



NEPEAN BUSINESS PARK URBAN DESIGN STUDY & MASTER PLAN

Old Castlereagh Road & Lugard Street, Penrith Lakes

OCTOBER 2021



NEPEAN BUSINESS PARK URBAN DESIGN STUDY & MASTER PLAN

Prepared for the Precinct Group



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1.0 INTRODUCTION

1.1 PURPOSE

This Urban Design Study and Master Plan document has been prepared to guide the planning and design of the future development of Nepean Business Park ('NBP').

1.2 SCOPE

Nepean Business Park has been strategically planned consistent with the NSW Government's vision "A Metropolis of Three Cities" where most residents live within 30m minutes of their jobs, education and health facilities, services and great places.

This study acknowledges the planning framework relevant to and established for the employment zone, the vision for the employment precinct and adopts best practise in site planning and urban design.

This document will provide all stakeholders with a long-term site planning and design framework for NBP, to facilitate its orderly staged development. It will assist all stakeholders, including the public to understand the future character of NBP.

1.3 THE SITE

This study applies to all lands on Lots 1,2 & 3/ DP1263486, known as 14-98 Old Castlereagh Road, Penrith.

The site occupies an area of approximately 49 Ha, south of Old Castlereagh Road, north of the elbow of the Nepean River, between the junction of the Great River Walk and the Great West Walk. It is situated north-west of the Penrith CBD and approximately 2 km from the Penrith Train Station. To the north of Old Castlereagh Road is the Penrith Lakes Tourism South Precinct and the Penrith Lakes Parklands. Immediately to its east and south is the established North Penrith industrial area.

In the past, the site was used for extraction and processing of sand and gravel materials that included a system of tailing ponds. Today, part of the site has been capped and levelled and to date, this rehabilitation work is still in progress.

Within the Penrith Lakes SEPP boundary, NBP is the only employment zoned land, located on the south eastern fringe of the SEPP area.



FIGURE 1.1 THE SITE

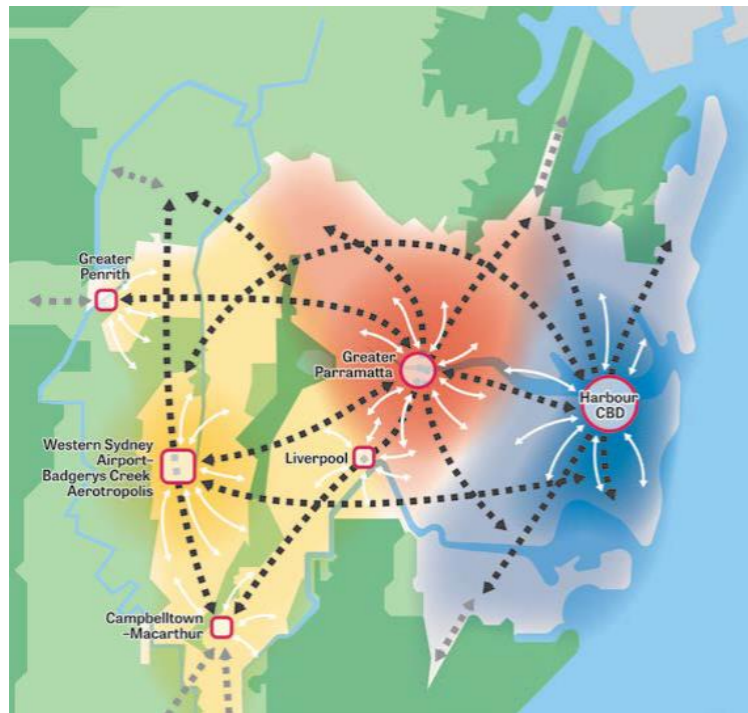


FIGURE 1.2 NBP WITHIN CONTEXT OF THE METROPOLIS OF THREE CITIES

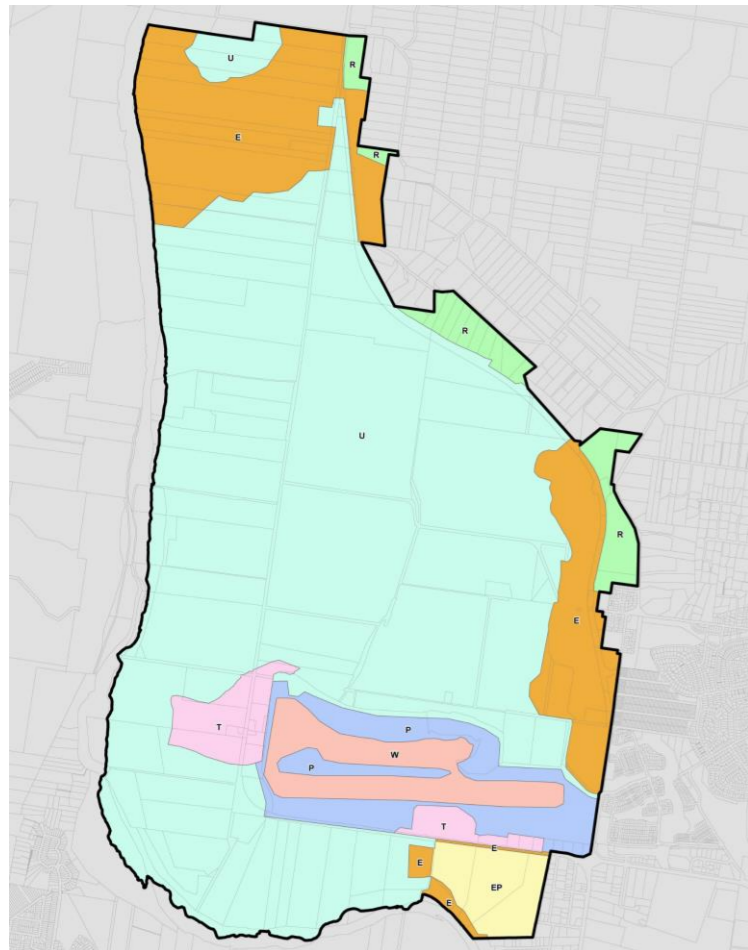


FIGURE 1.3 NBP WITHIN PENRITH LAKES SEPP AREA

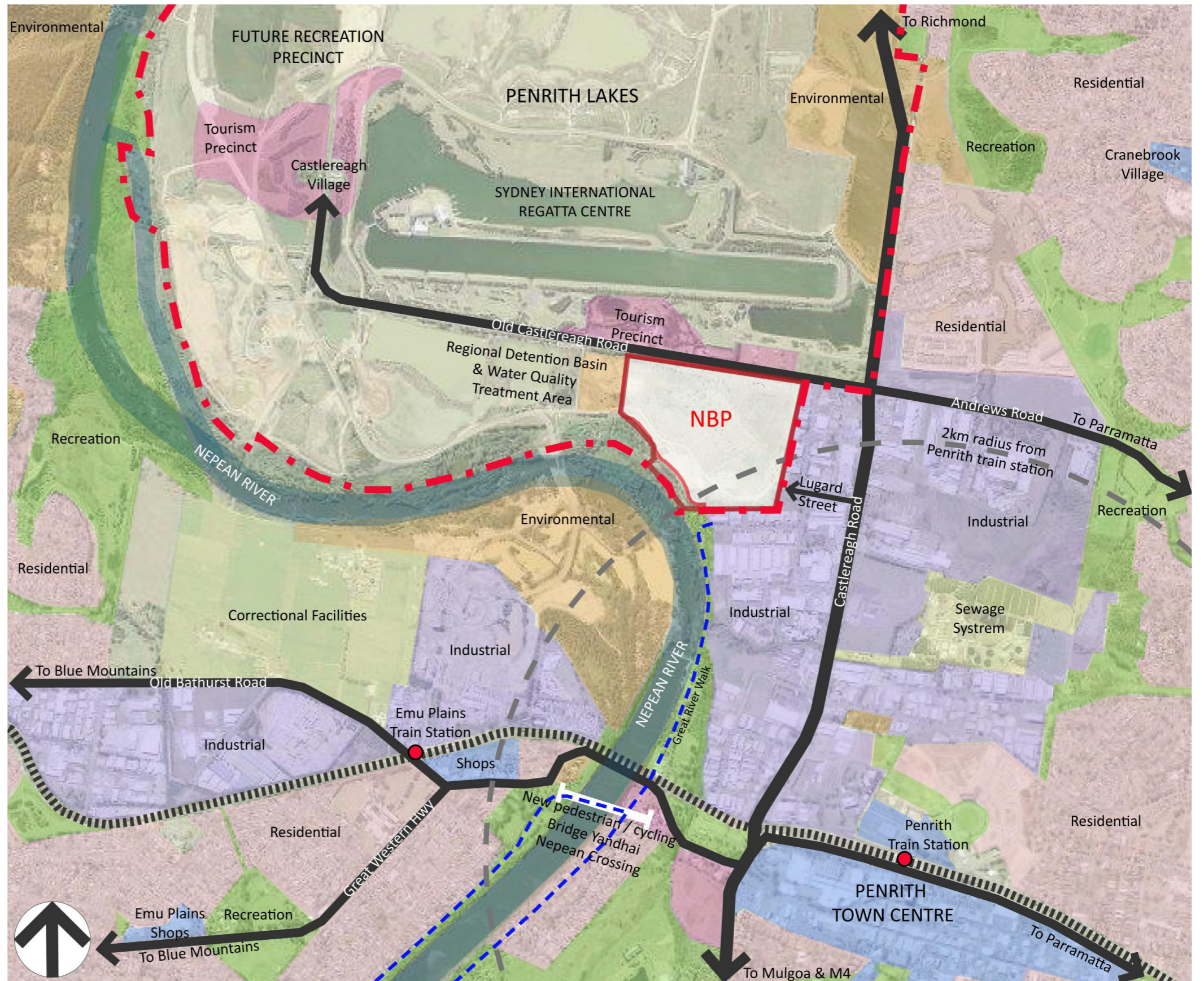


FIGURE 1.4 IMMEDIATE CONTEXT OF THE SITE

2.0 PLANNING FRAMEWORK

2.1 RELEVANT POLICY

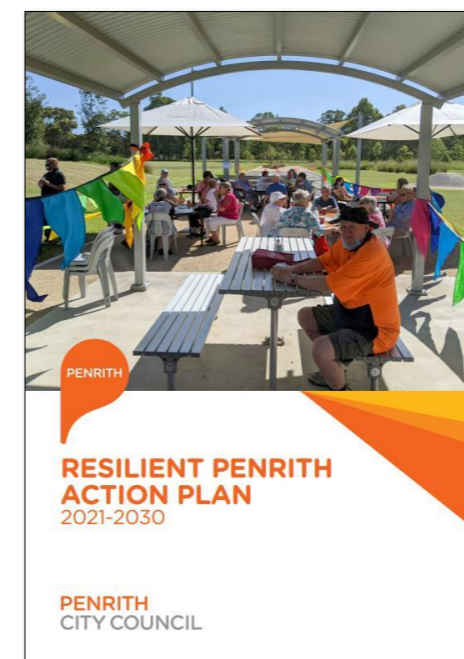
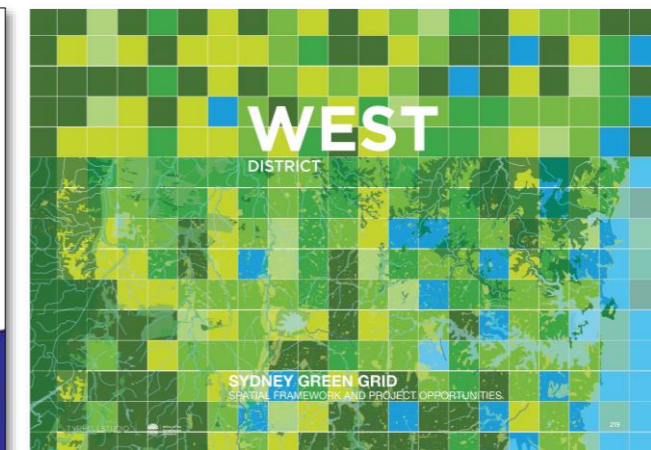
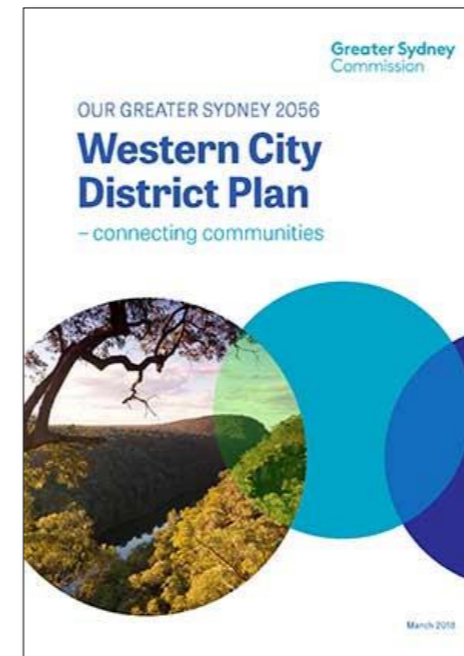
This Urban Design Study for the NBP has been based on current planning policy from State and Local Government that is relevant to this project.

These policies include:

- **State Environmental Planning Policy (Penrith Lakes Scheme) 1989 (Penrith Lakes SEPP) - Employment Zone objectives:**
 - To provide a range of office and light industrial uses and to provide employment opportunities relating to health, high order technology, culture and sports.
 - To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
 - To provide for a range of higher order job opportunities including health, cultural and high technology industries.
 - To incorporate appropriate water quality management measures to ensure that development does not detrimentally impact on the implementation of the Penrith Lakes Scheme and the operation and use of olympic legacy infrastructure, including the Sydney International Regatta Centre and the Penrith Whitewater Stadium.
 - To encourage the development of business incubators, and other employment opportunities relating to tourism and water-based sport and recreation.

- **Western City District Plan (March 2018) – this sets the strategic planning direction for the Western City District. A number of planning priorities apply to the Nepean Business Park including:**
 - Sustainability section Planning Priority W12 – Protecting and improving the health and enjoyment of the District’s waterways
 - Planning Priority W12 – Planning Priority W15. Increasing urban tree canopy cover and delivering Green Grid connections
 - Planning Priority W9 – Growing and strengthening the metropolitan cluster. The Collaboration Area for Greater Penrith includes Action j. which states connect and activate the Nepean River as a focal point and a destination

- **Sydney Green Grid (March 2017) – establishes a framework of existing and future green infrastructure connections across the City**
 - The Great River Walk, the Nepean River and Penrith Lakes are identified as key project opportunities
 - The plan also calls for increased access to open space and enhancement of the Nepean River foreshore between Penrith and Penrith Lakes



Planning policy developed by Penrith City Council that is directly relevant to the urban design and landscape of the Business Park include:

- Penrith Local Environmental Plan 2010
- Local Strategic Planning Statement 2020
- Penrith Urban Study 2009
- Cooling the City Strategy 2015
- Resilient Penrith Action Plan 2021 - 2030

2.2 OVERARCHING URBAN DESIGN AND LANDSCAPE STRATEGY

Principles outlined later in this document are sourced from The Commonwealth Government's Urban Design Protocol and apply equally to built form and landscape.

The Urban Design Protocol is founded on five pillars:

- Productivity
- Sustainability
- Liveability
- leadership and
- design excellence.

These principles are interrelated with the five foundation pillars of the Protocol illustrated below.

Eight basic principles underpin the productivity, sustainability and liveability pillars – refer following page.

CREATING PLACES FOR PEOPLE

AN URBAN DESIGN PROTOCOL FOR AUSTRALIAN CITIES



To create productive, sustainable and liveable places for people through leadership and the integration of design excellence



Aim	What is being achieved (outcome)			How it's achieved (process)	
	Productivity	Sustainability	Liveability	Leadership	Design
Creates productive, sustainable + liveable places for people through leadership + the integration of design excellence	Enhances economic productivity + living affordability	Fosters environmental responsibility	Cultivates healthy, cohesive + inclusive communities	Demonstrates visionary leadership + governance	Integrates design excellence
Design principles about place: productivity + sustainability					
Enhancing Enhances local economy, environment + community	+	✓	✓	✓	✓
Connected Connects physically + socially	⊗	✓	✓	✓	✓
Diverse Diversity of options + experiences	✳	✓	✓	✓	✓
Enduring Sustainable, enduring + resilient	∞	✓	✓		✓
Design principles about people: liveability					
Comfortable Comfortable + welcoming	👤			✓	✓
Vibrant Vibrant, with people around	👤	✓		✓	✓
Safe Feels safe	👤			✓	✓
Walkable Enjoyable + easy to walk + bicycle around	👤		✓	✓	✓

2.3 DESIGN EXCELLENCE

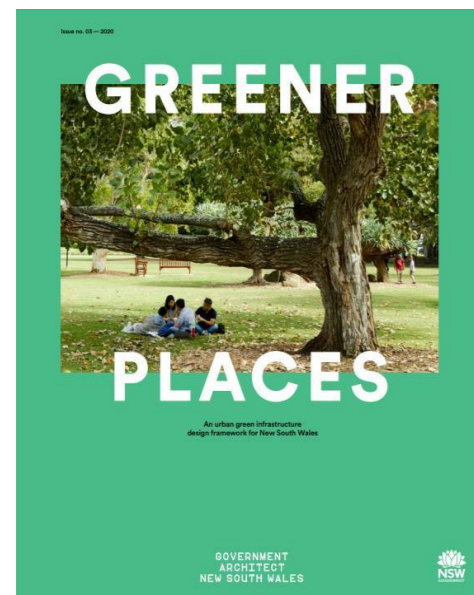
Design excellence is a process that ensures that projects of this nature achieve the highest standards of best-practice design. This is described by the Government Architect of NSW (GANSW) in the documents Better Placed and Greener Places.



Better Placed May 2017

The key to design excellence is the creation of places that are:

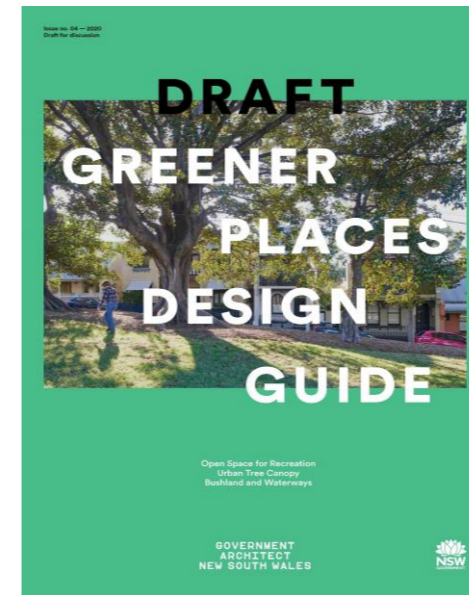
- **Healthy** for all members of our communities, promoting physical activity and walkable environments, social cohesion, and community safety and security to support people's well-being.
- **Responsive** to the needs and aspirations of local people, now and into the future, inviting innovative use and habitation, interaction, productivity and enjoyment.
- **Integrated**, by drawing together the relationships between parts and elements, considering interfaces at multiple scales, and working to common goals and aspirations.
- **Equitable** by presenting opportunities for all segments of our community so residents and visitors have access to and can move about freely between public domain, infrastructure, open space and buildings.
- **Resilient** to the dynamic, challenging conditions of our time, to adapt and evolve while retaining essential qualities and values.



Greener Places June 2020

Greener Places is an urban green infrastructure design framework for NSW. It focuses on Introducing, Creating and Implementing Greener Places. Greener Places explains why green infrastructure is needed, and the vision and principles for its implementation.

- Tree-lined streets
- Green infrastructure network



Draft Greener Places Design Guide June 2020

The Draft Greener Places Design Guide supports the Greener Places framework and provides strategies, targets and recommendations for green infrastructure. The best-practice guide is shaped around the following keys areas and the benefits they provide:

- Open Space for Recreation
- Urban Tree canopy
- Bushland and Waterways.

3.0 URBAN DESIGN FRAMEWORK

3.1 VISION

The Nepean Business Park (NBP) will revitalise an old quarry located on the edge of the Penrith CBD to create a modern, hi-tech, green-friendly centre for SMEs in a high-growth area of Western Sydney. It will provide significant local employment opportunities in a restored and contemporary landscape setting that engages with its river context and industrial neighbours and enhances the natural environment of the locality.

In line with the project's community and environmental focus, the business park will be complemented by the landscaped walk and cycle path of the expanded Great River Walk and will include expansive green spaces for recreation and leisure. Safe paths shaded by trees and access to a cafés, facilities and services will all create a highly accessible and appealing place for work and recreation, connected to open space.

It is envisaged the employment precinct will accommodate a range of small scale industry, warehouse and/or service uses. The following uses are considered:

- Service industry use; including facilities or services to meet the day to day needs of workers in the area.
- Small scale wholesale use; and
- Small scale manufacturing use.



FIGURE 3.1 ARTIST IMPRESSION OF STREETScape ALONG MAIN CONNECTING ROAD

3.2 CONTEXT AND CONNECTIONS

The site is adjacent to the North Penrith industrial area, with an existing access off Lugard Street. It has a wide frontage along Old Castlereagh Road that borders the Sydney International Regatta Centre and the tourism precinct to its north (see Figures 3.2). The site is bordering open space to its west and south west, it has an immediate connection to the Nepean River.

In the context of the Penrith Lakes SEPP area, NBP is the only employment zoned land and is located on its south eastern fringe, which is more visually and geographically connected to the adjacent north Penrith industrial area and Penrith CBD.

NBP is well connected by roads and within close proximity to public transport such as bus and train, as well as cycling and walking i.e. Great River Walk and Great West Walk.

Penrith City Council has made a strong commitment to delivering the Great River Walk in the Penrith city area through its 'Our River' master plan, with some ten kilometres of new and upgraded paths creating a recreational bridge-to-bridge walking and cycling loop between the M4 road bridge and the recently opened Yandhai Nepean Bridge, south of Victoria Bridge (see Figure 3.2)

Council is also about to commence a strategy for the delivery of a significant extension of the Great River Walk northward along the Penrith Lakes southern boundary, connecting Penrith to what will become a lake-based public parklands. The Nepean Business Park site will include a section of this walk.

Most recently the State Government has announced the establishment of the Great West Walk (GWW), a 65 km trail which will ultimately link Parramatta with the Blue Mountains, meeting the Great River Walk at the foot of the Castlereagh escarpment.

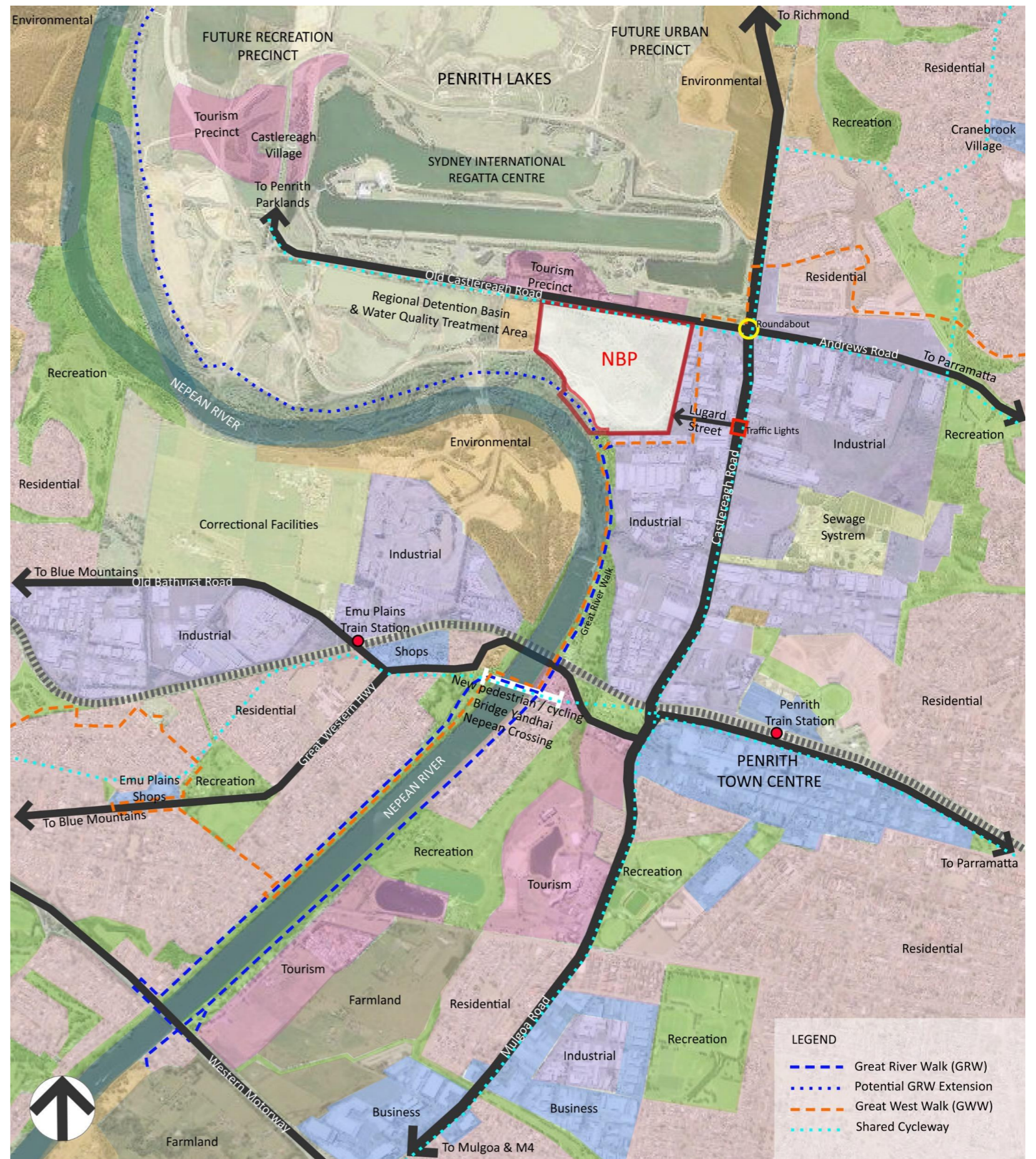


FIGURE 3.2 CONTEXT & CONNECTIONS

3.3 SITE ANALYSIS

The site is surrounded by existing industrial area to its east and south, bounded by Old Castlereagh Road to the north, the site for the regional detention basin & water quality treatment plant to its west, and the Nepean River to its south-west. The site is screened from Old Castlereagh Road by a landscaped embankment with existing rows of trees. There is a visible presence of the mountain backdrop to the west.

In the past, the site was used for extraction and processing of sand and gravel materials that included a system of tailing ponds. Today, the site is being capped and levelled and this rehabilitation work will continue progressively throughout the development stages.

Set out in the following pages are a series of annotated photographs illustrating the site and its surrounding context.

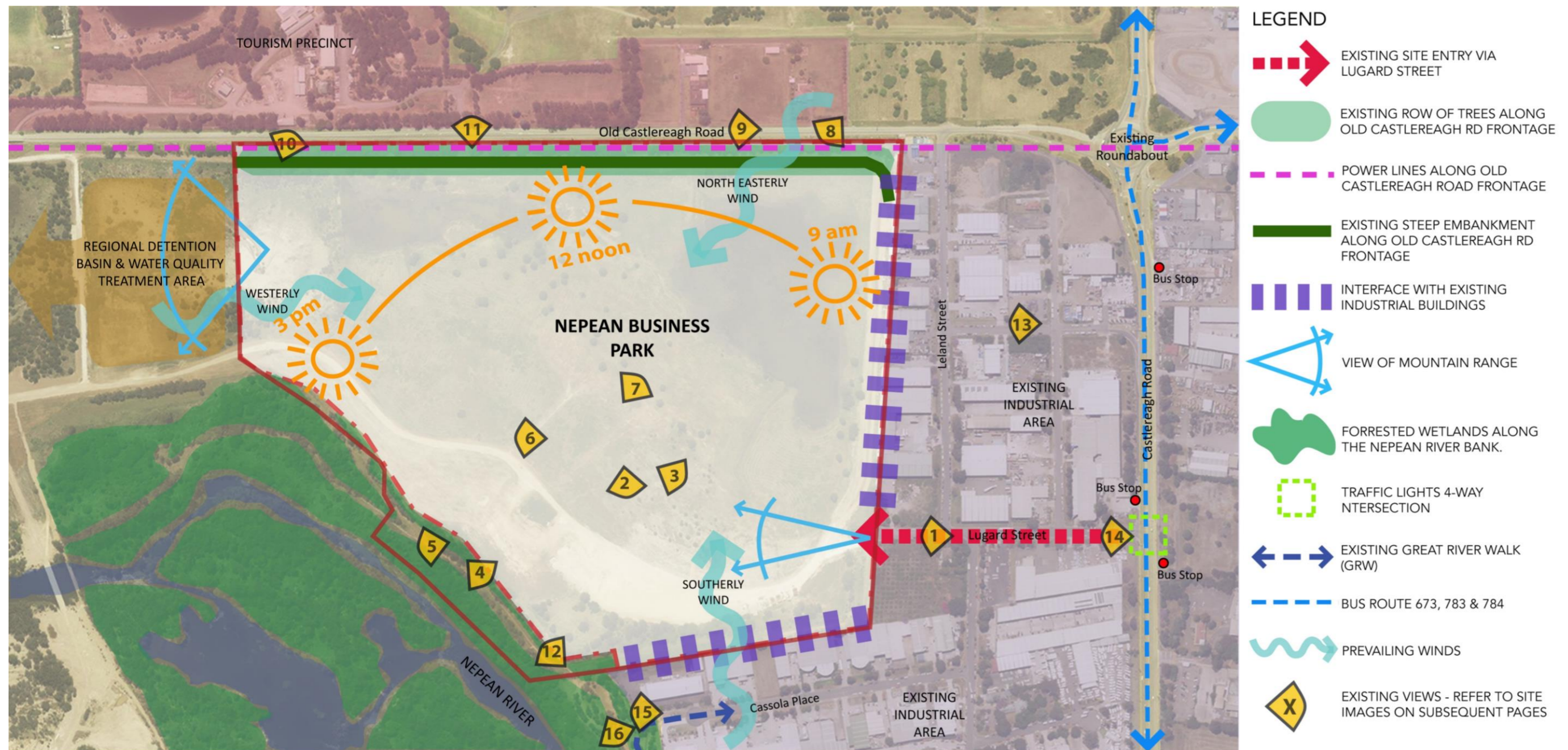


FIGURE 3.3 SITE ANALYSIS



PIC 1. LOOKING WEST FROM LUGARD ST TOWARDS SITE & MOUNTAINS



PIC 2. INTERNAL VIEW OF THE SOUTHERN BOUNDARY



PIC 3. VIEW OF LUGARD ST ENTRY & THE EASTERN SITE BOUNDARY



PIC 4. EXISTING INFORMAL WALKING TRAIL ALONG RIVERBANK



PIC 5. VIEW OF NEPEAN RIVER FROM THE WALKING TRAIL



PIC 6. VIEW FROM SITE TOWARDS WESTERN BOUNDARY



PIC 7. VIEW FROM SITE TOWARDS NORTHERN BOUNDARY



PIC 8. ROWS OF TREES & EMBANKMENT ALONG OLD CASTLEREAGH RD



PIC 9. VIEW OF OLD CASTLEREAGH ROAD LOOKING WEST



PIC 10. VIEW OF OLD CASTLEREAGH RD FROM THE TOP OF EMBANKMENT



PIC 11. ENTRY TO PLDC OFFICE / TOURISM PRECINCT



PIC 12. INFORMAL WALKING TRAIL ALONG THE SOUTHERN END OF SITE



PIC 13. INDUSTRIAL BUILDINGS ON LELAND ST, SEEN FROM GORDON ST



PIC 15. VIEW OF THE NORTHERN END OF THE GREAT RIVER WALK



PIC 16. EXISTING GREAT RIVER WALK



PIC 14. STREETScape & INDUSTRIAL BUILDINGS ON LUGARD STREET

3.4 SITE CONSTRAINTS

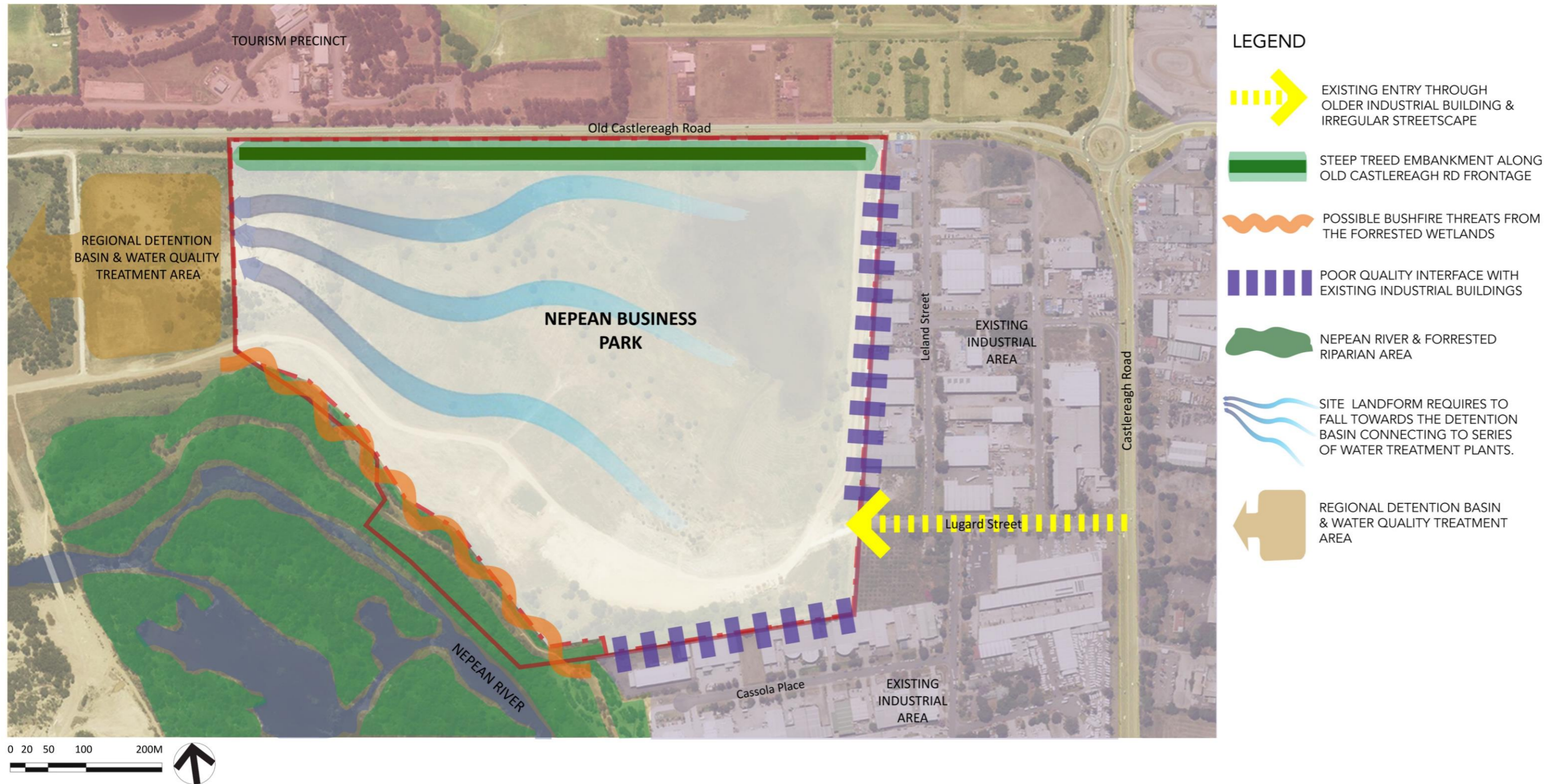


FIGURE 3.4 CONSTRAINTS DIAGRAM

3.5 SITE OPPORTUNITIES

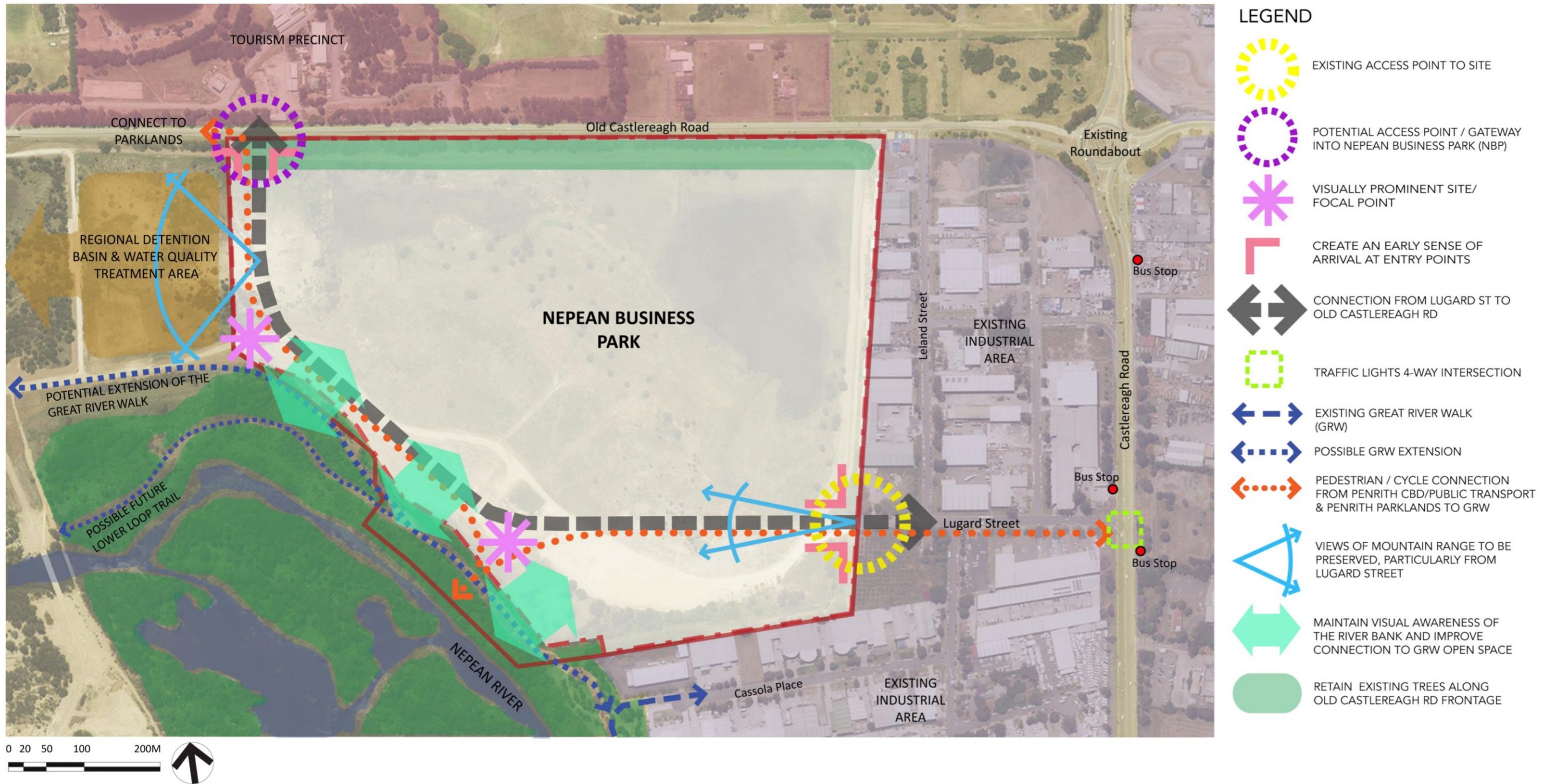


FIGURE 3.5 OPPORTUNITIES DIAGRAM

4.0 URBAN DESIGN CONCEPT

4.1 DESIGN OBJECTIVES

The objectives of this Urban Design Study are generally described below and in greater detail in the following chapters.

- To create a vibrant and connected employment precinct that is an extension of the North Penrith Industrial area which will provide local employment opportunities in a restored and contemporary setting;
- That the new development is well integrated into and complements its context;
- To promote best practice in the design of precincts and individual buildings, that engages with its both its industrial neighbours and its river context, and enhances the natural environment of the locality;
- Establish the new business park based on the SEPP's objectives in a landscape setting that relates to the adjacent industrial precinct.
- Create connections to Penrith city centre and tourism/ recreational amenities to the north.
- Allow for efficient small lot development to attract high-value small businesses.
- Allow for flexibility of design to respond to changing market requirements and enable businesses to react to change that is happening with ever-increasing velocity.
- Enhance the experience for all those that use the development through establishing connections to the distinctive attributes of the place.
- Create new entries off Old Castlereagh Road and Lugard Street that create a sense of arrival and a new 'front door' to the precinct.
- Ensure that landscape ties in the whole development with high quality landscape treatment, focused along the front boundaries of each allotment and throughout the public domain and streetscapes.
- Ensure a high-quality development with unique identity through quality building presentation and landscaping.
- Create a focal point and activity hub for the new development.
- Create appealing riverside amenity and facilities that will attract and retain workers, and provide for users of the Great River Walk.
- Create pedestrian and cycle links to Greater Penrith.
- To maintain significant views, in particular the western view corridor from Lugard Street to the distant mountain range.
- Create visual awareness of the Nepean River through the improvement of the Great River Walk and its connection to the Nepean Business Park.
- To ensure that development is informed by an understanding of Country, with respect to its Aboriginal and European heritage.



FIGURE 4.1 ARTIST IMPRESSION OF FUTURE CHARACTER OF NEPEAN BUSINESS PARK

4.2 THE MASTER PLAN

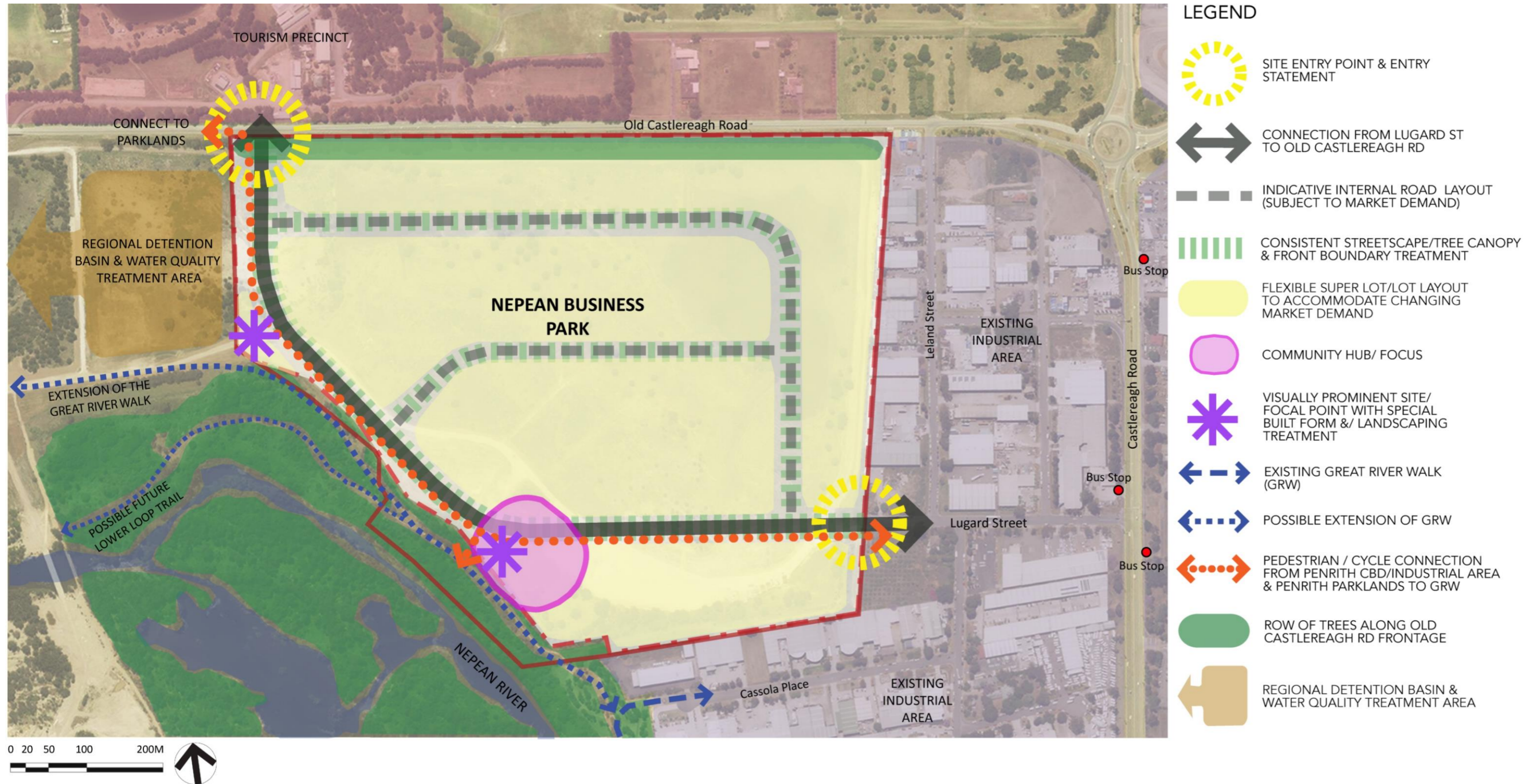


FIGURE 4.2 NBP MASTER PLAN

4.3 URBAN DESIGN EXCELLENCE STRATEGY

SITE PLANNING

- Responsive site planning to provide employment for people into the future with flexible lot layout to support various employment uses and response to market demand. The public domain and amenities designed to provide facilities & services in accordance with the SEPP.
- Integrated access, views to the Blue Mountains and connections to and along the Nepean River by locating access points into the site that serve employment access as well as access to the public open space.
- Defined gateways with entry statements that enhance a sense of arrival.
- Creation of a focus / an activity hub for the development, integrated into the public open space.
- No direct access to individual lots from Old Castlereagh Road.

CONNECTIVITY

- A new connection between Lugard Street and Old Castlereagh Road.
- Improve visual and physical connection to the Nepean River and the Great River Walk.
- Promote safe walking and cycling through the Nepean Business Park by clearly defined industrial and public access.
- Promote a healthy community by providing opportunity for physical activity i.e. walking & cycling by extending the Great River Walk along the Nepean River as well as through site connections and links to surrounding precincts.
- Equitable opportunity for the community by opening up an inaccessible site with new streets and public connections with free movement between public domain, infrastructure, open space and buildings.
- Promoting the 30-minute city.
- Integrate with and connect to the existing North Penrith Industrial estate.

SENSE OF PLACE

- Maintain identified vistas to Nepean River and the mountain range from Lugard Street and Old Castlereagh Road..
- Improve visual awareness and connection to the Great River Walk
- Creation of a community focal point.

LANDSCAPE & OPEN SPACE

- Landscape as a major defining character of Nepean Business Park, particularly by use of street tree plantings.
- Streetscape with consistent landscape treatment.
- Distinctive and usable public open space integrated with the Nepean River to be provided for the enjoyment of workers and visitors.
- Resilient landscape design by providing urban tree canopy throughout the public domain to mitigate climate change, improves air quality by removing fine air particles from the air, provides habitat, reduces ambient temperatures and mitigates the urban heat island effect.
- Focus all landscape canopy trees to lot frontages and streetscape to shade hard-stands, roads and heat sinks.
- Minimise hardstand areas.

BUILT FORM

- Contemporary and high-quality building presentation to street frontages, in a landscaped setting.
- Built form addresses the Great River Walk and Old Castlereagh Road frontages.
- Encourage active street frontage with defined building entry.
- Well-modulated and articulated buildings to reduce blank and bulky appearance

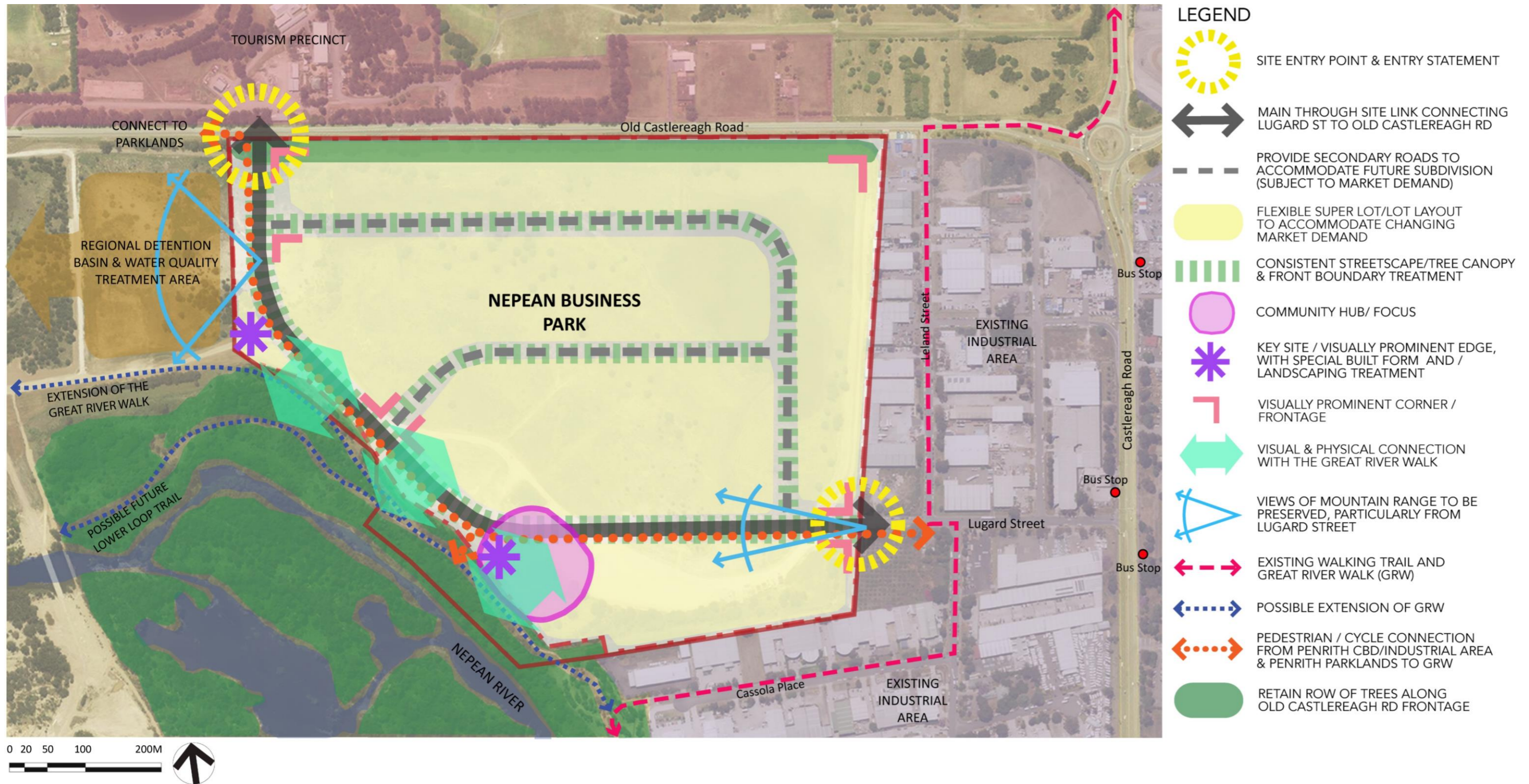


FIGURE 4.3 URBAN DESIGN PRINCIPLES

4.4 PUBLIC DOMAIN PRINCIPLES



ENHANCING

- It respects the needs and aspirations of the community that lives and works there
- It creates opportunities for people to prosper and local businesses to thrive
- It sustains and enhances the natural environment



CONNECTED

- It is well connected to surrounding areas
- You can see where you are and where you are going
- There is a range of transport options, including public transport, walking and bicycling



DIVERSE

- There is a range of facilities, services and activities
- Despite the diversity, there is an overall harmonious blend
- You can take different routes depending on your mood, or if you're visiting different places on your way



ENDURING

- It is visually and aesthetically pleasing as well as practical
- It is well maintained and cared for
- It is designed to save resources like water, energy and materials, and minimises its impact on the environment



COMFORTABLE / SHADING

- It feels comfortable to walk through, sit, stand, play, talk, read, or just relax and contemplate
- It is not too exposed to unpleasant noise, wind, heat, rain, traffic or pollution
- Trees providing shade and creating 'cool room'
- Mitigate Heat Island impacts through optimised urban tree canopy cover



VIBRANT

- You can see that there are other people around
- People are enjoying themselves and each other's company
- There are places to meet and interact, play, explore, recreate and unwind



SAFE

- It feels safe and secure, even at night or on your own
- There aren't signs of decay such as graffiti, rubbish, weeds or derelict buildings and places
- Roads and paths are safe for adults and children to walk or ride their bikes



WALKABLE / CYCLABLE

- It prioritises people walking or riding before vehicles
- It is easy to get around on foot, bike, wheelchair, pushing a pram or wheeling luggage
- It encourages physical activity and social interaction, and promotes a healthy lifestyle



IMAGE 4.5.1 VIEW OF THE DISTANT MOUNTAIN RANGE FROM THE EMPLOYMENT LAND.

4.5 VIEWS & VISTAS

The site analysis identified a key view corridor from Lugard Street to the Nepean River and the Blue Mountains.

In general, the view backdrop to the mountain range is to be maintained where possible, in particular from the Lugard Street entry.



IMAGE 4.5.2 VIEW WEST ALONG OLD CASTLEREAGH ROAD OF THE MOUNTAIN RANGE

4.6 CONNECTIVITY

- Defined entry points with entry statements that enhance a sense of arrival.
- Provide a connector road from Lugard Street entry to Old Castlereagh Road entry.
- Provide a pedestrian / cycle through site link from Lugard Street to Old Castlereagh Road.
- Incorporate cycle paths using the site circulation along the connector road.
- Provide safe public paths adjoining all roads in the site.
- Provide a continuous GRW path connection to the site from the south along the south western perimeter.
- Ensure streets are capable to cater for large industrial vehicle movement, as well as cater for safe and clear pedestrian/cycle movement.
- Signage are incorporated for ease of wayfinding.



FIGURE 4.6 ARTIST IMPRESSION OF ENTRY TO NEPEAN BUSINESS PARK FROM THE GREAT RIVER WALK

4.7 LANDSCAPE STRATEGY

- Enhance the landscape character with strong landscape connection through site, including maintaining planted setbacks to river and road, and consistent street tree planting to all public roads.
- Maintain existing view corridor to the Blue Mountains from Lugard Street.
- Enhance the landscape character along Old Castlereagh Road frontage.
- Create a cooling micro-climate through landscaping and continuous tree canopies
- Provide a generous landscaped setback along the frontage of individual development lots.
- Integrate a strong urban canopy throughout the public domain / streetscape.
- Capitalise on the strong landscape character of the Great River Walk
- Reinforce locally native planting character and vegetated links to the local landscape.



FIGURE 4.7.2 REINFORCE NATIVE PLANTING CHARACTER ON PUBLIC OPEN SPACE



FIGURE 4.7.1 RETAIN ROW OF TREES ALONG OLD CASTLEREAG ROAD FRONTAGE



FIGURE 4.7.3 CONNECTED LANDSCAPED PUBLIC OPEN SPACE

4.8 STREETScape & FRONT BOUNDARY TREATMENT

4.8.1 STREETScape

- Retain row of trees and improve the landscape treatment along Old Castlereagh Road.
- Continuous street tree canopy along all public roads to cool heat sinks.
- Maintain existing view to the Nepean River & to the Blue Mountains from Lugard Street
- Entry Signage to be consistent throughout the development.

4.8.2 FRONT BOUNDARY TREATMENT

- Create a landscaped interface along the Great River Walk and Old Castlereagh Road frontages.
- Consistent boundary / perimeter treatment i.e. fencing, gates, hedging, entry piers.
- Front fencing to be complemented by planting.
- Focus on-lot landscaping to street frontage to cool heat-sinks

4.8.3 SIGNAGE

- Signage concepts are in development for the site, refer to the main entry and secondary signage examples below.



FIGURE 4.8.3 CONSISTENT TREATMENT OF ENTRY SIGNAGE



FIGURE 4.8.1 CONTINUOUS STREET TREE CANOPY ALONG INTERNAL ROADS



FIGURE 4.8.2 LANDSCAPED FRONT BOUNDARY TREATMENT (Silverwater, NSW)

4.9 OPEN SPACE & GREEN INFRASTRUCTURE

4.9.1 PUBLIC OPEN SPACE

- Provide public open space on the site's south western boundary that incorporates the GRW and the Nepean River frontage.
- Provide safe walking and cycle access through the site.

4.9.2 GREEN INFRASTRUCTURE

- Create a green infrastructure network throughout the estate
- Concentration of tree canopy to road frontages to provide shading and reduce urban heat island impacts.
- Focus strongly on trees and shrubs that are endemic to the locality and river landscape
- Ensure trees to the south west and north of the site are protected and enhanced where appropriate.

4.10 TREE CANOPY

- Demonstrate contribution to the tree canopy cover target in the Greater Sydney Plan.
- Consideration should be given to locally endemic species, however a balance of locally native trees and other Australian natives to optimise ecological values and heat island impact mitigation may be needed. Also refer to Council's Street and Park Tree Management Plan for species selection.
- In general, denser canopies will have more heat island mitigation impact (ie. reduction in ambient temperature), but many native species such as Eucalyptus typically have more open canopies.
- A combination of large and small tree species i.e. larger species give structure and smaller species are arranged with a different species in each street to assist with sense of place and wayfinding.
- Use of larger tree canopy species at the lot boundaries where they should not be impacted by varied locations of lot driveway entry and exit locations.
- Use of larger and smaller tree species (of moderately fast growth and relatively dense canopies) across lot frontages at relatively close centres to achieve early heat mitigation.
- Given the need to accommodate large trucks on site, suitable large species will need to be carefully located and have larger clear trunk heights at maturity to avoid damage to trucks and trees.
- By incorporating trees of different heights, the shadows cast during morning and afternoon are different lengths thereby spreading out the 'footprint' of shade.



FIGURE 4.9 LANDSCAPED OPEN SPACE & PEDESTRIAN & CYCLE CONNECTIONS

4.11 PRIVATE PATHWAY, DRIVEWAY, PARKING AND LOADING AREA

- Entry & loading areas to be of robust materials and finishes, and fit for purpose.
- Minimise hardstand, including driveway area, to reduce heat load.
- Materials for driveway / outdoor parking area are to be coordinated with the landscaping of the lot and fit for purpose.
- Cross-over finish will be matt broomed concrete similar the Council's footpath, so as not to attract any attention.
- Pathways are provided/marked from the front boundary to the building entry.
- Separation of customer parking and loading area, where practicable.
- Incorporate suitable landscaping into the driveway / parking / loading arrangement to assist in reducing heat load.
- Loading areas are to be screened from view from any public / communal open space where practicable.



FIGURE 4.11.2 LANDSCAPED PATHWAY, DRIVEWAY & PARKING / LOADING AREA
(Source: Newington Business Park – JLL Property)



FIGURE 4.11.1 LANDSCAPED PRIVATE DRIVEWAY & PARKING AREA
(Source: Newington Business Park – www.au.goodman.com)



FIGURE 4.11.3 LANDSCAPED PATHWAY, DRIVEWAY & PARKING / LOADING AREA
(Source: Trinita Business Park – Stockland)

4.12 COMMUNITY HUB - SERVICES & FACILITIES

The Community Hub will provide services and facilities to meet the day to day needs of workers in the area, set in landscaped setting with open space, plazas and will include food outlets, cafes, minimarket, service retail, work spaces, etc with easy access and connection to the Great River Walk. It will provide the opportunity to create a focal point, a place to meet, as well as servicing visitors from the Great River Walk.

As all proposed Hub uses are permitted under the SEPP, the extent of the Hub will be created by market demand.

Community Hub Objectives

- To create a destination within the development which will be a focus for people working within the site.
- To provide Penrith with a unique place /series of places with local character;
- To promote commerce, creativity, and community;
- To achieve design excellence through the integration of architecture, urban design and landscape design;
- To cluster uses which will create a vibrant focal point;
- To encourage and promote local businesses;
- To provide uses which will attract people to the development;
- To connect to the Nepean River and the Great River Walk;



FIGURE 4.12 1 INCORPORATE INFORMAL MEETING PLACE CONNECTING TO GREAT RIVER WALK
(Source: Triniti Business Park – Stockland)



FIGURE 4.12.2 ARTIST IMPRESSION OF THE COMMUNITY HUB CAFE WITH GREAT RIVER WALK IN THE BACKGROUND



FIGURE 4.13 ARTIST IMPRESSION OF STREETScape AND BUILT FORM CHARACTER

4.13 BUILT FORM

- High quality contemporary buildings that address the street frontages.
- Generous street tree plantings and landscaped street setbacks to allow for buildings to be situated in a landscaped setting.
- Building entry is to be defined and clearly visible from street frontage.
- Activate street frontage whenever possible i.e. office component should overlook the street.
- Buildings to address Old Castlereagh Road and the Great River Walk.
- Special attention to high-visibility key sites, which set the tone for the development.
- Utilising sun shading elements.
- Break-up long & bulky buildings by incorporating modulation and articulation.
- Blank facades to be broken up by variation in material, texture, or colour.



FIGURE 4.14 MODULATED AND ARTICULATED BUILDINGS AND APPROPRIATE MATERIALS & FINISHES REINFORCE THE NBP CHARACTER
(Source: Newington Business Park – www.au.goodman.com)

4.14 MATERIAL & FINISHES

- Reinforce the character of the whole development through selection of appropriate building materials & finishes.
- Promote colours which blend with the natural environment, i.e. predominantly soft-natural / earthy tones. Bright / dominant colours are allowed as accent / feature element.
- Consider environmental sustainability in the selection of building material & finishes and apply passive/energy saving principles.
- Low-reflective material is to be used on facades and walls. High reflective material can be used on flat roofs to reduce heat load.
- Roofs typically are of metal sheeting or other as appropriate.
- Face bricks are to be mono chromatic, otherwise brick walls are to be rendered and painted.

4.15 INFRASTRUCTURE & SERVICES

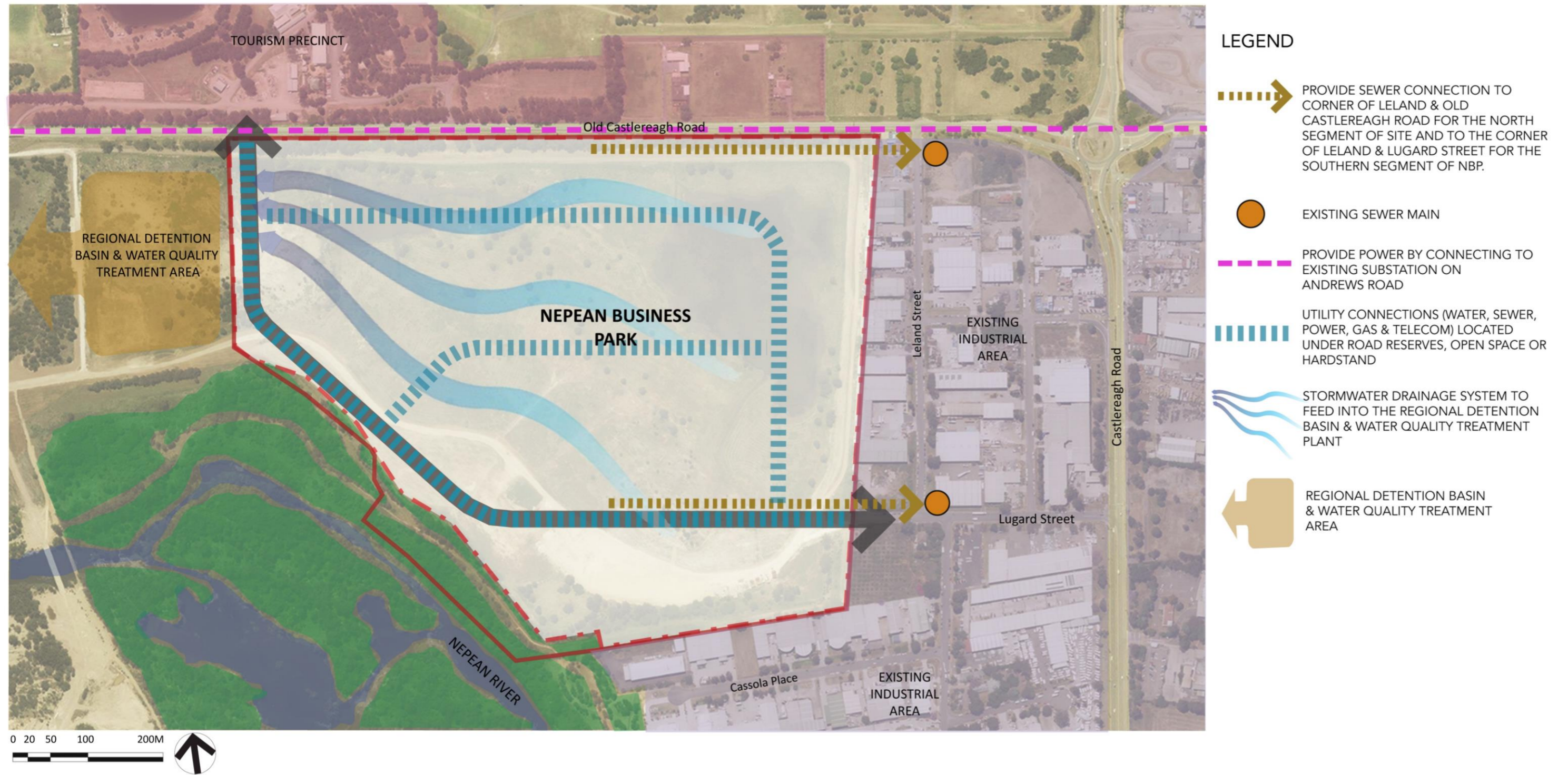


FIGURE 4.15 INFRASTRUCTURE DIAGRAM

4.16 PHASING OF THE DEVELOPMENT

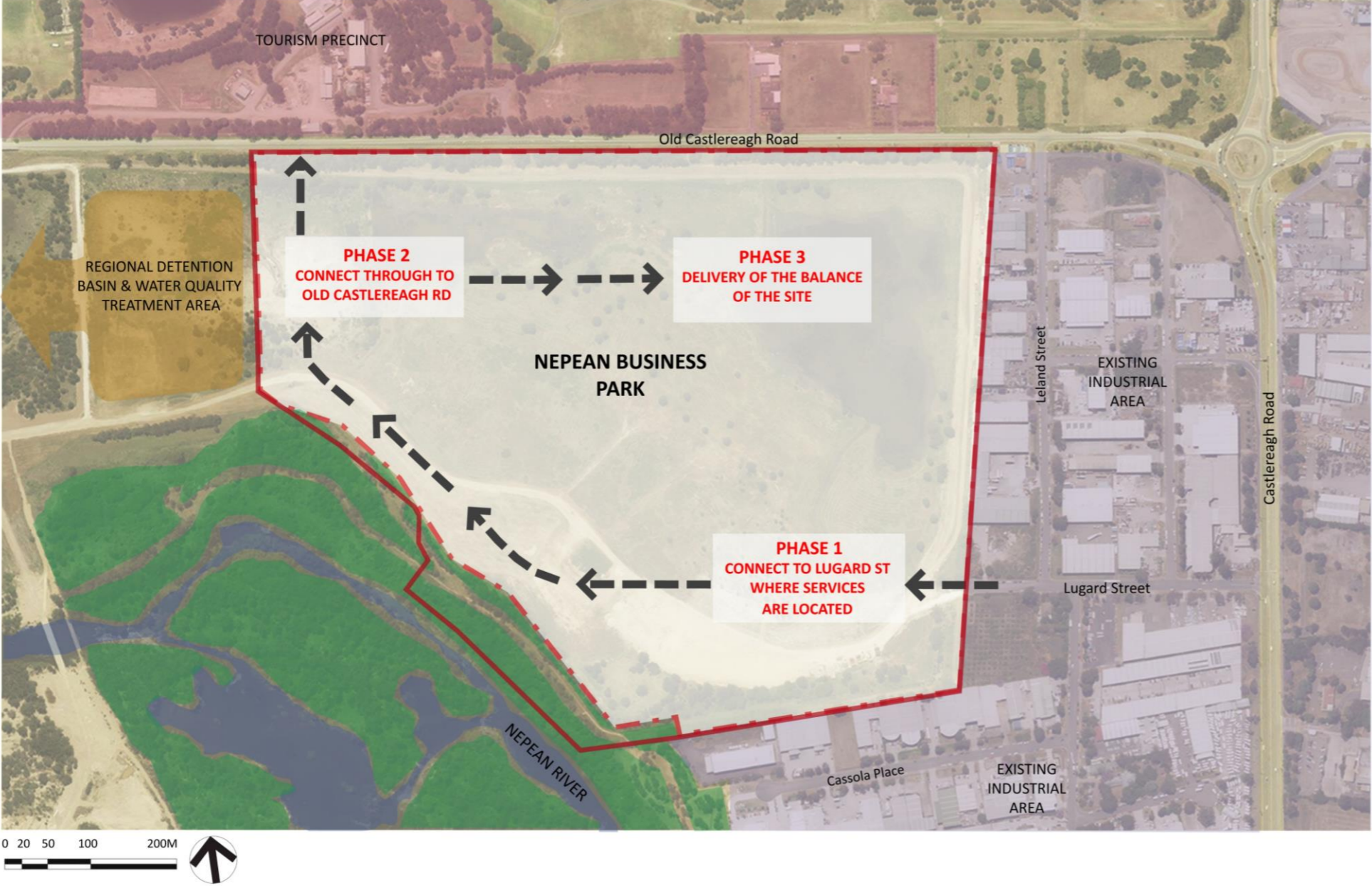


FIGURE 4.16 PHASING DIAGRAM

- Phasing of the development shall be orderly and incremental, generally progressing from the south-east to the north west, then to the east; in thirteen distinct phases.
- It is envisaged that public open spaces will be built progressively; relating to increases in demand and growth in population density.
- Lot layout to support various employment uses and a mix of typologies in line with market demand.
- Road and lot layout enables the staging of development which will naturally begin at the Lugard Street Entry and work its way towards Old Castlereagh Road, and finally the balance of the site.
- Provide maximum flexibility for land subdivision in varying size and dimensions to satisfy market demand.

5.0 DEVELOPMENT APPLICATION

5.1 SITE PLANNING CONSIDERATIONS

The following site specific issues informed the site planning of the current DA proposal.

Stormwater Drainage

The site is required to drain to the West into the Penrith Lakes system where water is required to maintain lake levels. This is in accordance with the Penrith Lakes Water Management Plan (WMP) as endorsed by the secretary of DPIE in accordance with the SEPP. The endorsement of this WM Plan was a SEPP requirement prior to a DA being approved.

Additionally, there are drainage constraints that restrict draining stormwater to the east, north and south so the whole site is designed to drain to the west to a pre-determined, nominated level. The land effectively needs to be formed to allow stormwater to drain by gravity to the west.

After several design iterations, several meetings took place with DPIE staff in the strategic planning team and the DA assessment team regarding the stormwater drainage and the subdivision layout.

A series of meetings were also held with Penrith Council who will be the end owner of the roads and stormwater infrastructure. Penrith Council reviewed the drainage options and settled on a solution for all stormwater to drain at low gradients to the Southern Wetlands, which has resulted in the current landform designed to minimise site levels at the eastern end.

Road Network

The Lugard St extension road evolved in consultation with DPIE over 2019 and 2020 where it was advised that there must be a road along the Nepean River frontage to provide security and surveillance. Various sketch options were tabled for consideration, and the current plan reflects the proposed layout proposed by DPIE. Whilst a different layout was favoured by the Owners of the site, they ultimately agreed to the DPIE suggestion, and this is reflected in the Urban Design Concept and the DA plan. Thereafter the internal road layout follows the drainage pattern to the West.

Lot Size

Small lots are proposed in the DA to match market demand and to create local employment opportunities and to attract small business – the biggest generator of GDP in Australia.

Small lot sizes will also assist in meeting the objectives of the SEPP - which are to encourage employment by facilitating job opportunities, which typically arise out of small business.

5.2 NBP DESIGN RESPONSE

The NBP proposal embodies the principles of high quality urban design and will enable desired outcomes to be realised, as outlined in the following documents:

Better Placed May 2017

- **Healthy**
The NBP proposed extension of the Great River Walk along the Nepean River as well as through site connections and links to surrounding precincts provides opportunity for walking and cycling thereby promoting physical activity.
- **Responsive**
The NBP provides local employment that reduces travel time, carbon emissions and promotes family time add healthier lifestyle long into the future and the river walk will provide a connection for interaction and enjoyment of the natural & built environment.
- **Integrated**
The NBP considers its surrounds by integrating access, views to the Blue Mountains and connections to and along the Nepean River
- **Equitable**
The NBP offers opportunities for all segments of our community so residents and visitors have access to and can move about freely between public domain, infrastructure, open space and buildings.
- **Resilient**
The NBP proposes native trees planted in soil networks with ample soil volume to create the thriving urban tree canopy necessary to mitigate climate change, improves air quality by removing fine air particles from the air, provides habitat, reduces ambient temperatures and mitigates the urban heat island effect.

Greener Places June 2020

The NBP proposal is in alignment with the key aims of Greener Places including:

- creating a healthier, more liveable, and sustainable urban environment by improving community access to recreation and exercise;
- supporting walking and cycling connections;
- improving the resilience of urban areas.

Draft Greener Places Design Guide June 2020

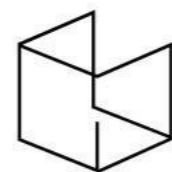
The NBP proposal provides many of the benefits outlined in the Design Guide including:

- Space where people can relax, exercise, play and enjoy our natural heritage
- Canopy trees that provide shade and shelter, improve air quality, absorb carbon and rainfall, cool the local environment and support wildlife. The proposed trees will contribute by making the urban areas more attractive, provide seasonal variation and create memorable landmarks.
- Enhanced bushland along the Nepean riverfront will provide habitat for wildlife, mitigate the impacts of climate change and improve air quality.
- Areas for the creation of a Community Hub and focal points within the development, which provide services and facilities for workers, visitors as well as a destination for the local and broader community using the Great River Walk. These areas are located adjacent to Nepean River reserve and the Great River Walk as well as adjoining the main access road.



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