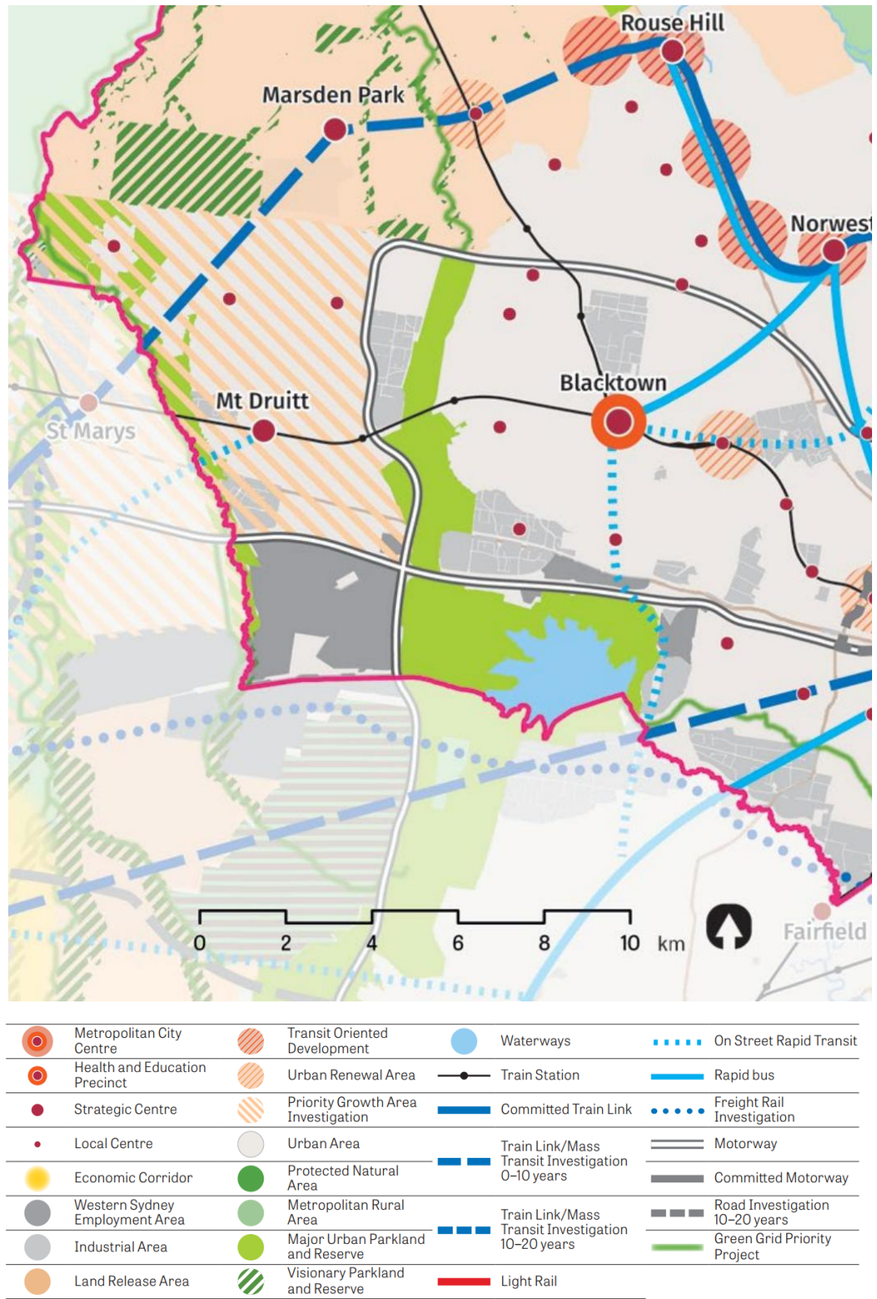
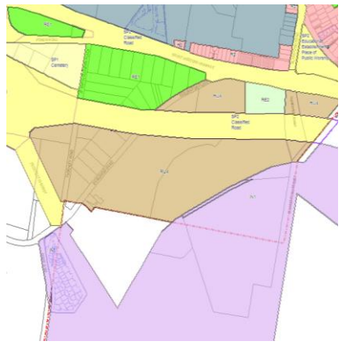
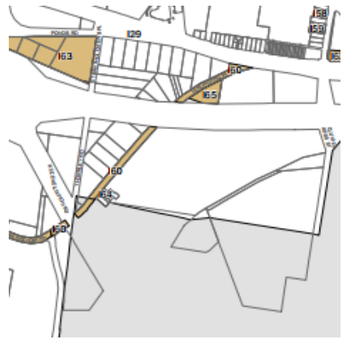


Figure 2.1: Central City District Structure Plan 2036
Source: Greater Sydney Commission Draft Central City District Plan.

3.0 Planning Controls

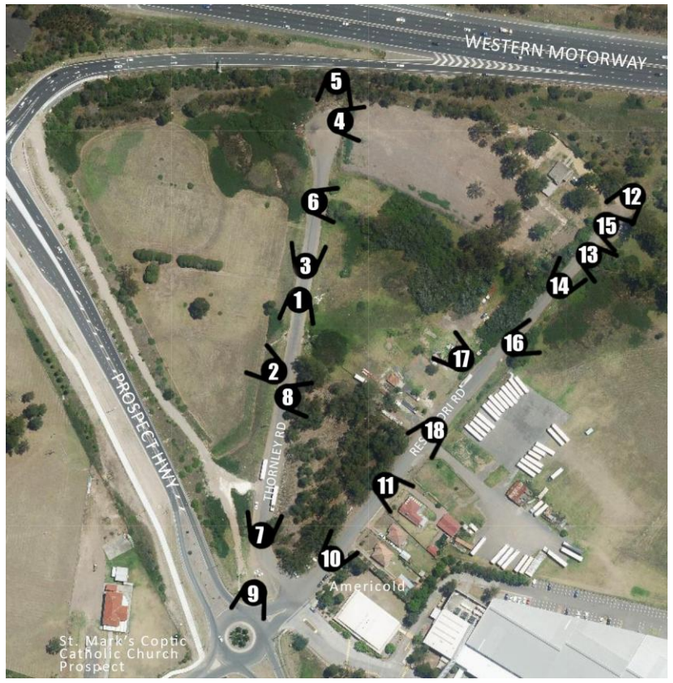
Blacktown Council LEP 2015		
ZONING	RU4– Rural Small Holding	 ZONING
FLOODING PRECINCTS	Flood Local Low / Medium	 Flooding Precincts
MINIMUM LOT SIZE	40 Ha	 MINIMUM LOT SIZE
HERITAGE	Local Significance Item 60 : Original Alignment of Great Western Highway Item 64: Bridestowe House	 HERITAGE

THE BLACKTOWN DCP 2015 - Part E Development in Industrial Areas	
Road corridors	• 20.5m total road reserve, • 13.5m Carriageway and • 3.5m verge either side. p.31 part A.
Access Rd Width	• Internal Road 7m min. p.16
Setback From Roads	• 20m-Arterial roads • 10m-Collector roads • 7.5m Local roads • 5m Secondary street. p.28
Buffer Zone Side	• 3m setback to building • 2m setback to hardstand. p28
Buffer Zone Rear	• 3m setback to building • 2m setback to hardstand. p28

Site Coverage	• 65% p.28
Soft Landscaping	• All setbacks landscaped p.13
Trees Required in Parking	• 1 every 10m. p.13
Emergency Access	• Refer BCA

4.0 Site Analysis

4.1 Existing Context



1 View south along Thornley Road

2 View East towards Prospect Hwy

3 View North along Thornley Road.

4 View East from Thornley Road along the boundary adjacent to the M4 Motorway

5 View South along Thornley Road from the M4 Motorway boundary

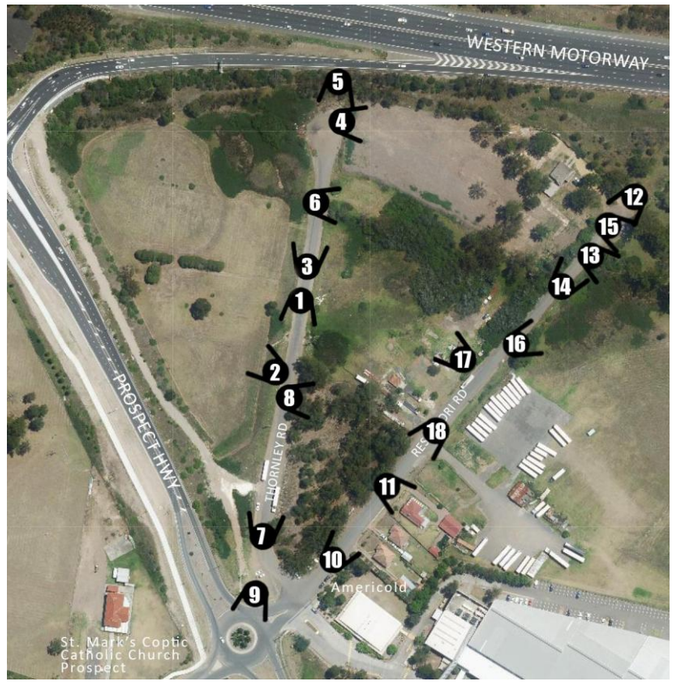
6 View west from Thornley Road along the overland drainage line.

7 View north along Thornley Road

8 View east across remnant Cumberland. Plain Woodland vegetation from Thornley Road

9 View of the roundabout vehicle access at the intersection of Prospect Highway and Reservoir Road.

Site Analysis



10 View north along Reservoir Road. (Note: Alignment of Reservoir Road is Local Heritage item 60.)

11 View of Bridestowe House Local Heritage item 64.

12 View south along Reservoir Road.

13 View east across Sydney coastal river flat forest alluvial woodland from Reservoir Road.

14 View north along Reservoir Road towards M4 Motorway.

15 View south-east across Sydney coastal river flat forest alluvial woodland from Reservoir Road.

16 View east from Reservoir Road.

17 View west from Reservoir Road.

18 View north along Reservoir Road with Bridestowe house on the left.

4.2 Access to Public Transport

- The site is located adjacent to Prospect Highway which accommodates the 812 bus route between to Blacktown Rail Station and Fairfield Rail Station.
- The closest bus stop located on Prospect Highway that service the 812 bus route is approximately 800m walking distance from the site.
- An existing cycle path is located along the western edge of Prospect Highway.

Figure 4.2: Public Transport Services

4.3 Context

- The site is currently zoned RU4 (Primary Production Small Lots) and is bounded by the M4 to the north and the Prospect Highway to the west.
- The land to the east of the site and bounded by Girraween Creek is zoned RU4 Rural Small Holding.
- Land adjacent to the site's southern boundary is within the Cumberland Council area and zoned IN2 Light Industrial.
- There are generally moderately steep to gentle falls across the site from highpoints located along the northern, southern and western boundaries of the site to an overland drainage line. The site falls approximately 13-15m from east to west.
- The overland drainage line flows from a retention basin located between the M4 and the off ramp to Prospect Highway to Girraween Creek.
- Land to the west of Prospect Highway is located within the Western Sydney Parklands a major urban parkland reserve.
- A large landscape buffer immediately north of the site creates a large setback to the M4 Motorway

Figure 4.3: Context

4.4 Existing vehicle circulation

- The site is accessed from the first roundabout after the M4 off ramp to Prospect Highway.
- Direct vehicle access to the site is via the roundabout at the intersection of Prospect Highway and Reservoir Road.
- Two local roads, Thornley and Reservoir Roads currently service the site. Both roads are constructed without kerb and gutters and have informal turning areas to accommodate large truck maneuvers.
- The alignment of Reservoir Road has State heritage significance as the original Western Highway alignment.
- A regional cycle way is located along the western edge of Prospect Highway connecting to Blacktown and the Western Sydney Parklands Reserve.

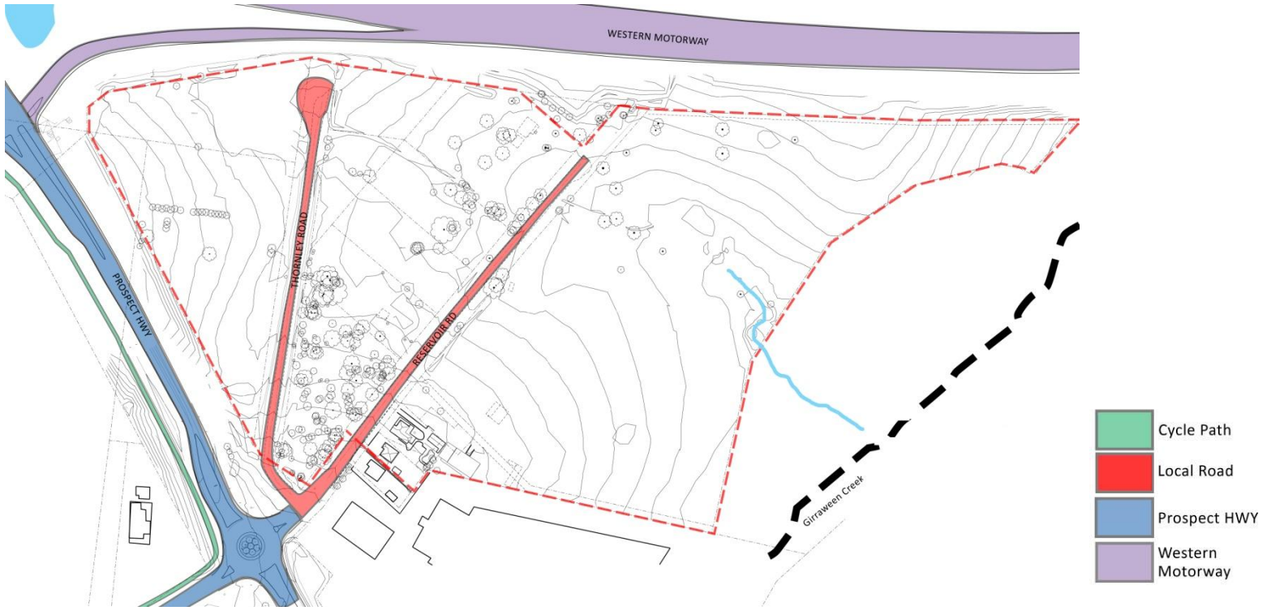


Figure 4.4Existing Vehicle Circulation

4.5 Existing Vegetation

- An area of remnant Cumberland Plain Woodland vegetation is located at the intersection of Reservoir and Thornley Roads. An area of remnant River Flat Eucalypt Forest on coastal flood plains is located towards the northern end of Reservoir Road. Both vegetation communities noted in the Biodiversity Constraints assessment are small, isolated and highly disturbed patches of vegetation. Biodiversity offsets have been proposed for these vegetation communities.
- Overland drainage extends from the retention basin located between the M4 Motorway, the Prospect Highway and Girraween Creek and is heavily vegetated and weed infested.
- A vegetated buffer to the M4 is located adjacent to the northern boundary of the site it varies in width between 12 and 36 meters.

Figure 4.5: Existing Vegetation

4.6 Heritage

- Two heritage items are located within the site.
- Item 60 State Heritage Significance: The alignment of Reservoir Road follows the original alignment of the Western Highway.
- Item 64 Local Heritage Significance: Bridestowe House located at 568 Reservoir Road.

  The house is a significant Victorian timber homestead relating to the Hick's Dairy Farm complex which operated in this area from 1884 - through to the 1940's, and was a major supplier to local markets in the area.

  It has historical significance as a significant early Prospect farm of value to the Prospect community, and aesthetic significance as a rare high quality example of a substantial Victorian era weatherboard building in the Blacktown Local Government Area.

Figure 4.6: Heritage

4.7 Services

- The major site services are currently situated within the two road reserves of Reservoir Road and Thornley Road.
- Additional electrical services are located within the reserve of Prospect Highway.
- Major Sydney Water watermain services including DN750, DN500 and DN100 are located within the Thornley Road reserve.
- Endeavour Energy has overhead power lines and underground cables within the Thornley Road reserve. They will require easements of 9 metres for the overhead power lines and 3 metres width easement for underground cables.
- Telstra communications services are located within the Thornley easement.

Fig 4.7.1: Main Site Services

5.0 Opportunities and Constraints

5.1 Site Opportunities

- The land to the south of the site within the Cumberland Council LGA is zoned IN2 Light industrial.
- The existing vegetation communities of the Cumberland Plain Woodland and the remnant River Flat Eucalypt Forest on coastal flood plains are proposed to have a biodiversity certification and biodiversity offsets proposed to compensate for the loss of biodiversity. Refer Prospect South Rezoning – Biodiversity constraints assessment.
- The regional cycle way located along the western edge of the Prospect highway would provide the opportunity for cycle access to the site.
- The reuse of existing roads could assist to reduce the cost of building new roads.
- Bridestowe House heritage item could be redeveloped for retail uses such as a café.
- The northern boundary to the M4 could provide good visual road frontage for businesses.
- The western boundary to Prospect Highway could provide good visual road frontage for businesses.

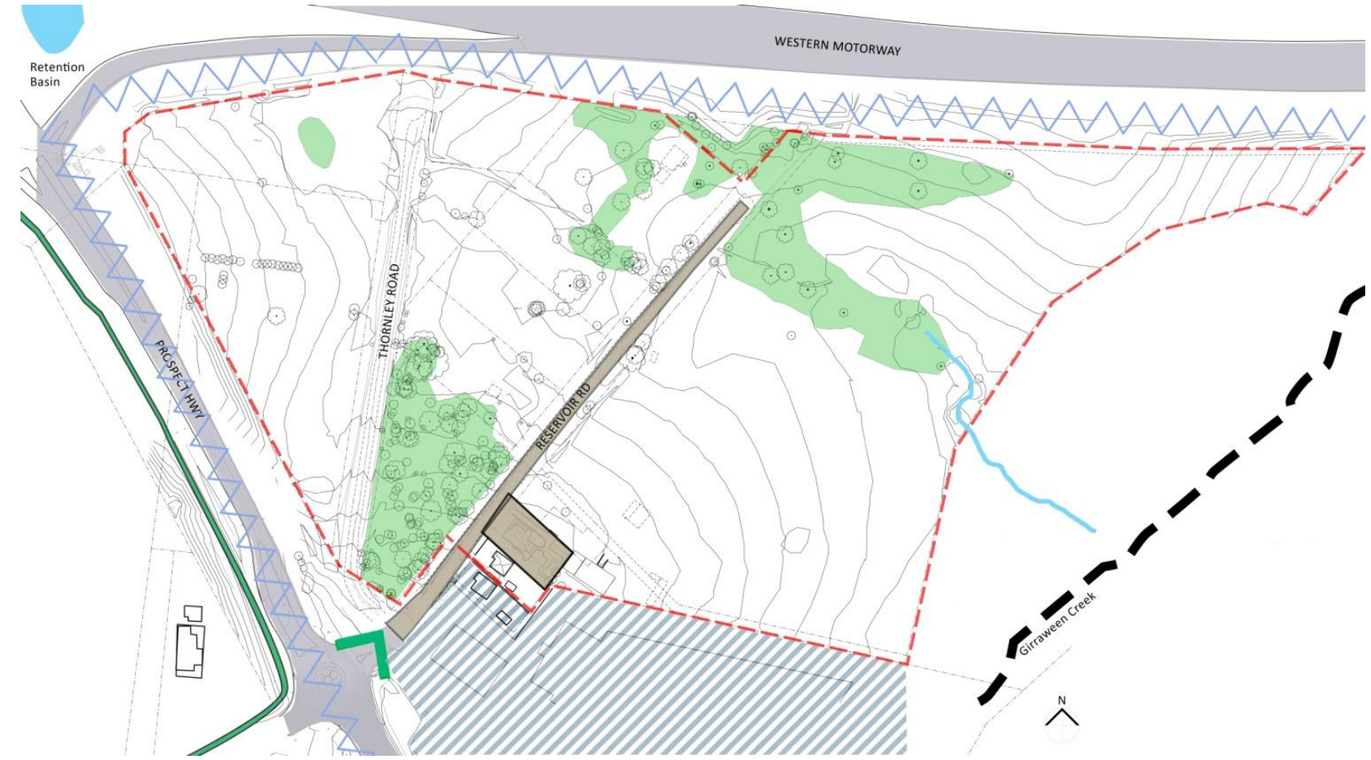


Figure 5.1: Site Opportunities

5.2 Site Constraints

- Vehicle access is from the round about located at the intersection of Prospect Highway and Reservior Road. The site is inaccessible by Vehicle and pedestrian access from the Prospect Highway and the M4 off ramp.
- The remnant Cumberland Plain Woodland and the remnant River Flat Eucalypt Forest on coastal flood plains requires biodiversity offset to be removed.
- Pedestrian access is via the round about located at the intersection of Prospect Highway and Reservior Road.
- Bridestowe House heritage item is of local significance and should be retained.
- Reservoir road alignment is of State significance and warrants merit to be retained. Potential for heritage interpretation at DA Stage.
- The site falls by about 13-15m which and in the general direction of the east and may create some challenges to large lot industrial estates.
- Sydney Water has significant water mains within the road reserve of Thornley Road.

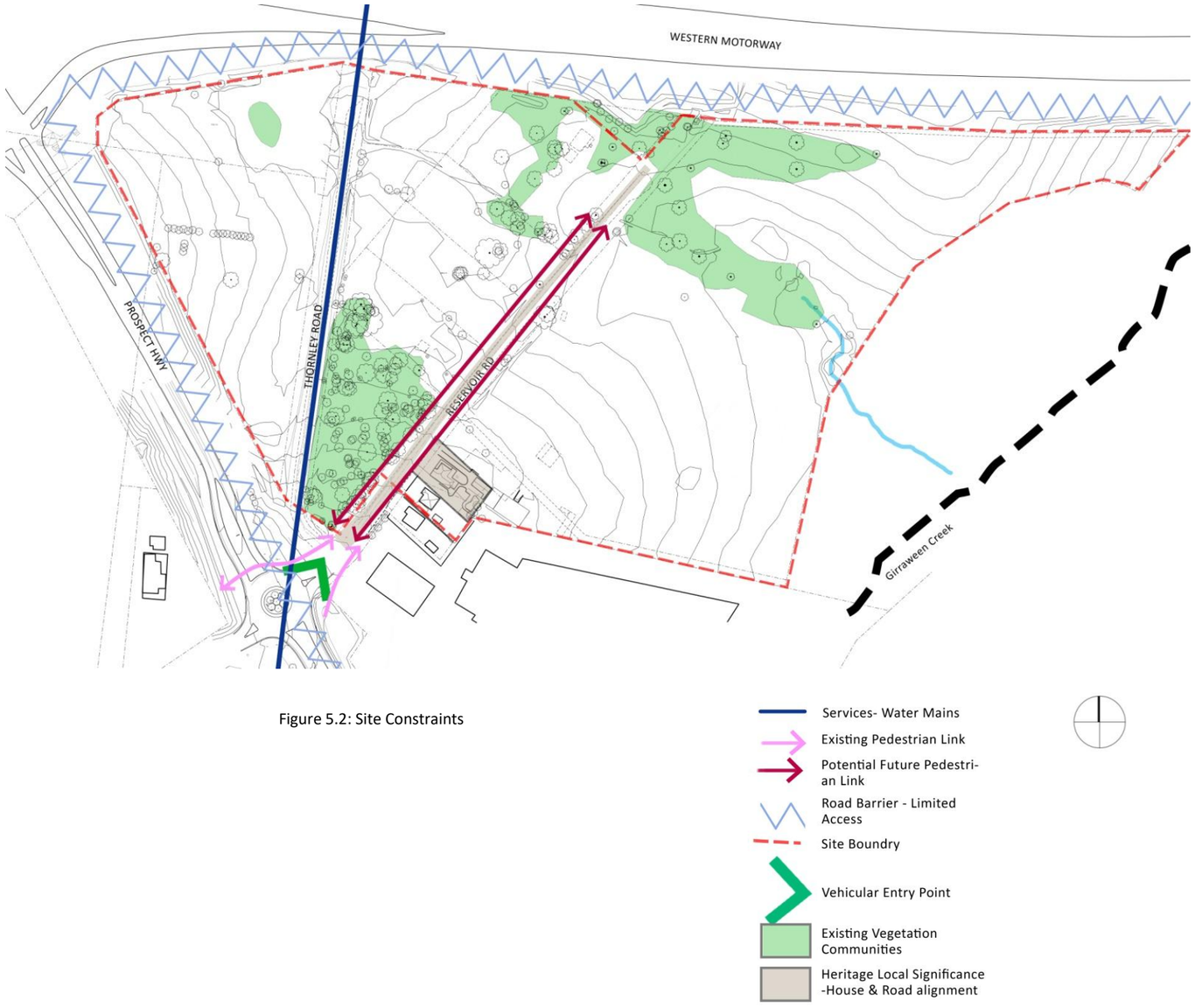


Figure 5.2: Site Constraints

6.0 Concept Plan Options

6.1 Prospect South Masterplan Option 1

- This option retains the alignment of Thornley and Reservoir Roads. The alignment of Reservoir Road follows the former Western Highway alignment which is of state heritage significance.
- The layout provides 3 lots of different sizes and shapes. Two lots end up being quite triangular in shape.
- The existing road corridors have been widened and formalised to accomodate a proposed 13.5m road pavement including two travel lanes and two parking lanes to marry into the existing reservoir road. A 3.5m verge either side of the road with pedestrian paths to both sides.
- The final configuration for the future upgrading of Reservoir Road will need to be informed through a Statement of Heritage Impact report.
- Local heritage of Bridestowe House has been retained. (Curtilage to be determined).
- Thornley Road alignment has been maintained due to the existing watermain services.

Advantages

- Retaining Thornley Road and Reservoir Roads will provide the opportunity to reuse two existing roads.
- Proposed road layout creates the opportunity for a variety of lot sizes.
- Majority of lots will have an extensive road frontage.
- Retention of major services (Power & Water) in current location along Thornley road.
- Carparking requirements have been achieved within each lot.
- Preliminary stormwater volumes have been accommodated for each lot within proposed vegetated on-site detention basins based on Arcadis stormwater design - requires further development.

Disadvantages

- Proximately of the intersection of Thornley and Reservoir Roads is close to the roundabout on Prospect Highway which may impact on the maneuvering of larger vehicles. Possible relocation of Thornley Road access requires further investigation.
- Maintaining the existing alignment of Thornley Road creates 2 irregular shaped lots of land between Reservoir Road and the Prospect Highway.
- Maximising site coverage for the two irregular lots requires non standard buildings.
- The Blacktown Council standard setbacks have a greater impact on the smaller irregular lots.
- Large site building pads will require significant cut and fill with steep batters or retaining walls

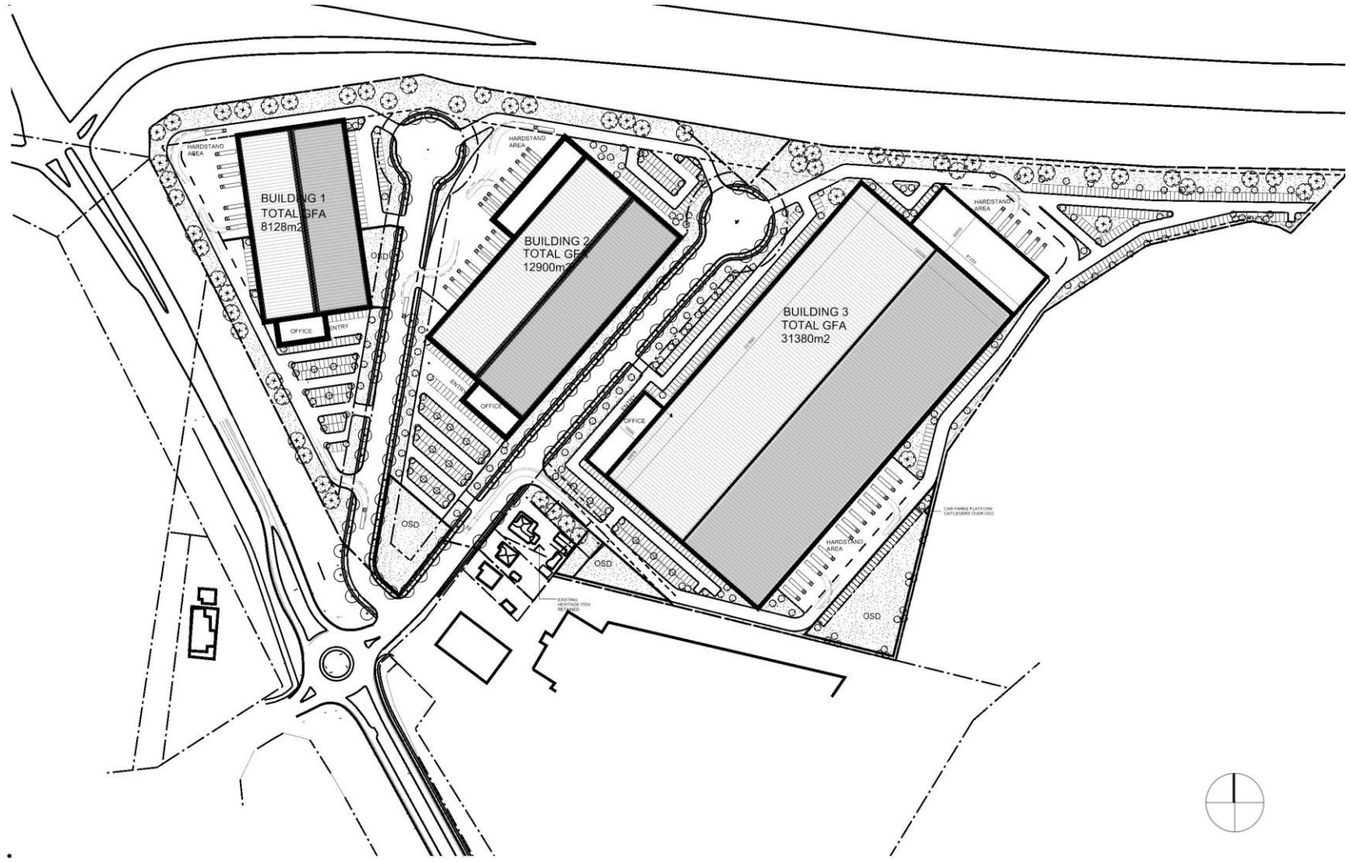


Figure 6.1: Option 1- Prospect South Masterplan

	BUILDING 1	BUILDING 2	BUILDING 3
WAREHOUSE GFA	7228M2	11900M2	30230m2
OFFICE GFA	900M2 2 STOREY	1000M2 2 STOREY	1150m2 1 STOREY
TOTAL GFA	8128M2	12900M2	31380m2
CAR SPACE REQUIRED	119	170	432
CAR SPACE ACHIEVED	130	173	436

6.2 Prospect South Masterplan Option 1a

- This option retains the alignment of Reservoir Road.
  The alignment of Reservoir Road follows the former Western Highway alignment which is of state heritage significance.
- The alignment of Thornley Road is retained but within an easement for services and driveway access to buildings 1 and 2. Water and Power is retained within this easement.
- The layout provides 3 lots of different sizes and shapes. Two lots end up being quite triangular in shape.
- The existing Reservoir road corridor has been widened and formalised to accomodate a proposed 13.5m road pavement including two travel lanes and two parking lanes to marry into the existing reservoir road. A 3.5m verge either side of the road with pedestrian paths to both sides.
- The final configuration for the future upgrading of Reservoir Road will need to be informed through a Statement of Heritage Impact.
- Local heritage of Bridestowe House has been retained. (Curtilage to be determined).
- Thornley Road alignment as an easement has been maintained due to the existing watermain services.

Advantages

- Retaining Reservoir Road will provide the opportunity to reuse the existing road.
- Proposed use of Thornley road as an easement creates the opportunity for greater lot sizes and larger standard warehouses over option 1.
- Majority of lots will have an extensive road frontage.
- Retention of major services (Power & Water) in current location along Thornley easement.
- Carparking requirements have been achieved within each lot.
- Preliminary stormwater volumes have been accommodated for each lot within proposed vegetated on-site detention basins based on Arcadis stormwater design - requires further development.

Disadvantages

- Proximately of the intersection of Thornley and Reservoir Roads is close to the roundabout on Prospect Highway which may impact on the maneuvering of larger vehicles. Possible relocation of Thornley Road access requires further investigation.
- Creation of easement along line of Thornley Road with stakeholders requires future investigation.
- Maintaining the existing alignment of Thornley Road creates 2 Irregular shaped lots of land between Reservoir Road and the Prospect Highway.
- Maximising site coverage for the two irregular lots requires non standard buildings.
- The Blacktown Council standard Setbacks have a greater impact on the smaller irregular lots.
- Large site building pads will require significant cut and fill with steep batters or retaining walls

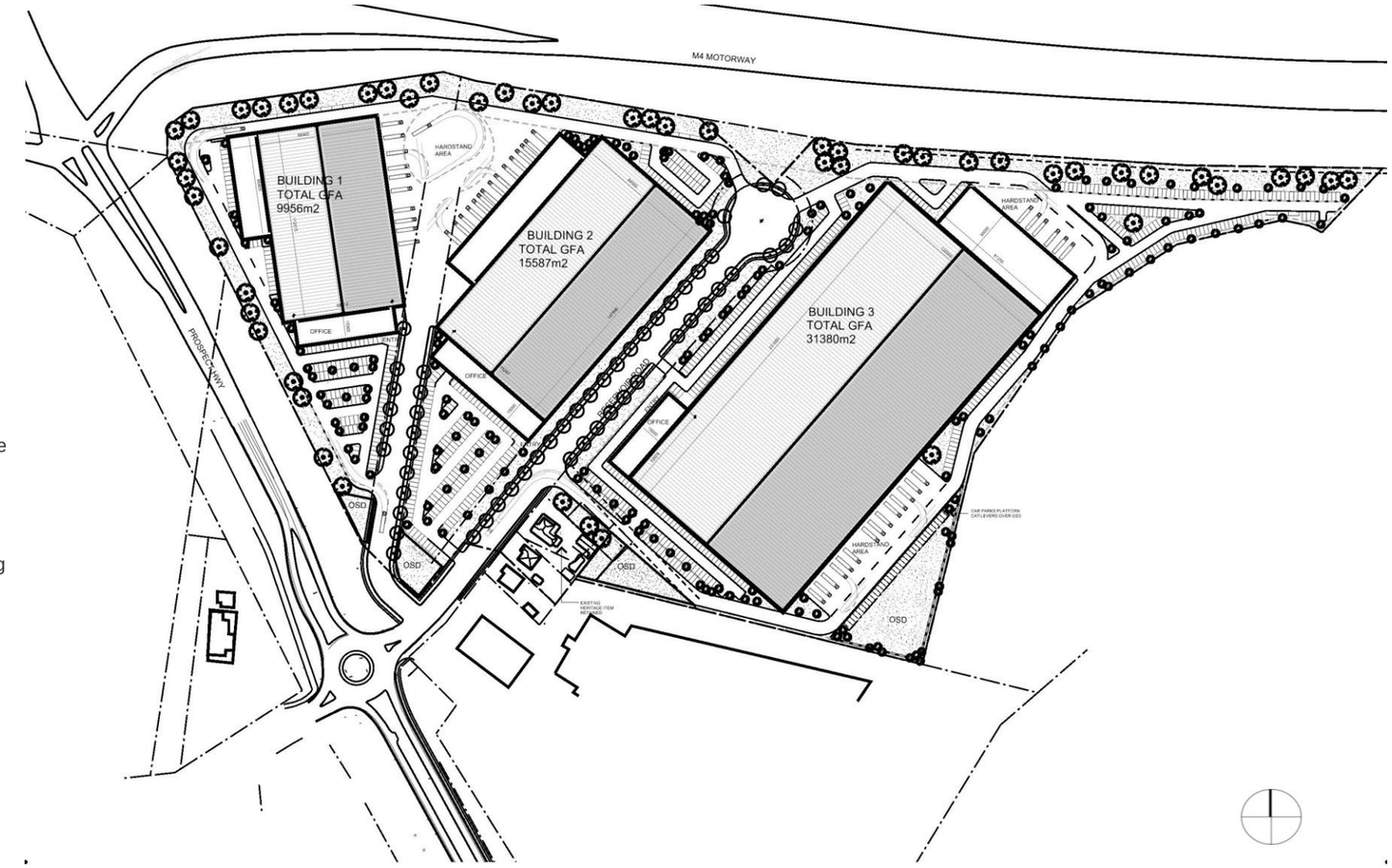


Figure 6.2: Option 1a – Prospect South Masterplan

	BUILDING 1	BUILDING 2	BUILDING 3
WAREHOUSE GFA	9078m2	14462m2	30230m2
1 STOREY OFFICE GFA	878m2	1125m2	1150m2
TOTAL GFA	9956m2	15587m2	31380m2
CAR SPACE REQUIRED	143	221	432
CAR SPACE ACHIEVED	143	221	436

7.0 Preferred Concept Plan

7.1 Design Principles.

- To ensure adequate opportunity for perimeter planting, landscape design and attractive buildings to be located around entrances and visible areas.
- To allow for a range of allotment sizes that caters for a diversity of land uses and employment opportunities.
- To ensure allotments are oriented to ensure buildings appropriately address the street and public realm areas.
- Lots are to be relatively regular in shape.
- Avoid or minimise Irregular shaped allotments with narrow street frontages.
- Lots should be orientated and towards the streets to increase the opportunity for good passive surveillance and to avoid streetscapes with loading docks and blank facades visible from the street.
- Entries to sites and buildings should be visible from the street.

Figure 7.1.1: Preferred Concept Plan

Preferred Concept Plan

Figure 7.1.2: Birds eye view

Figure 7.1.3: Perspective view north along Reservoir Road

Figure 7.1.4: Perspective view north along Thornley Road

7.2 Existing Road Configuration

- The Blacktown DCP Part E requires a Road Reserve of 20.5m which is to include a 13.5m wide carriageway and 3.5m verges to both sides.
- The existing width of Reservoir Road reserve within the site area is approximately 20m.
- Reservoir Road alignment is a heritage item.
- The existing width of Reservoir Road west of Prospect Highway is approximately 12m.
- The existing width of Reservoir Road east of Prospect Highway is approximately 8-13m. Only part of this road is formed with kerb and gutter to a section on the southern side of the road.
- 12m wide roads are used within the Cumberland Holroyd Industrial estate to the south.

7.3 Proposed Road Layout

- The state heritage item of the Reservoir Road alignment will be retained and formalised within the existing road reserve boundaries.
- The existing road corridor will be formalised and consist of the following requirements to be contained within the existing road reserve:
- 12.5m road pavement with two travel lanes and two parking lanes.
- The east verge will be 3.5m verge and the west verge will be 4m.
- 1.2m pedestrian paths are proposed to both sides of the road.
- The kerb infront of the heritage house Bridestowe will be adjusted to match the alignment of the existing industrial estate adjacent to the site at the beginning of the street.
- Street lighting is proposed as per Blacktown DCP
- Street trees are proposed to both side of the road. Species inaccordance with Blacktown Council DCP for Inductrical Areas Part E 2015.
- Final design of the Reservoir Road will be informed through a heritage assessment which would include possible interpretation (plaques, signage, landscaping or naming etc).

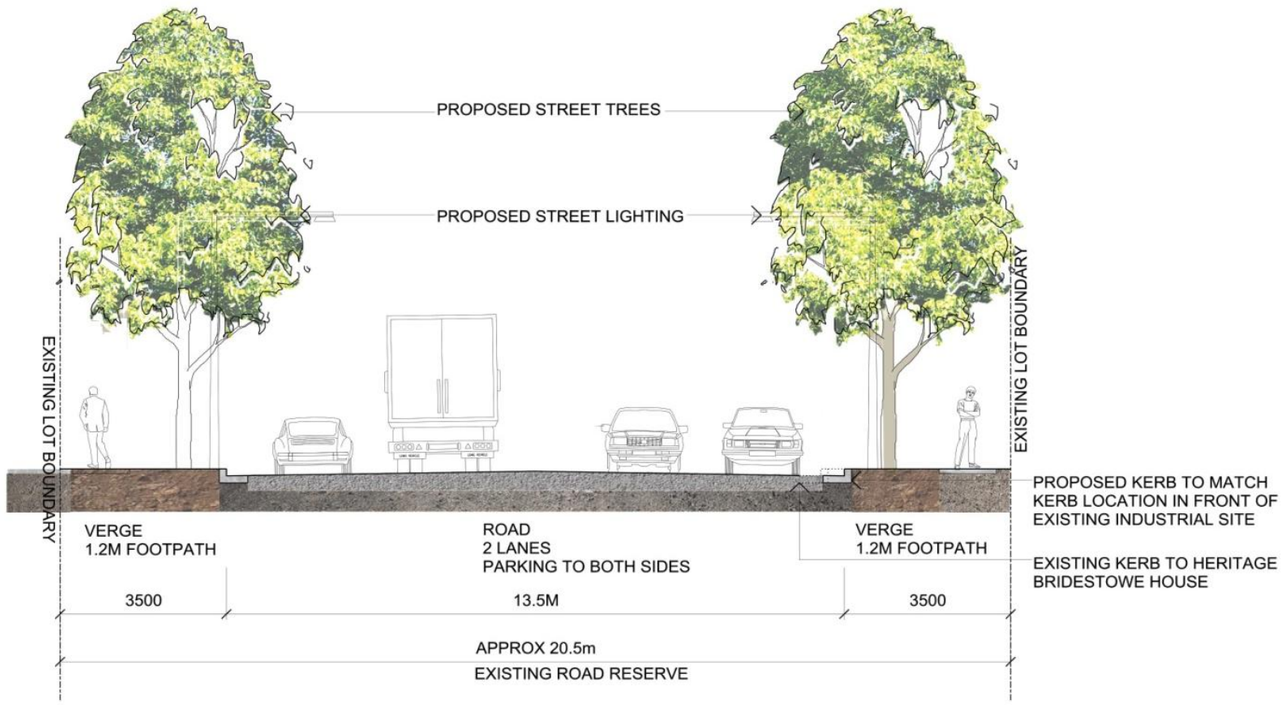


Figure 7.3: Proposed Reservoir Road Section

7.4 Pedestrian & Vehicular Access

	BUILDING 1	BUILDING 2	BUILDING 3
WAREHOUSE GFA	7228M2	11900M2	30230m2
OFFICE GFA	900M2 2 STOREY	1000M2 2 STOREY	1150m2 1 STOREY
TOTAL GFA	8128M2	12900M2	31380m2
CARSPACE REQUIRED	119	170	432
CARSPACE ACHIEVED	130	173	436

LEGEND

- PARKING ON SITE
- PARKING ON STREET
- PEDESTRIAN PATH OF TRAVEL
- PEDESTRIAN ACCESS
- VEHICLE ACCESS
- VEHICLE PATH OF TRAVEL TO SITES
- LOOP ACCESS ROAD

Figure 7.4: Pedestrian & Vehicular Access

8.0 Design Guidelines

8.1 Site Guidelines (Blacktown DCP Part E)

8.1.1 Lot Sizes

- Maximum lot sizes provided for the site

8.1.2 Setbacks

- The objectives of this section are as follows:
  - (a) To define the building area within each allotment by specifying minimum setbacks.
  - (b) To provide for landscaping and other beautification works on the site's street frontages by using setbacks exclusively for landscaping works
  - (c) To ensure that buildings present an acceptable scale and bulk when viewed from the street by varying minimum setbacks as circumstances may dictate.

- All setbacks are to be landscaped in accordance with Blacktown DCP
- Front setback to Reservoir Road : Minimum 7.5m to building
- Set back to Western Motorway: Minimum 20m to building
- Set back to Prospect Highway: Minimum 10m to building
- Side set backs are 3 metres to the building and 2 metres to hardstand.
- Rear set backs are 3 metres to the building and 2 metres to hardstand.
- Front fence to be setback 1 metre from the front boundary

Council may consider allowing car parking within the setback to a SP2 Infrastructure – Classified Road, to within 10m of the street alignment, if the design of the development creates an attractive streetscape.

Setback areas to public roads are to be landscaped and maintained as open areas only, so as to enhance the streetscape appearance of all industrial development. No storage of any kind is to occur within landscaped setback areas.

Fencing within the minimum setback area is not encouraged. However, if fencing is required for safety or security reasons any fencing provided must be:

(a) Open-style fencing (e.g. pool fencing)

(b) Fencing which does not obstruct the view of landscaping from the street or a driver's view (from the driveway) of the road.

Where developments front roads zoned SP2 Infrastructure – Classified Road or SP2 Infrastructure – Local Road, fencing shall be provided and shall be a minimum height of 1.2m and constructed so as to prevent vehicular and pedestrian access to or from those roads.

All fencing materials used shall be to Council's satisfaction. Pre-painted solid metal fencing is not acceptable to Council. 4.2 Landscaping Objectives in respect to landscaping in the industrial and B5 zones are as follows:
(a) To encourage a high standard of environmental quality of individual developments, whilst enhancing the general streetscape and amenity of the area by providing high standard landscaping

	BUILDING 1	BUILDING 2	BUILDING 3
WAREHOUSE GFA	7228M2	11900M2	30230m2
OFFICE GFA	900M2 2 STOREY	1000M2 2 STOREY	1150m2 1 STOREY
TOTAL GFA	8128M2	12900M2	31380m2
CARSPACE REQUIRED	119	170	432
CARSPACE ACHIEVED	130	173	436

Figure 8.1: Setbacks

8.2 Built form approach

Building Design Objectives:

1) To enhance the visual quality of South Prospect through the selection of appropriate materials with integral finish and colours for longevity and low maintenance.
2) To encourage the use of materials that minimise impact on the environment.
3) To ensure that any reflective materials proposed do not visually impact on neighbouring properties, surrounding vehicular traffic and the public domain.
4) Ensure that ancillary buildings, storage and service areas are considered part of the overall design, and do not detract from the amenity and appearance of the South Prospect industrial precinct.
5) Provide legible, attractive and safe entrances to buildings for pedestrians.
6) Ensure that signage and lighting supports the visual appearance of the building and surrounding landscape.

Building Design Guidelines

Building designs to be located within the South Prospect Industrial precinct :

- Should provide variety to facades through building modulating to emphasise entries street corners and varying roof forms.
- Buildings should provide effective sun shading for windows, wall surfaces and building entries by the using overhanging eaves and awnings, under crofts, colonnades and external sun shading devices.
- Weather protection to be located within loading areas should be designed as a part of the overall building form.
- Building bulk and scale should be designed to minimise impact on district views.
- Building facades should be articulated using external structures, a variety of materials, finishes, and colours, blank building facades facing street frontages should be avoided.
- Buildings with dual street frontage should be designed to ensure that the building addresses both frontages.
- Roller shutters, loading docks and other building openings should be located so as not to detract from the overall appearance of the building. Where possible, roller shutters should not be located along the primary street frontage.
- Roof design should be visually interesting and provide for natural lighting and compatibility with the overall building design.
- Lift motor rooms and plant rooms, should be suitably screened and integrated with the building.
- External materials should be durable, high-quality, with integral colour and finish and require low maintenance.
- Building entries should be legible and safe for pedestrians and vehicles.
- Way finding signage and branding to be integrated into building form.

8.3 Landscape Controls

Objectives in respect to landscaping in the Blacktown DCP Part E industrial and B5 zones are as follows:

- To encourage a high standard of environmental quality of individual developments, whilst enhancing the general streetscape and amenity of the area by providing high standard landscaping
- To minimise loss of vegetation during the land development process by incorporating as many existing trees as possible within landscaped setbacks
- To ensure that vegetation removed as part of the land development process is replaced by suitable indigenous species.
- Landscaping is deemed to include both hard and soft works. Hard works include such things as paving, ramp walls, ornamental pools, terracing, sculptures, retaining walls and kerbing. Soft works refer to vegetation (including grass, shrubs and trees) and earthworks.

Landscaping should be integrated with the overall building design and used to:

- Highlight architectural features, aesthetic qualities and provide a human scale development
- Define and identify areas such as site and building entries and car parking areas
- Adjust and ameliorate adverse site conditions by providing shade, reducing reflective glare from hard surfaces, providing wind protection, screening and the like.

Landscaping proposals should generally be in accordance with the following requirements:

- Every effort should be made to preserve existing trees and any associated native understorey in accordance with the provisions of Clause 5.9 of Blacktown LEP 2015 (Preservation of Trees or Vegetation)
- All setback areas are to be landscaped and maintained incorporating as many existing trees as possible. Undeveloped areas are to be stabilised to prevent soil erosion. Landscaping may be required around the perimeter of undeveloped areas
- Car parking areas are to be suitably treated with landscaping to soften the appearance of the areas and to provide shade for parked cars. At a minimum standard one tree should be planted every 10 metres and be at a minimum height of 1m at the time of planting. Trees should be planted to achieve 50% shading of the carpark at ten year maturity.
- All landscaped areas are to be separated from vehicular areas by means of a kerb, dwarf wall or other effective physical barrier, however full fencing of landscaped areas is not encouraged
- Earth mounding (where on-site detention of drainage is not required) may be used within the setback area. Embankments that are not finished with rockeries or walls should not be steeper than 1:4 gradient in order to enable vegetation to be grown and maintained
- All irrigation systems shall be automatic and designed to meet specific site requirements. Minimisation of water consumption should also be a consideration in the design of irrigation systems. Reliance on irrigation systems for the survival of chosen plant species is not encouraged.

Figure 8.4.1 Landscape Buffer