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**ATTACHMENTS DISTRIBUTED UNDER SEPARATE COVER**

**ITEM-14 CCL 26/03/19 - SIX MONTH PERFORMANCE REPORT ON THE 2018-2022 DELIVERY PROGRAM**

**Attachment A** - Six Month Performance Report on the Delivery Program 2018 - 2022

**ITEM-20 CCL 26/03/19 - ADOPTION OF AMENDMENT TO NEWCASTLE DCP 2012 SECTION 6.02 HERITAGE CONSERVATION AREAS**

**Attachment A** - Draft Section 6.02 Heritage Conservation Areas (for adoption)  
**Attachment B** - Draft Section 6.02 Heritage Conservation Areas (for exhibition)  
**Attachment C** - Court Case Extract Nisbet v Newcastle City Council  
**Attachment D** - Comparison of definition changes from the Heritage Technical Manual September 2014, Review of HCAs Final Report June 2016 and Draft Section 6.02 HCAs (for exhibition)

**ITEM-21 CCL 26/03/19 - 233 WHARF ROAD AND 150 & 150A SCOTT STREET NEWCASTLE - ENDORSEMENT OF AMENDMENT TO NEWCASTLE LEP 2012**

**Attachment A** - Planning Proposal – 233 Wharf Road, 150 and 150A Scott Street Newcastle - Proposed Amendments to Newcastle Local Environmental Plan 2012

**ITEM-22 CCL 26/03/19 - FORT WALLACE, STOCKTON - ADOPTION OF AMENDMENT TO NEWCASTLE LEP 2012 AND NEWCASTLE DCP 2012 SECTION 6.15**

**Attachment A** - Planning Proposal - Fort Wallace, Stockton  
**Attachment B** - Section 6.15 - Fort Wallace, Stockton  
**Attachment C** - Community consultation – Summary of submissions



**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
SIX MONTH PERFORMANCE REPORT ON THE 2018-2022 DELIVERY  
PROGRAM**

**Attachment A: Six Month Performance Report on the 2018-2022  
Delivery Program**

**DISTRIBUTED UNDER SEPARATE COVER**



# Six Monthly Performance Report

December 2018



[newcastle.nsw.gov.au](http://newcastle.nsw.gov.au)



City of  
Newcastle

## Acknowledgment

City of Newcastle acknowledges that we are meeting on the traditional country of the Awabakal and Worimi peoples.

We recognise and respect their cultural heritage, beliefs and continuing relationship with the land, and that they are the proud survivors of more than two hundred years of dispossession.

Council reiterates its commitment to address disadvantages and attain justice for Aboriginal and Torres Strait Islander peoples of this community.

## Enquiries

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### Smart Organisation

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### Special Rate Variation Performance

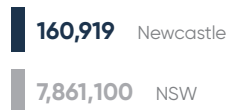
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# Snapshot of our City



## Our People

### Population



### Aboriginal population



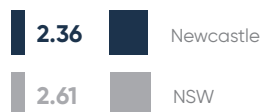
### Born overseas



### Median age



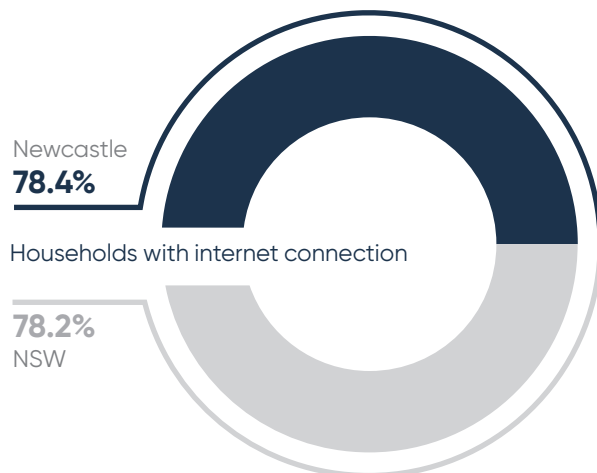
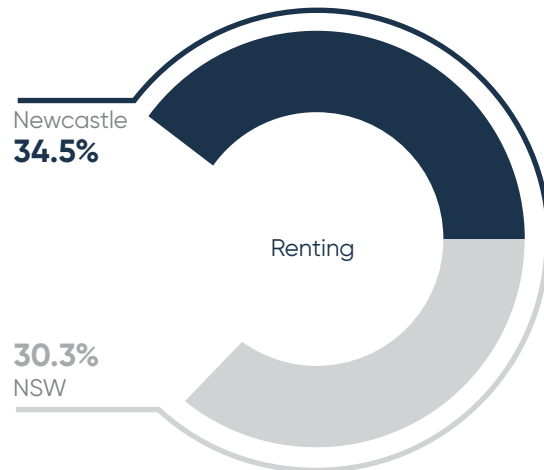
### Average household size



### Median weekly household income



### Median property price\*



\* Source: Domain, June 2018  
All other figures from 2016 Australian Bureau of Statistics Census





**187km<sup>2</sup>**

Total land area



**62,909**

Total number of residential houses



**12,129**

Total number of businesses



**850km**

Length of roads



**6**

Main beaches



**79km**

Length of creeks



**7**

Ocean baths and aquatic centres



**88**

Bushland parcels



**54**

Sporting amenities facilities



**97,428**

Street and park trees



**15**

Grandstands



**116**

Playgrounds



**9**

Skate facilities

An aerial photograph of a coastal breakwater extending from a rocky shore into the ocean. The sky is a soft orange and yellow, suggesting sunset or sunrise. The water is a deep blue with gentle ripples. A small white building is visible on the shore to the right of the breakwater.

**In 2030,  
Newcastle will be  
a smart, liveable  
and sustainable  
global city.**

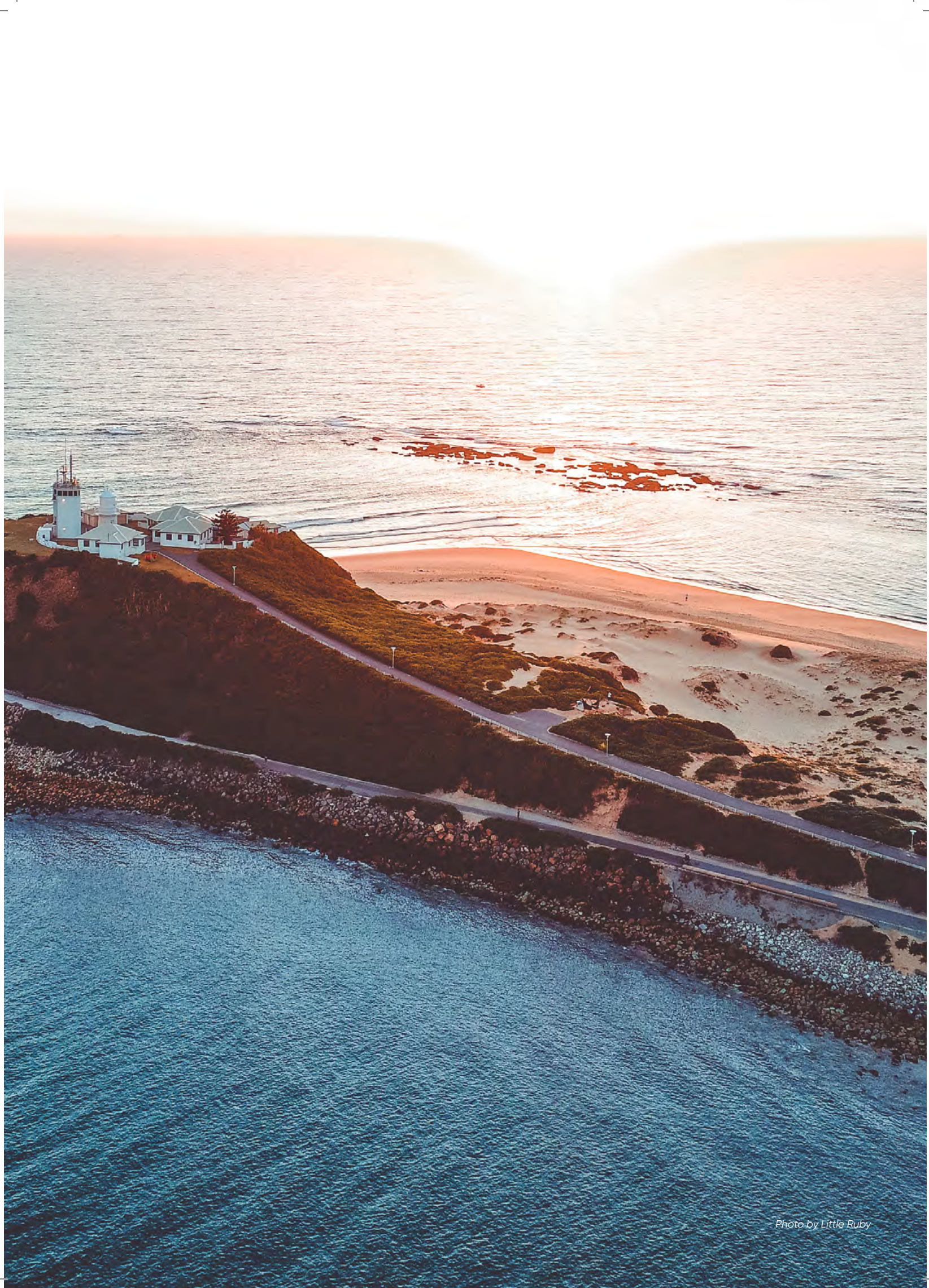


Photo by Little Ruby

# Who We Are

**City of Newcastle has two parts, but one shared voice:**

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**The elected Council and The administration.**

**City of Newcastle (CN) employs over 950 staff and is responsible for providing services and facilities to more than 160,000 people.**

## **Elected Council**

Twelve councillors and a popularly elected Lord Mayor make up the elected body of CN. The Newcastle Local Government Area (LGA) is divided into four wards, with each ward represented by three councillors who are elected for a four year term (however this term is only three years).

Under the *Local Government Act 1993*, councillors have a responsibility to:

---

Participate in the determination of the budget

---

Play a key role in the creation and review of our policies, objectives and criteria relating to the regulatory functions, and

---

Review our performance and the delivery of services, management plans and revenue policies.

A councillor represents residents and ratepayers, provides leadership and guidance to the community, and facilitates communication between the community and the organisation. Council meets every second, third and fourth Tuesday of the month from February to November and as required in December.

## **The Administration**

The Administration is organised into five groups, each with a range of responsibilities.

The Chief Executive Officer (CEO) leads the administrative arm of CN and is responsible for the efficient and effective operation of the business and ensuring that the decisions of the elected Council are implemented.

The CEO reports to the elected Council.

## The Administration



### Chief Executive Officer Executive Office

Jeremy Bath

---

#### CEO's Office

---

<b>Governance</b>	<b>Strategy and Engagement</b>	<b>People and Culture</b>	<b>Infrastructure and Property</b>	<b>City Wide Services</b>
Finance	Information Technology	Organisational Development	Depot Operations	Art Gallery
Legal	Major Events and Corporate Affairs	HR Operations	Assets and Projects	Museum
Regulatory, Planning and Assessment	Corporate and Community Planning	WHS and Injury Management	Civil Construction and Maintenance	Civic Services
		Training and Learning	Property and Facilities	Libraries and Learning
		Payroll		Customer Service
				Waste Services
				Parks and Recreation

## Elected Council



**Cr Nuatali Nelmes**  
Lord Mayor (Labor)



**Cr Emma White**  
(Labor)



**Cr John Mackenzie**  
(Greens)



**Cr John Church**  
(Independent)



**Cr Carol Duncan**  
(Labor)



**Cr Kath Elliott**  
(Independent)



**Cr Brad Luke**  
(Liberal)



**Cr Declan Clausen**  
Deputy Lord Mayor (Labor)



**Cr Andrea Rufo**  
(Independent)



**Cr Peta Winney-Bartz**  
(Labor)



**Cr Jason Dunn**  
(Labor)



**Cr Matthew Byrne**  
(Labor)



**Cr Allan Robinson**  
(Independent)

## Ward 1

Bar Beach, Carrington, Cooks Hill, Islington, Maryville, Mayfield, Mayfield East, Mayfield West, Newcastle, Newcastle East, Newcastle West, Stockton, The Hill, The Junction (part), Tighes Hill, Warabrook, Wickham

## Ward 2

Adamstown, Adamstown Heights, Broadmeadow, Hamilton, Hamilton East, Hamilton South, Hamilton North, Merewether, Merewether Heights, The Junction (part)

## Ward 3

Georgetown, Jesmond, Kotara, Lambton, New Lambton, New Lambton Heights, North Lambton, Wallsend (part), Waratah, Waratah West

## Ward 4

Beresfield, Birmingham Gardens, Black Hill, Callaghan, Elmore Vale, Fletcher, Hexham, Lenaghan, Maryland, Minmi, Rankin Park, Sandgate, Shortland, Tarro, Wallsend (Part)



# What We Do

**We are responsible for providing a wide range of community facilities and services. They include:**

---

Construction and maintenance of local roads, drains and bridges

---

Waste management and recycling

---

Assessing residential and commercial development applications

---

Parking strategy and enforcement

---

Maintenance of parks, sporting fields, pools and beach facilities

---

Lifeguard patrols at our beaches

---

Community and cultural facilities including libraries, Newcastle Art Gallery, Civic Theatre, the Playhouse, community centres and Newcastle Museum

---

Pet registration and animal control

---

Tourism and economic development

---

Child care

---

Strategic planning - our long-term planning

---

Community engagement about plans, services and facilities

---

Regulatory services

---

Events, licensing and production.

We are responsible for the construction and maintenance of around 3,500 kilometres of roads, footpaths, drainage, and kerbs and guttering. Many natural assets are our responsibility too, including 14 kilometres of spectacular coastline, almost 100,000 street trees and more than 400 parks, reserves and wetlands.

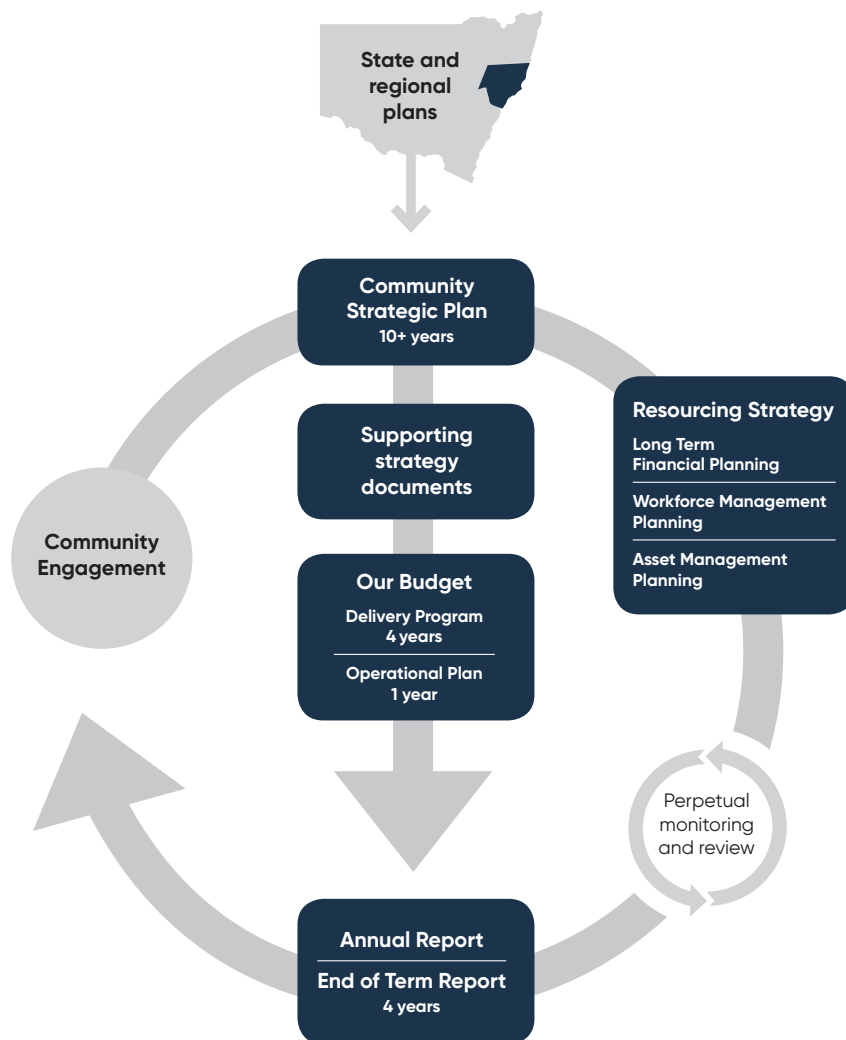
We work with local communities and business owners to improve the places we live, by supporting our business improvement associations, place making initiatives, murals in public places and other beautification projects.





# Why we do the six-monthly performance report

CN is required under section 404(5) of the Act to provide progress reports on the Delivery Program and Operational Plan (Our Budget) at least every six months. Our six-monthly performance report details CN's progress on the principal activities detailed in the Delivery Program within Our Budget.



## Reporting on our performance

The Six-Monthly Performance Report, along with the Annual Report are the key points of accountability between the CN and our community.

It is not a report to the Office of Local Government or the NSW Government; it is a report to our community on our performance against our Delivery Program Strategies.

Every six months, CN reports on the key activities it has undertaken which contribute to achieving our Delivery Program (Our Budget) and in the long term our Community Strategic Plan, Newcastle 2030.





Our Performance

# July–December 2018 highlights



**66,600**

Calls made to  
4974 2000



**Over  
3,890  
people**

Visited us at our  
customer counter

**Social  
media  
following**

 **17,274**

 **5,242**

 **7,603**



**\$28  
million**

spent on our capital  
works program

**\$1.4  
million**

spent on our special  
rate projects

**680**

Development  
Applications approved



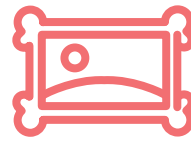
Value of Development  
Applications  
approved

**\$411  
million**

**113,182**

total tonnes into  
Summerhill Waste  
Management Centre

**Attendance**



**30,528**

Newcastle Art Gallery



**64,138**

Newcastle Museum



**54,190**

Civic Theatre/  
Playhouse



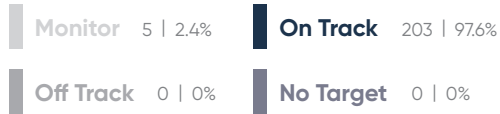
**13,400  
tonnes  
of waste**

diverted from  
landfill

Total initiatives

**98%**

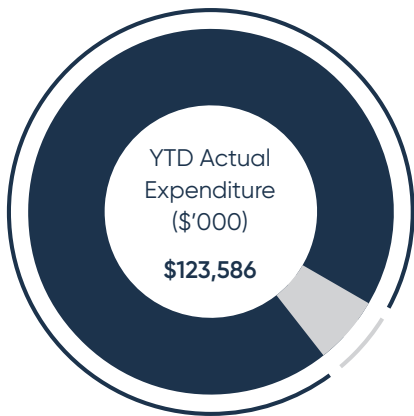
Of initiatives completed or on track



Total expenditure

**\$131,732**

YTD Budget ('000)



## Highlights

### Live Music Strategy

open for comment

### Beresfield local centre

is one of the first centres to be renewed in 2018 as part of CN's Local and Neighborhood Centres Program

Due for completion in March 2019

### Construction starts on Stockton playground

\$1.9 million playground and skate plaza precinct at Griffiths Park, Stockton

### Summerhill Solar Farm

Construction currently underway

### 5,300 Street lights

Currently being upgraded to LED

### Free flood alerts

now available across the city

### Coastal management plan

approved for Stockton

### City Hall ramp revealed

as part of the architectural jewel's external restoration

# Community satisfaction survey

Our second community survey is completed with another positive response. Around 800 people participated in the survey which will be conducted every three months to help inform the City's decision making and service provision. Here is a taste of the things you told us we are doing well and some areas where we need to improve. The full report with detailed results is on available on our website.



## Results highlights



- # We think our cultural institutions such as Civic Theatre, Newcastle Art Gallery and Newcastle Museum help promote our city and attract audiences
- # Newcastle is our top choice as a destination for enjoying the arts and culture
- # We feel Newcastle's cultural events and activities are making the city a creative place to live



- # Our top two community safety issues are Domestic Violence and Alcohol related anti-social behaviour and violence
- # We consider a lack of time, work or other commitments are barriers to participating in community life
- # Other challenges facing us include:
  - Access to public transport
  - Housing affordability
  - Community safety/security



# Integrated and Accessible Transport

**Transport networks and services will be well connected and convenient. Walking, cycling and public transport will be viable options for the majority of our trips.**

## Community Objective

1.1 Effective and integrated public transport

---

1.2 Linked networks of cycle and pedestrian paths

---

1.3 Safe, reliable and efficient road and parking networks

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## Our supporting Strategies and Plans

Newcastle Transport Strategy 2014

---

Newcastle Cycling Strategy and Action Plan 2012

---

Connecting Newcastle 2017

---

Disability Inclusion Action Plan 2016-2019

---

# Highlights of Integrated and Accessible Transport

## Transport

Level of service



**73% cleanliness of streets and public areas**

(very satisfied, satisfied or not concerned)



Park and Ride has taken

**26,000 cars off inner-city streets**

since its introduction in November 2017



**12% parking transactions**

paid by phone app



Cycling facilities are well maintained

**55%**

(very satisfied, satisfied or not concerned)

**13,000**

unique users of the EasyPark app

## Why do you cycle?



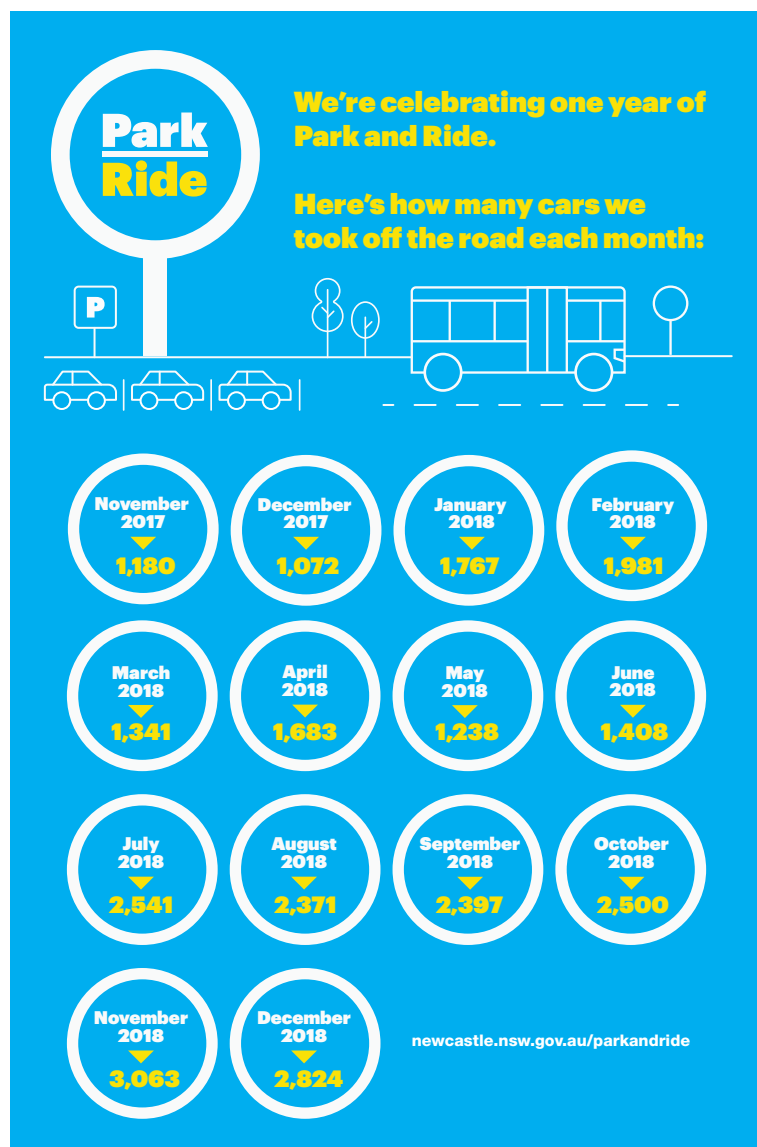
# What we did

## Successful smart parking app to expand

The success of the Easy Park pay by phone app, which has seen over 120,000 Easy Park parking sessions and approximately 13,000 unique users since the City began trialling the technology in March 2018.

## Park and ride celebrates one year

The CN's popular Park and Ride service turned one in November after taking over 26,000 cars off inner-city streets since it was first introduced last year.

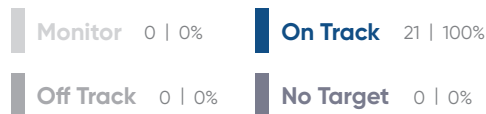
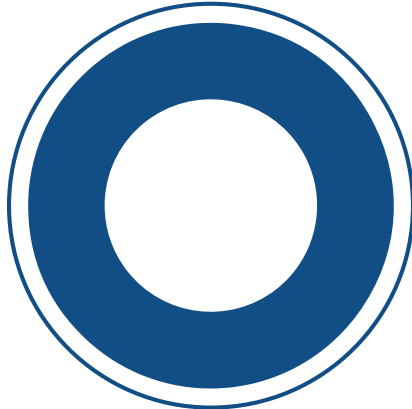


# How we performed

Total initiatives

**100%**

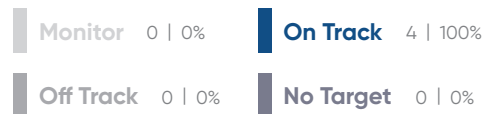
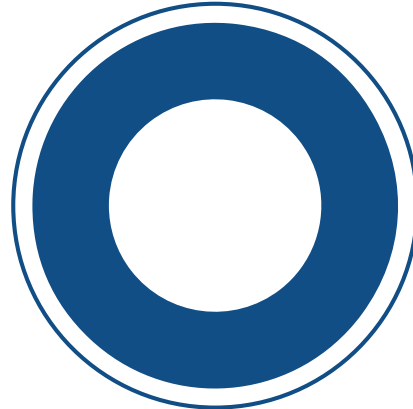
Of initiatives completed or on track



Total Key Performance Indicators

**100%**

Of KPIs completed or on track



## 1.1 Effective and integrated public transport

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>1.1a Support implementation of the regional transport strategy</b>			
Liaise and partner with other government agency representatives to facilitate optimum transport outcomes for Newcastle	Actively represent Newcastle's position in relation to public transport needs in cross-government forums	Assets and Projects	✓
Promote sustainable transport	Enhance information about public transport and active transport on CN's website	Assets and Projects	✓
<b>1.1b Advocate for public transport improvements including extension of the light rail</b>			
Advocate to the State and Federal Government for improved transport outcomes for Newcastle	CN will continue to advocate to other levels of government for assistance to meet compliance standards for transport stops	Assets and Projects	✓
	Lead the formation of a working party to deliver an expanded light rail network with relevant state agencies, Keolis Downer and the community	Assets and Projects	✓

### 1.1c Plan and deliver accessible local infrastructure improvements for public transport


Improve equity of access to public transport, through upgrading of transport stops to meet the disability standards for accessible public transport	Implement the transport stops program including the renewal and upgrades of bus shelters and seating to comply with Federal Government Legislation	Assets and Projects	
	CN will continue to advocate to other levels of government for assistance to meet compliance standards for transport stops	Assets and Projects	
Improve access to public transport	Undertake planning for a principal pedestrian network	Assets and Projects	

## 1.2 Linked networks of cycle and pedestrian paths





Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>1.2a Continue to upgrade and extend cycle and pedestrian networks</b>			
Develop a network of safe, linked cycle and pedestrian paths integrated with key destinations and green space	Continue to implement the Newcastle Cycling Strategy and Action Plan	Assets and Projects	
	Continue to support delivery on our special rate variation project cycleways	Assets and Projects	
Promote walking and cycling	Continue to implement the ongoing cycling education and promotion campaign	Assets and Projects	
	Enhance information about active transport on CN's website	Assets and Projects	
Enhance the safety of cyclists and pedestrians	Incorporate consideration of lighting in cycling and pedestrian projects	Assets and Projects	

## 1.3 A transport network that encourages energy and resource efficiency

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>1.3a Ensure safe road networks through effective planning and maintenance</b>			
Improve the safety, quality and amenity of local roads through increased road reconstruction, resurfacing and line marking programs	Develop and implement the roads resurfacing program and road renews works program	Assets and Projects	
	Improved safety for all road users, through implementation of pedestrian access and mobility plan project and local area traffic management projects	Assets and Projects	
Support the continuation of parking education and enforcement programs across Newcastle, particularly around schools and sporting fields/venues	Undertake parking safety education programs	Assets and Projects	
<b>1.3b Ensure community and business needs for adequate and accessible parking are prioritised</b>			
Implement a parking management strategy in high traffic areas to achieve safety and turnover of spaces	Enforce the parking provision of the NSW road rules to achieve traffic and pedestrian safety and turnover of parking	Assets and Projects	

Improve way-finding signage in commercial centres to assist drivers to locate available parking in a more timely manner	Install parking infrastructure that supports the use of available technology and smart parking initiatives	Assets and Projects	
-------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	---------------------	-------------------------------------------------------------------------------------

**1.3c Implement technology solutions to improve transport infrastructure and experiences, and encourage mobility innovation**

Maintain the quality of local and regional roads through road reconstruction and resurfacing programs	Develop and implement the roads resurfacing and renewal works programs	Civil Construction and Maintenance	
Improve the safety of local and regional roads through pedestrian access and mobility planning and local area traffic management	Continue with review and implementation of local area traffic management studies	Assets and Projects	
	Undertake planning for a principal pedestrian network		
Introduce technology to provide greater access to parking payment options and information	Support the continuation of the trial of pay by phone application	Regulatory, Planning and Assessment	







# Protected Environment

**Our unique environment will be understood, maintained and protected.**

## Community Objective

2.1 Greater efficiency in the use of resources

---

2.2 Our unique natural environment is maintained, enhanced and connected

---

2.3 Environment and climate change risks and impacts are understood and managed

---

## Our supporting Strategies and Plans

Newcastle Environmental Management Strategy 2013

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Newcastle 2020 Carbon and Water Management Action Plan 2011

---

Smart City Strategy 2017-2021

---

Throsby Creek Action Plan 2017

---

Urban Water Cycle Policy 2017

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Newcastle Coastal Zone Management Plan Stockton 2018

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Hunter Estuary Coastal Zone Management Plan 2017

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# Highlights of Protected Environment

## 58% satisfaction with bins in Newcastle

(very satisfied, satisfied or not concerned)



**13,400 tonnes**

exported for reuse or recycling



## 113,182 collections

including kerbside residential, commercial customers, public place bins, bulk waste and illegal dumping

**5,180**

participated in three key waste education programs



## Winner of Best Campaign Aware

for our participation in Garage Sale Trail, which saw an increase in participation in the event of **350%**

Red lid residual waste

**17,848 tonnes**

Green lid garden organics

**6,985 tonnes**

Recycling

**6,435 tonnes**

## Top three improvements

(suggested by our community in the spring quarterly survey)

1. More bin locations
2. More recycling bins
3. More education and engagement to improve littering behaviour

# What we did

## LEDs to light up residential streets

CN will replace more than 5,000 ageing street lights with environmentally friendly light emitting diodes (LEDs) in a bid to slash the city's annual energy use.

CN has resolved to replace 5,312 sodium and mercury vapour street lights in residential areas with LEDs in a move that will save 1.38 gigawatt hours (GWh) of power annually, or nearly 10 % of CN's entire electricity usage.

The replacement program will reduce our annual electricity bill by \$240,000, save \$73,000 in maintenance costs, plus produce a one-off energy saving certificate payment of \$355,000 issued by the NSW Government.

Energy use from street lighting accounts for around half of our total energy consumption, and LEDs, as well as having a longer life span, provide a more effective, higher quality white light that require less energy.

## Museum solar roof wins Climate Council award

CN has taken out top honours for its work on the climate change frontline, at the inaugural Cities Power Partner Summit Awards.

CN took home the Cities Power Partnership Energy Efficiency Achievement award for the Newcastle Museum Energy Upgrade Project, which upgraded lighting in several sections of the building to maximise energy efficiency, saving thousands on power bills, in addition to installing a 100kW solar panel.

Newcastle Museum, as a key cultural facility and tourist attraction, was a prime site for an energy efficient upgrade, which is helping CN save money on electricity bills and, reducing ongoing operational costs for this heritage site.

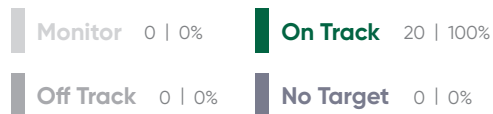
This project is one that continues to build on our long track record of acting to reduce electricity consumption and carbon emissions. We have now undertaken energy-efficiency upgrades at social, cultural and recreational facilities that Newcastle residents use every day, as well as CN operational buildings.

# How we performed

Total initiatives

**100%**

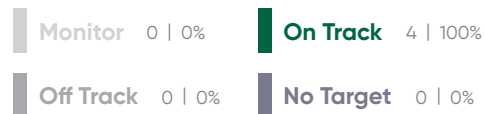
Of initiatives completed or on track



Total Key Performance Indicators

**100%**

Of KPIs completed or on track



## 2.1 Greater efficiency in the use of resources

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Dec Status
<b>2.1.1 Improve waste minimisation and recycling practices in homes, work places, development sites and public places</b>			
Develop internal waste management programs that reduce waste and increase recycling within CN	Work with individual business units to develop service level plans that reduce waste generation and increase resource recovery	Waste Services	✓
Develop customer interface to enable sharing of waste performance data and to enable customer self-service for bulk collections and vouchers	Identify key deliverables and develop a delivery strategy over a three-year period	Waste Services	✓
Improve public place waste and recycling services that both raise awareness of waste and increase resource recovery	Roll out of at least 20 new waste recycling stations with improved aesthetics and cleanliness	Waste Services	✓
Improve and increase recycling infrastructure at Summerhill to increase resource recovery	Start construction of new Small Vehicle Drop Off Facility	Waste Services	✓

### 2.1.2 Investigate and implement renewable energy technologies

Increase the percentage of CN's electricity sourced from low carbon energy sources	Construct a mid-scale Summerhill Solar Farm project to offset CN's energy use and greenhouse emissions	Waste Services Corporate and Community Planning	✓
Support the objectives and implementation of the Newcastle Carbon and Water Management Action Plan	Establish No.2 Sportsground as the trial site for smart grid and smart city energy technologies	Projects and Contracts	✓



### 2.1.3 Encourage energy and resource efficiency initiatives

Pilot and deploy technologies that improve energy and resource sustainability across CN and the broader community	Install private street lighting network throughout our Local Government Area (LGA) utilising LED technology and smart lighting controls	Corporate and Community Planning	✓
	Commence construction of electric vehicle charging stations throughout the city	Corporate and Community Planning	✓

## 2.2 Our unique natural environment is maintained, enhanced and connected

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Dec Status
<b>2.2.1 Provide and advocate for protection and rehabilitation of natural areas</b>			
Continue to implement our City Wide Maintenance Policy to achieve an expanded and sustainable canopy cover through our streets and parks trees	Implement the tree inspection program in line with the City-Wide Maintenance Policy	Civil Construction and Maintenance	✓
Promote environmentally sustainable business practices	Proactively monitor and regulate activities to minimise environmental impact, including implementing CN's business pollution prevention program and erosion and sediment control program	Regulatory and Assessment	✓
Ensure development takes place in accordance with the requirements of environmental planning	Manage contaminated land information and seek appropriate remediation through the development application process	Regulatory and Assessment	✓
Promote environmentally sustainable management of onsite wastewater systems	Proactively monitor and regulate onsite sewage management systems to minimise the risk of water pollution and public health impacts	Regulatory and Assessment	✓
Implement the Newcastle Coastal Management Plan maintaining a balance between long term use and conservation	Deliver environmental improvement projects and maintenance along the coastline	Parks and Recreation	✓
Implement the Plan of Management for Blackbutt Reserve	Deliver environmental improvement projects and deliver the Blackbutt Reserve Master Plan	Parks and Recreation	✓
Ensure priority natural environment areas are maintained and improved	Ensure the priority natural environmental areas are included in environment renewal program	Assets and Projects	✓


### 2.2.2 Encourage and support active community participation in local environmental projects

Incorporate opportunities for community involvement in the delivery of natural environment areas maintenance and improvement projects	Deliver the natural connections and living streets community education initiatives in coordination with the delivery of key environment, storm water and road projects	Assets and Projects	
Continue to support and promote Landcare and other volunteer groups as ancillary delivery mechanism for natural asset management	Deliver environmental improvements throughout the LGA with the assistance of Landcare and corporate groups by one off events and weekly activities	Parks and Recreation	



## 2.3 Environment and climate change risks and impacts are understood and managed

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
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### 2.3.1 Ensure decisions and policy response to climate change remains current and reflects community needs

Keep the community involved in the development of climate change adaption measures consistent with the adopted plans	Monitor sea level rise and ground water behaviour in low lying suburbs	Assets and Projects	
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### 2.3.2 Build community readiness by engaging the community in risk management processes

Support individuals to prepare, respond and recover from emergency events	Coordinate prevention, preparedness, response and recovery activities in accordance with legislation and emergency plan responsibilities	Legal	
	To formalise an Integrated Emergency Management Capability and Capacity Development Framework to enhance CN's capacity to effectively prevent, prepare for, respond to, and recover from significant emergency events impacting the communities of Newcastle	Legal	







# Vibrant, Safe and Active Public Places

**A city of great public places and neighbourhoods promoting people's happiness and wellbeing.**

## Community Objective

3.1 Public places that provide for diverse activity and strengthen our social connections

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3.2 Culture, heritage and place are valued, shared and celebrated

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3.3 Safe and activated places that are used by people day and night

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## Our supporting Strategies and Plans

Parkland and Recreation Strategy 2014

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Cultural Strategy 2016-2019

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Safe City Plan 2017-2020

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Events Plan 2016-2019

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Newcastle Night Time Economy Strategy 2018-2021

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Disability Inclusion Action Plan 2016-2019

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Dogs in Open Spaces Strategy 2018

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Draft Outdoor Exercise Facility Strategy 2018

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# Highlights of Vibrant, Safe and Active Public Places

**79% satisfaction with cleanliness of beach and beach facilities**

(very satisfied, satisfied or not concerned)



**423,572** ↑ 12%

library loans

**332,155** ↑ 32%

library attendance

## Bathers Way

**84%**

have used Bathers Way

**87%**

feel that the upgrade has enhanced our beaches and coastal areas

**3.7**

satisfaction with **maintenance** of public parks

satisfaction with **cleanliness** of public parks



Just over

**six in ten (63%)**

survey participants had visited Blackbutt Reserve in the last two years



No. of people attending live performance at City Hall

**3,048**

No. of live performances at City Hall

**9**



**23,104** ↑ 3%

attendance at Beresfield Pool

# What we did

## Life is an adventure at Blackbutt Reserve

Blackbutt Reserve got even better with the opening of Richley Reserve's new adventure mega-playground in September.

The \$2.5 million overhaul included new wider footpaths, shelters, BBQ areas and green space, but the playground - the largest in the Newcastle local government area - is the real star of the show.

The adventure playground is the city's biggest and best and will entertain tens of thousands of children over the coming months.

Rock and stick play spaces, a ropes course, swings and an adventure tower complete with bridges, slide and fireman poles are all part of the huge 60m-long play area, inspired by the surrounding bushland.

The variety of activities and spaces creates nature-based play for toddlers through to tweens.

## Matildas role models emblazoned across city

CN and McDonald Jones Stadium teamed up to promote the Matildas National Women's Soccer Team across the city for their match with Chile which was held in November.

Twelve banners bearing images of the players were unveiled in October by the Lord Mayor Nuatali Nelmes and Emily van Egmond, the team's Newcastle-raised vice-captain, to help raise the profiles of our national stars and promote the November game.

## Fernleigh sporting first of six new fitness parks

One of Newcastle's best-known exercise routes, the Fernleigh Track, now offers another way to keep fit thanks to a new workout station just north of the City Road tunnel at Adamstown Heights.

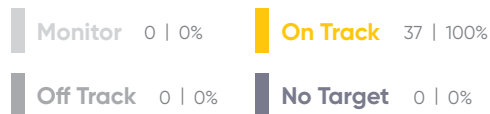
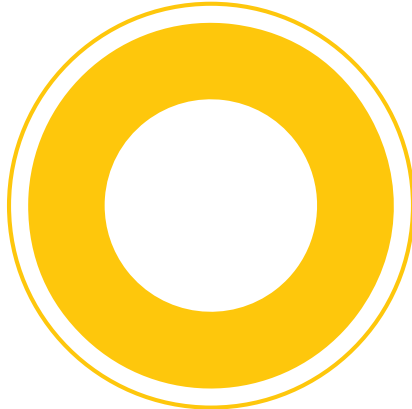
The open-air exercise station, funded by the CN with the support of State Government, is the first of six to be built in the next few years as part of the Outdoor Exercise Facility Plan to help keep Novocastrians in shape.

# How we performed

Total initiatives

**100%**

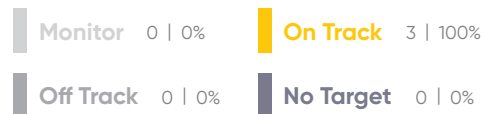
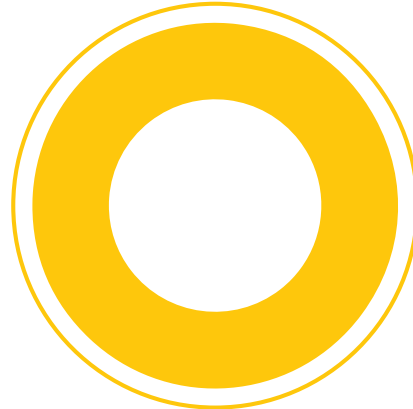
Of initiatives completed or on track



Total Key Performance Indicators

**100%**

Of KPIs completed or on track



## 3.1 Public places that provide for diverse activity and strengthen our social connections

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>3.1.1 Provide quality parkland and recreation facilities that are diverse, accessible and responsive to changing needs</b>			
Continue to support and deliver on our special rate variation project Blackbutt Reserve Revitalisation	Upgrading Blackbutt Reserve Project - develop designs and plans for the next stage	Assets and Projects	✓
Continue to upgrade and enhance our existing libraries	Upgrade to Lambton Library to create the StoryBook Cottage Early Literacy Centre in partnership with community agencies	Libraries and Learning	✓
Promote the environmental and recreational community use of our local parks and open space	Deliver positive communications regarding local parks and open spaces that educate the community	Parks and Recreation	✓

Upgrade and enhance our parkland and recreational facilities	Deliver recreational facility improvements throughout the city - playgrounds, outdoor courts, sportsgrounds, exercise equipment, dog off-leash areas	Parks and Recreation	✓
	Review and upgrade Lambton Pool facility to meet current community needs and industry requirements	Parks and Recreation	✓
	Refurbishment of tennis facilities	Parks and Recreation	✓
	South Newcastle Reserve - playground design	Parks and Recreation	✓
Ensure that recreation facilities provide opportunities for the full range of age groups and abilities	Deliver projects that support whole of community use and incorporate universal design principles	Parks and Recreation	✓
Ensure spaces and facilities are multi-functional, and adaptable to changing needs	Undertake plans of management and masterplans to reflect the current community needs	Parks and Recreation	✓
<b>3.1.2 Enhance our beaches and coastal areas through upgraded facilities</b>			
Continue to support and deliver on Coastal Revitalisation	Plan and design for the implementation of the Bathers Way at South Newcastle, Bar Beach and King Edward Park	Assets and Projects	✓
<b>3.1.3 Plan, coordinate and deliver cultural and community infrastructure and programs</b>			
Develop and deliver a range of learning-based community events and programs in partnership to enhance social connections	Deliver annual One City, One Book Big Book Club	Libraries and Learning	✓
	Deliver the Community Living Lab - Backyard Detectives - a Smart City Partnership	Libraries and Learning	✓
	Deliver Reading Matters - a series of author programs to discuss ideas and ethics	Libraries and Learning	✓
Ensure Newcastle audiences have access to a diverse range of exhibitions and works of high quality	Maintain a balance of programming targeted to a breadth of audience demographics including works of new and emerging thinking, forms and technology	Art Gallery Civic Services	✓
Ensure Newcastle audiences have access to a diverse range of audience engagement programs	Maintain a balance of audience engagement programs targeted to a breadth of audience demographics	Museum	✓
Partner with Newcastle's small to medium not for profit arts and cultural organisations in growing arts and culture in the city	Establish up to five programming partnerships of up to three-year terms with key programming deliverables for the city	Civic Services	✓
Partner with Newcastle community organisation to deliver diverse opportunities	Establish partnerships with key programming deliverables for the city	Museum	✓

### 3.2 Culture, heritage and place are valued, shared and celebrated





Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>3.2.1 Celebrate Newcastle's history, cultural heritage and cultural diversity</b>			
Grow the city's identity via its collections of art and artefacts, local history and architecture	Plan, support and maintain the city's art exhibitions and collections to generate educational programming	Art Gallery	✓
	Present Art Gallery shows that feature local stories and cultural identity across the LGA	Art Gallery	✓
	Present shows within Civic Services that feature local stories and cultural identity across the LGA	Civic Services	✓
	One major event developed per annum to showcase and/or to the collections	Libraries and Learning	✓
	Maintain a balance of local stories told through exhibitions, web contents	Museum	✓
	Number of accessioned objects for the Museum	Museum	✓
<b>3.2.2 Increase collaboration with artists and practitioners in the cultural sector</b>			
Promote the Newcastle Library's Local History and Heritage Collections through a range of exhibitions, partnerships and programs	Deliver the Local History and Heritage Collections three-year strategy to outline collecting profiles.	Civic Services Libraries and Learning	✓
	One major event developed per annum to showcase and/or add to the collections	Libraries and Learning	✓
Expose local stories, both historic and contemporary, through cultural programming and build Newcastle's cultural identity	Present shows that feature local stories and cultural identity across the local government area.	Museum	✓
	Deliver Arts and Cultural support programs	Civic Services Art Gallery	✓

### 3.3 Safe and activated places that are used by people day and night

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>3.3.1 Collaborate with local groups and services to address crime and safety</b>			
Provide safe on and off-street parking facilities	Deliver parking safety programs and improved accessibility across Newcastle through parking safety initiatives, management and enforcement	Assets and Projects	✓
	Continue to partner and fund on the ground initiatives including Walk Smart and Salvation Army Streetsafe program	Corporate and Community Planning	✓
Protect, promote and control the risk to public health associated with local business activities	Conduct regular inspection programs of food businesses, skin penetration premises and premises with water cooling systems (legionella) and public swimming pools	Regulatory, Planning and Assessment	✓
Develop public places that are safe, welcoming and inclusive	Deliver park improvement projects that integrate safer by design principles	Parks and Recreation	✓



**3.3.2 Plan for a night-time economy, characterised by creativity, vibrancy and safety, that contributes to cultural and economic revitalisation**

Implement policy and strategic initiatives to encourage more diverse night time venues	Adopt and implement the Newcastle After Dark Strategy	Corporate and Community Planning	
	Deliver, with partners, the night-time spaces project to create more interactive and safer public spaces in the city's nightlife precincts	Corporate and Community Planning	
	Apply crime prevention through environmental design principles for all new and replacement infrastructure	Corporate and Community Planning	
	Implement creative and safety lighting programs	Assets and Projects	



# Inclusive Community

**A thriving community where diversity is embraced, everyone is valued and has the opportunity to contribute and belong.**

## Community Objective

4.1 A welcoming community that cares and looks after each other

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4.2 Active and healthy communities with physical, mental and spiritual wellbeing

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## Our supporting Strategies and Plans

Multicultural Plan 2016 - 2019

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Disability Inclusion Action Plan 2016 - 2019

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Newcastle Libraries Strategy 2018 - 2020 (draft)

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Social Strategy 2016 - 2019

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Aboriginal Employment Strategy 2018-2021

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# Highlights of Inclusive Community

78% feel welcomed and connected with their local community

(summer survey results)

77% CN's cultural facilities promote culture

(strongly agree or agree that)



42,421

visitors to the Art Gallery



64,138

visitors to the Museum

526

Number of educational/public programs held at the Art Gallery



## Highlights of the shows at Civic Theatre and Playhouse

Catherine Tate  
Rockwiz  
Wharf Review  
Newkulele Festival  
Sydney Comedy Festival  
Russian Ballet  
Dire Straites Experience  
Prize Fighter  
Madame Butterfly  
Ab-Intra  
Xavier Rudd  
The White Album



No. of people attending live performance

48,409 Civic Theatre

5,781 Playhouse

No. of live performances

64 Civic Theatre

53 Playhouse

# What we did

## Eternal Flame construction

CN installed Newcastle's first Eternal Flame honouring all ex-servicemen and women.

The flame is located in front of the World War Two Monument in Civic Park and was officially unveiled during the ceremony on 11 November to mark the 100th anniversary of Armistice Day.

The stone monument, built of the same granite as the World War Two monument, is a joint project by CN and the Australian Government, following a successful Lord Mayoral Minute and grant application through the Department of Veterans' Affairs.

## New open-plan design for Beresfield Library

Beresfield Library officially reopened at the end of July following a major renovation with a crowd on hand to celebrate its flexible, open-space design.

Local kids and families as well as children from Beresfield Child Care Centre joined in the celebration, which included a Storytime session with books, songs and craft.

The open-plan design offers plenty of space to study and relax, to read a book with your children, or to use one of the public access computers.

The renovation included roof replacement, remedial work to repair water damage, replacement of carpets and air conditioning, new electrical and data cabling installed for the computers, and a fresh coat of paint inside.

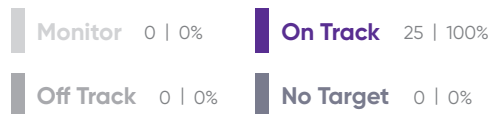
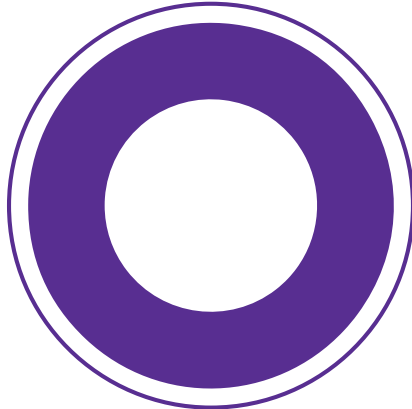
The new library space is bright and fresh, with improved access to collections and a brand-new children's area complete with an interactive activity table and toys.

# How we performed

Total initiatives

**100%**

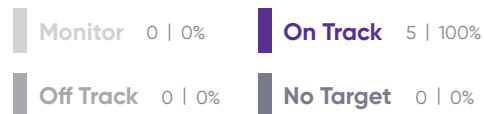
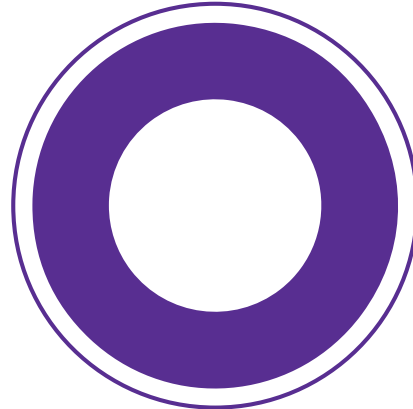
Of initiatives completed or on track



Total Key Performance Indicators

**100%**

Of KPIs completed or on track



## 4.1 A welcoming community that cares and looks after each other

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>4.1.1 Acknowledge and respect local Aboriginal history, cultural heritage and peoples</b>			
Develop and deliver programs or events aimed at adding to the Library Local History resources and engaging and highlighting the local Aboriginal history and cultural heritage	Deliver one event highlighting the local Aboriginal history and cultural heritage	Libraries and Learning	✓
Deliver an Aboriginal Heritage Management Strategy	Complete and implement the Aboriginal Heritage Management Strategy	Corporate and Community Planning	✓
Know our heritage and enhance our community's knowledge or and regard for Aboriginal cultural heritage items and places	Complete the dual naming project with the installation of signage at eight locations and supporting website	Corporate and Community Planning	✓
Continue to work on reconciliation	Implement CN's Reconciliation Action Plan	Whole of Organisation	✓
Increase engagement with local Aboriginal community	Continue 'Cultural Conversations' with Aboriginal and Torres Strait Islander peoples	Corporate and Community Planning	✓

#### 4.1.2 Promote initiatives and facilities that support social inclusion and community connections

Support and encourage recreational programs and events by community groups and not for profit groups	Advocate and liaise with groups in relation to open space bookings and events	Property and Facilities	
Ensure open space and facilities are multi-functional and support whole of community use	Upgrades to community facilities to improve accessibility	Property and Facilities	
Improve and develop existing library facilities, services and resources ensuring their ongoing relevance to the community	Develop and deliver the Beresfield Library Community Hub - focus on wellbeing, community participation and learning	Libraries and Learning	
Deliver the Disability Inclusion Action Plan	Further develop advice and guidance on delivering accessible and inclusive events. Deliver/develop partnerships for inclusive events	Corporate and Community Planning	
	Promote and support roll out of Abilitylinks Better App	Corporate and Community Planning	
	Continue to undertake accessibility audits for particular locations or assets	Corporate and Community Planning	

#### 4.1.3 Improve, promote and facilitate equitable access to services and facilities

Improve and develop existing library facilities, services and resources ensuring their ongoing relevance to the community	Develop and deliver the 10 Year Library Infrastructure Plan	Libraries and Learning	
Deliver the Disability Inclusion Action Plan	Implement Disability Awareness training as part of staff induction process	Corporate and Community Planning	
Promote a culture of responsive customer service	Undertake second audit of website accessibility to assess progress towards content compliance	Corporate and Community Planning	
Celebrate inclusive practice and access outcomes	Liaise with and promote accessible and inclusive sports and activities within Newcastle	Parks and Recreation	
Improve staff awareness of disability issues to provide responsive services for customers with a disability	Undertake break down the barriers awareness with councillors, executive leadership and other staff	Corporate and Community Planning	

### 4.2 Active and healthy communities with physical, mental and spiritual wellbeing

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>4.2.1 Ensure people of all abilities can enjoy our public places and spaces</b>			
Ensure that a variety of parklands and recreational facilities are provided, that are accessible and distributed equitable across the city	Deliver recreational facility improvements throughout the city - playgrounds, outdoor courts, sportsgrounds, exercise equipment, dog off-leash areas	Parks and Recreation	

Demonstrate leadership in public domain improvements	Promote new lift and change facilities at Nobby's Beach. Develop priority list of potential lift and change locations	Corporate and Community Planning	✓
	Continue to implement the Disability Inclusion Action Plan and work with our newly established Disability Inclusion Advisory Committee	Corporate and Community Planning	✓
New or renewed infrastructure will be delivered in accordance with Disability Standards where practical	Continuously upgrade CN's assets to meet the requirements of the Disability Discrimination Act	Assets and Projects	✓

#### 4.2.2 Improve access to formal and informal learning opportunities, facilities and services

Increase focus on young people (16-30 yrs.)	Actively invest in programming and communications targeted to young people including youth services	Art Gallery Civic Services	✓
Develop and deliver community programs, partnerships, information and learning programs designed to create wide opportunities for all	Provide targeted lifelong learning resources and programs to improve pathways to higher education and skillsets in technology literacies, digital literacies, physical/mental health and wellbeing	Libraries and Learning	✓

#### 4.2.3 Promote recreation, health and wellbeing programs

Support and encourage development of recreation and leisure opportunities and events	Regularly update our website and social media to encourage development of recreation and leisure events	Parks and Recreation	✓
Promote awareness of the requirements of the Companion Animals Act with respect to the ownership of companion animals	Expand upon the existing Responsible Pet Ownership program, to have three to four community events per year in collaboration with RSPCA and other stakeholders	Regulatory, Planning and Assessment	✓
Develop an integrated agency response policy to address the issue of animal hoarding and squalor within the community	Develop partnerships with involved agencies including RSPCA, Dept of Housing, Newcastle local health district and Fire & Rescue NSW	Regulatory, Planning and Assessment	✓







# Liveable Built Environment

**An attractive city that is built around people and reflects our sense of identity.**

## Community Objective

- 5.1 A built environment that maintains and enhances our sense of identity
- 5.2 Mixed-use urban villages supported by integrated transport networks
- 5.3 Greater diversity of quality housing for current and future community needs
- 5.4 Sustainable infrastructure to support a liveable environment

## Our supporting Strategies and Plans

Local Planning Strategy 2015

Heritage Strategy 2013 – 2017

Aboriginal Heritage Management Strategy 2018

Affordable Living Plan

Local Environmental Plan

Development Control Plan

# Highlights of Liveable Built Environment

**56% satisfaction with the quality of heritage conservation in supporting Newcastle's identity**

(very satisfied, satisfied or not concerned)

Mean net determination times for Development Applications

**69 days**



The average number of Development Applications received/month

**127 applications**



No. of development applications and value of works

<b>Approved</b>	<b>680</b>	<b>\$411,322,194</b>
<b>Determined</b>	<b>806</b>	<b>\$457,012,197</b>
<b>Received</b>	<b>838</b>	<b>\$896,050,388</b>

# What we did

## City Hall

CN unveiled a newly restored section of City Hall as part of the architectural jewel's external restoration.

Hoarding was removed from the south-eastern vehicle ramp and facade along King Street, revealing a newly built driveway, and the footpath completely re-opened to pedestrians.

We are carefully restoring the 1929 heritage building to endure as the Civic Precinct's showpiece, and this latest section is a major milestone in the project. The large-scale conservation work is ensuring City Hall stands strong and proud in a pivotal precinct that will quickly grow in stature as a cultural and hospitality hub.

The highest quality self-colouring sandstone material has been used to replace ageing and damaged parts of the building, with the Sydney basin 'Yellowblock' sandstone excavated from a building site in George Street, Sydney. The use of high-quality material will ensure the longevity of the building and help reduce future building maintenance.

While the south-eastern hoarding has come down, retractable bollards will remain at the base of the ramp to prevent vehicle access until the remaining work is completed on the southern façade.

Work to conserve the western and northern facade continues, with eastern construction compound still in place.

## Partnership brings affordable housing to Wickham

CN and Compass Housing will each contribute \$3 million towards an affordable housing development in the inner-city.

Eight of the 17 one and two-bedroom units on Station Street, Wickham will be reserved for key workers, with the remaining nine for social housing tenants.

The project will provide homes for workers such as teachers and emergency services personnel and will typically see rents capped at 30% of household incomes.

Our contribution comes from the Building Better Cities funds and will be provided once 80% of the project is completed.

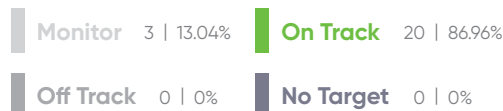
The joint venture will provide homes close to transport and jobs to ensure a healthy diversity of inner-city residents as part of our well-rounded city centre revitalisation efforts.

# How we performed

Total initiatives

**87%**

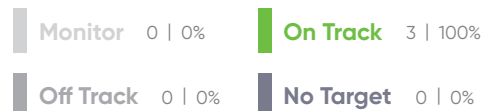
Of initiatives completed or on track



Total Key Performance Indicators

**100%**



Of KPIs completed or on track



## 5.1 A built environment that maintains and enhances our sense of identity

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>5.1.1 Protect and promote our unique built and cultural heritage</b>			
Ensure compliance with environmental planning regulations	Undertake investigations into alleged breaches of planning laws and development consents and promote awareness of policy, procedure and laws to encourage voluntary compliance	Regulatory, Planning and Assessment	✓
Ensure development controls and zoning protect the heritage significance of items and conservation areas	Implement the recommendations from the Review of Heritage Conservation Areas Final Report. This includes the preparation of planning proposals and a review of Development Control Plans and Technical Manuals	Regulatory, Planning and Assessment	✓
Apply a flexible approach to development provisions in order to support the adaptive reuse of heritage items where it achieves their ongoing preservation and use	Review Heritage Technical Manual and Development Control Plans relating to heritage to ensure they support the adaptive reuse of heritage buildings	Regulatory, Planning and Assessment	✓
Grow the city's identity via its collections of art and artefacts, local history and architecture	Allocate public programming resources to increase access to the city's cultural collections	Civic Services	✓
Ensure we protect and maintain our unique built and cultural heritage infrastructure	City Hall restoration - restore the Southern facade of City Hall, along with the remaining eastern facade	Assets and Projects	✓








### 5.1.2 Ensure our suburbs are preserved, enhanced and promoted, while also creating opportunities for growth


Ensure the development and building controls achieve positive built form outcomes	Ongoing review and updating of development and building controls in urban areas	Regulatory, Planning and Assessment	
The land use pattern will reinforce mixed use centres, educational nodes, opportunities for technology-based businesses, supported by integrated transport	Prepare the Local Strategic Planning Statement as required in the Environmental Planning and Assessment Act 1979 and update the Local Planning Strategy	Regulatory, Planning and Assessment	

### 5.1.3 Facilitate well designed and appropriate scale development that complements Newcastle's unique character






Protect and enhance heritage buildings, streetscapes, views and key features, as well as, encouraging building innovation	Ensure development is consistent with the principles in CN's Local Planning Strategy 2015 including ensuring development addresses public spaces and is scaled for the pedestrian to provide vibrant and activated public spaces	Regulatory, Planning and Assessment	
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## 5.2 Mixed-use urban villages supported by integrated transport networks

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>5.2a Plan for concentrated growth around transport and activity nodes</b>			
Implement the recommendations of CN's Parking Study and Parking Management Action Plan	Provide improved access and management of on-street parking spaces across Newcastle consistent with CN's adopted Parking Management Framework	Assets and Projects	
	Provide increased traffic regulation of on road clearways	Assets and Projects	
	Implement the recommendations of CN's Permit Parking Guidelines, consolidating control of all CN's parking permits into one management area	Assets and Projects	
	Support Park and Ride and investigate possible new locations	Assets and Projects	
Promote integrated, sustainable, long term planning for Newcastle	Review the Local Planning Strategy, to implement the priority actions in the Greater Newcastle Metropolitan Plan relating to Outcome 3 - Deliver Housing close to jobs and services	Regulatory, Planning and Assessment	
	Implement the actions in the Wickham Master Plan to deliver on the vision to create a diverse and dynamic mixed-use neighbourhood	Regulatory, Planning and Assessment	
<b>5.2b Plan for an urban environment that promotes active and healthy communities</b>			
Raise fire safety awareness of all property owners and managers, tenants and business operators	Promote and encourage voluntary compliance with fire safety regulations through submissions of Annual Fire Safety Statements and through the Fire Safety Statement Program	Regulatory, Planning and Assessment	


Develop a community education littering campaign	Collaborate with Keep Australia Beautiful littering campaign and involvement with Regional Illegal Dumping Squad to develop and implement strategies to reduce littering, identify littering or dumping hot spots through intelligence-based trend analysis and increased proactive patrols to identify offenders	Waste Services	
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### 5.3 Greater diversity of quality housing for current and future community needs


Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>5.3a Ensure sufficient housing diversity to meet community needs, including affordable and adaptable housing options</b>			
Promote fire safety in medium to high density boarding houses	Annual compliance inspections of registered and assisted boarding houses, as well as premises being used as unauthorised boarding houses to ensure compliance with fire safety and planning legislation	Regulatory, Planning and Assessment	
Ensure sufficient housing capacity for our future population	CN to work with the Department of Planning and Environment to establish an Urban Development program to monitor delivery of housing in the Lower Hunter	Regulatory, Planning and Assessment	
Ensure sufficient housing diversity to meet community needs	Review the minimum lot size and Floor Space Ratio in the R2 Low Density Residential Zone	Regulatory, Planning and Assessment	
Encourage adaptable housing that can meet the needs of residents throughout the life cycle	CN to advocate for a stronger legislative position	Regulatory, Planning and Assessment	
Facilitate affordable living	Adopt and implement the Affordable Living Plan	Regulatory, Planning and Assessment	

### 5.4 Sustainable infrastructure to support a liveable environment

#### 5.4.1 Advocate for implementation of energy and resource efficiency in new developments

Improved waste and recycling infrastructure	Finalise waste management in new developments guidelines which set minimum planning requirements	Waste Services	
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#### 5.4.2 Plan, provide and manage infrastructure that continues to meet community needs

Implement best practice asset management to deliver sustainable services	Prioritise renewal of infrastructure to deliver desired levels of service	Assets and Projects	
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# Smart and Innovative

**A leader in smart innovations with a prosperous, diverse and resilient economy.**

## Community Objective

6.1 A vibrant diverse and resilient green economy built on educational excellence and research

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6.2 A culture that supports and encourages innovation and creativity at all levels

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6.3 A thriving City that attracts people to live, work, invest and visit

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## Our supporting Strategies and Plans

Smart City Strategy 2017 – 2021

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Economic Development Strategy 2016 – 2019

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Destination Management Plan 2016 – 2019

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Events Plan 2016-2019

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Newcastle Libraries Strategy 2018 - 2020 (draft)

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# Highlights of Smart and Innovative

More than  
**162,000**

attended the 2018 Newcastle  
500 Supercars

**14 Events**  
sponsored

**550 primary**  
school students

took part in a STEM competition  
involving robotics and coding  
(a partnership between CN and  
Obelisk Systems)



**5 digital bus**  
signs installed

as part of the SMART MOVE  
NEWCASTLE PROJECTS



**Total followers**  
**78,004**



**Followers ↑ 14%**

**Supporting**  
events in our  
city

**316** New event bookings  
and enquiries

**159** Event authorisations

**30** Filming permits  
issued



**110 smart poles**  
installed

# What we did

## Smart poles roll out continues

The installation of smart poles across the city centre has been accelerating, bringing the number of poles around the East End, down lengths of Hunter Street and surrounding the Newcastle Interchange to 145.

The poles provide various smart technology for the city including energy-saving LED lighting that can be dimmed by remote control and integration for IoT sensors.

The fibre connected poles are providing the technology backbone for a range of smart city initiatives including pilot and proof of concept (POC) projects. Stay tuned as the first Smart City applications, including free public Wi-Fi are rolled out through the poles shortly.

## Smart City - Getting the foundations right

When CN started its Smart City journey in 2016 a huge effort went into developing our strategy document because it's the foundation that affects everything that follows. But it's hard to get right unless people believe in it and work tirelessly to bring it to life.

All that hard work paid off when the Newcastle Smart City Strategy was acknowledged as the best in Australia during Smart Cities Week, by the Smart Cities Council, Australia and New Zealand

## Activation of our city

More than 162,000 people attended the 2018 Newcastle 500 supercars showcasing the city to Australia and the world.

In conjunction with Newcastle Now and the Hamilton Business Chamber (HBC), CN delivered a series of activations for the event weekend under the banner Entertain Newcastle.

Hamilton Super Start-up kicked off the festivities on the Thursday evening. According to the HBC, approximately 5,000 people attended Gregson Park for the driver signing and Beaumont Street driver cruise.

Entertain Newcastle activations at The Mall, Civic Park, Darby Street and Newcastle West were well received with mainly positive feedback from the business community.

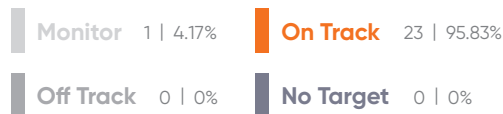
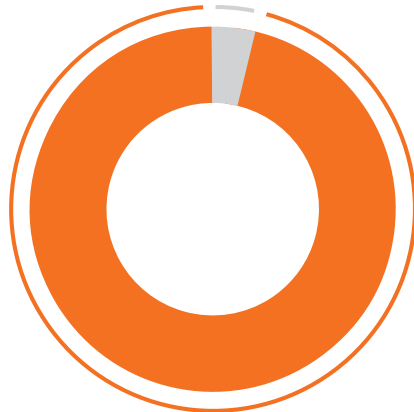
The growing popularity and impact of video on social media prompted an increased focus on video coverage over still photography, with a daily wrap-up video posted each evening. In less than 48 hours, our Day One video alone was viewed more than 18,000 times across our corporate and Visit Newcastle social media channels.

# How we performed

Total initiatives

**96%**

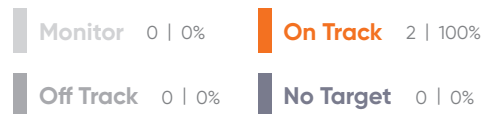
Of initiatives completed or on track



Total Key Performance Indicators

**100%**




Of KPIs completed or on track







## 6.1 A vibrant diverse and resilient green economy built on educational excellence and research

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>6.1.1 Recognise and strengthen Newcastle's role as a regional capital and hub for industry, education, health, business, personal, tourism, port and logistics services</b>			
Embrace digital platforms to broaden audiences for culture	Invest in digital platforms to broaden and deepen audience engagement	Art Gallery Museum Civic Services	✓
Promote the lifestyle and cultural values of Newcastle as a place to work, invest and live	Develop an opportunities prospectus to promote Newcastle as the perfect business and lifestyle location nationally and internationally	Major Events and Corporate Affairs	✓
Promote Newcastle as a United Nations City	Participate in the United Nations Compact City Partnership Program	Corporate and Community Planning	✓
<b>6.1.2 Attract new business and employment opportunities</b>			
Continue to work with the NSW Government to promote revitalisation of the city centre and attract new investment, business and jobs	Gather and analyse economic and industry information to identify gaps and business opportunities	Corporate and Community Planning	✓
Strengthen the existing commercial and activity centres and service and employment centres	Continue to deliver the Local Centres Public Domain program to foster new growth in local centres	Assets and Projects	✓

## 6.2 A culture that supports and encourages innovation and creativity at all levels

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>6.2.1 Support and advocate for innovation in business, research activities, education and creative industries</b>			
Continue to build on and promote Newcastle's advantages in education, health, energy research and smart city initiatives	Deliver the Smart Cities and Suburbs program	Corporate and Community Planning	
Increase support for, and engagement with, local artists, innovative thinkers, academic creatives and cultural practitioners	Support development of artists and practitioners through mentoring and professional placements	Art Gallery	
	Establish program for tertiary students in cultural disciplines and professional practitioners, to view ticketed programming at reduced prices	Art Gallery Museum	
Continue to facilitate innovative ecosystem development projects	Support the strategic development of the regional incubator collaborative project and the iQ series of events	Corporate and Community Planning	
<b>6.2b Support and advocate for the small business sector</b>			
Encourage and support local business networks and industry clusters	Participate actively in the small business friendly councils program sponsored by the NSW Office of the Small Business Commissioner	Corporate and Community Planning	

## 6.3 A thriving city that attracts people to live, work, invest and visit

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>6.3a Facilitate events that attract visitors and support the local economy and the vibrancy of Newcastle</b>			
Maintain a diverse program of events to appeal to a broad audience that build on Newcastle's assets	Deliver the annual Event Sponsorship program	Major Events and Corporate Affairs	
Build cultural tourism by presenting events that celebrate the city and contribute to its identity	Expose local stories through cultural programming and build Newcastle's cultural identity	Art Gallery Museum Civic Services Major Events and Corporate Affairs	
<b>6.3b Work with the tourism sector to further develop Newcastle as a visitor and event destination</b>			
Implement the Destination Management Plan	CN to continue its leadership role in developing the visitor economy and partnering with Newcastle Tourism Industry Group and operators	Major Events and Corporate Affairs	
Continue to research and promote sector infrastructure issues, including accommodation and conference facilities	Maintain the visitor website as well as print promotions such as maps and self - guided tours	Major Events and Corporate Affairs	

Utilise economic and business information to track city and key industry trends	Investigate the visitor services model	Major Events and Corporate Affairs	✓
Continue to identify signature events and experiences for the Newcastle community and our visitors	Through Newcastle Convention Bureau promote Newcastle as a destination for business, association and professional conferences and events	Major Events and Corporate Affairs	✓
<b>6.3c Work with businesses, planners and government at all levels to facilitate key infrastructure to support business growth</b>			
Work with our community, business sector and government to identify and facilitate key infrastructure projects	Continue to work with Venues NSW on the Hunter Sports Precinct Plan	Parks and Recreation	✓
	Continue to support the development of Newcastle Airport expansion and national and international routes	Corporate and Community Planning	✓
<b>6.3d Foster a collaborative approach to continue city centre renewal</b>			
Revitalisation of our city centre to provide the standard of facilities necessary to attract people to live, work and play in Newcastle	Work with State Government agencies on Newcastle Light Rail and urban renewal projects in the city centre	Corporate and Community Planning	✓
	Continue the planning process for the city centre	Corporate and Community Planning	✓
	Deliver economic development and activation projects across the city to help Hunter Street and surrounds	Corporate and Community Planning	✓





Are we putting more effort or money towards so  
many communities are thriving in 10 years time?

**Cultural Services**  
We provide arts and cultural programming including live exhibitions through the Newcastle Museum, Civic Theatre, City of Councillors, and the City of Councillors. We are the custodian of the city's historical collections, which also include public art, public space activation, business incubation, and contribute to a vibrant and healthy community.

**Library Services**  
Newcastle Region Library Service provides places to engage in reading and learn across the lifespan. They provide an extensive reading program in a range of formats available to all members of the community, and support programs. Our focus is on literacy and numeracy, and the history of the Newcastle Region.

**Roads & Parking**  
We manage the city's roads and parking, ensuring they are safe, accessible, and well-maintained. We also manage the city's public transport infrastructure, including the Newcastle Light Rail and the Newcastle Ferry.

**Community Buildings**  
We manage a range of community buildings, including the Newcastle Convention Centre, the Newcastle Entertainment Centre, and the Newcastle Sports Centre. We ensure these buildings are well-maintained and provide a high-quality environment for our community.

**Parks & Playgrounds**  
We manage a range of parks and playgrounds, ensuring they are safe, accessible, and well-maintained. We also manage the city's public open spaces, including the Newcastle Botanic Gardens and the Newcastle Domain.

**Waste Collection Services**  
We manage the city's waste collection services, ensuring that waste is collected and disposed of in a safe and responsible manner. We also manage the city's recycling and composting programs.

**Blackbutt Reserve**  
Blackbutt Reserve is a unique bushland area providing a natural environment and recreation opportunities. The 100-hectare reserve includes native wildlife, a facility to view the city's skyline, and a playground. It is a great place to enjoy the outdoors and connect with nature.

**Ocean Baths & Beaches**  
We manage a range of ocean baths and beaches, ensuring they are safe, accessible, and well-maintained. We also manage the city's public swimming pools, including the Newcastle Aquatic Centre and the Newcastle Sports Centre.

**Environment**  
We manage the city's environment, ensuring that it is safe, accessible, and well-maintained. We also manage the city's public green spaces, including the Newcastle Botanic Gardens and the Newcastle Domain.



# Open and Collaborative Leadership

**A strong local democracy with an actively engaged community and effective partnerships.**

## Community Objective

7.1 Integrated, sustainable long-term planning for Newcastle and the Region

---

7.2 Considered decision-making based on collaborative, transparent and accountable leadership

---

7.3 Active citizen engagement in local planning and decision-making processes and a shared responsibility for achieving our goals

---

7.4 A local government organisation of excellence

---

## Our supporting Strategies and Plans

Open and Transparent Governance Strategy 2017

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Information and Communication Technology Strategic Plan 2018 - 2020 (ICT Strategic Plan)

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Asset Management Strategy 2018 – 2027

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Aboriginal Employment Strategy 2013 – 2017

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Long Term Financial Plan 2018 – 2027

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Workforce Management Plan 2018 – 2022

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# Highlights of Open and Collaborative Leadership



**3,890**

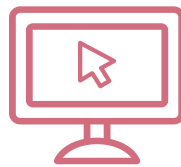
visitors to our customer counter

**78%**

satisfaction with face to face contact with CN

**66,600**

calls taken on 4974 2000



**53%**

of customers indicated that they accessed CN's website prior to contacting CN but it did not help them to resolve their request

**Total followers**

**28,162**



**Followers ↑ 21%**

**6,034 new followers**

**16,000**

residents participated in our two quarterly surveys

**3,500**

media items relating to CN



## Phone calls taken

**31%** Other enquiries

**29%** Waste

**19%** Development and building

**12%** Rates

**10%** Animals and parking

# What we did

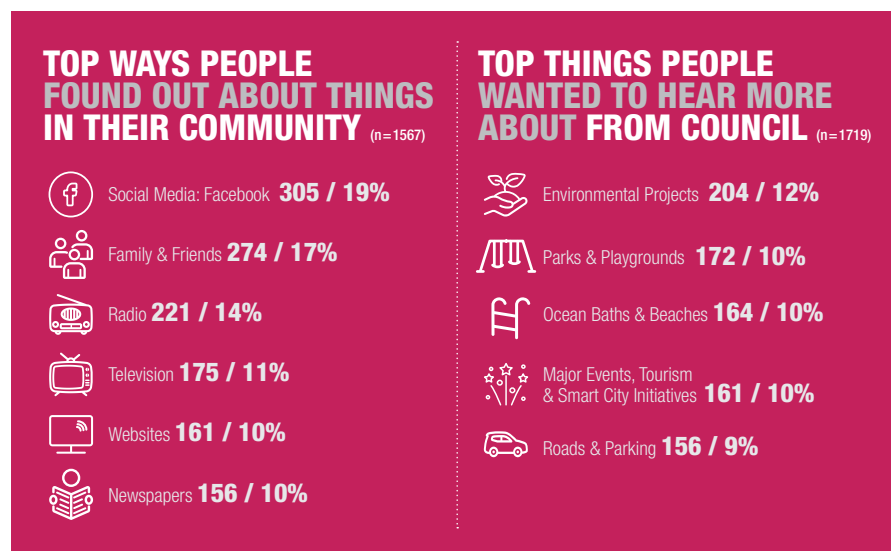
## Working together!

Information Technology and our Corporate Affairs teams worked together to do a significant upgrade of external facing websites– all eight websites on Kentico system were included in the upgrade.

Customers will have a better experience on line including a notable difference in speed. All our websites on Kentico are optimised for use on mobile devices.

## Top ways people find out about

We've been out and about over the past couple of months, at NAIDOC Week celebrations, Wallsend Winter Fair, and Newcastle Pride Fair Day, asking people how they find out what's happening in their community and what they'd like to hear more about from us and here is a summary of the results so far.



## Customer Contact Centre ranked No.1 for phone service

Our Customer Contact Centre was ranked number one in a recent mystery shopping report provided by Lonergan Research after sampling the phone services of 126 councils.

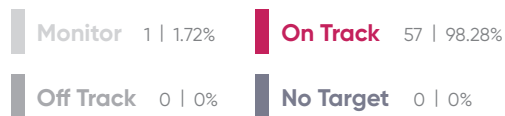
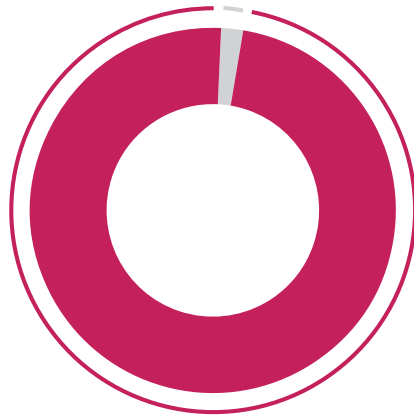
Customer Service Officer (CSO) Jodie Pears scored 100% for the service she provided the mystery shopper over the phone.

The report assessed greeting skills, manner, inquiry resolution and communication. Similar councils scored an average of 91% for telephone service and the state average was 77%.

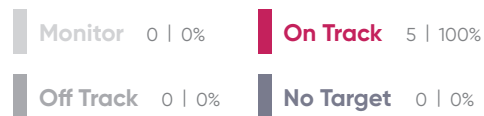
A mystery shopper also visited the CN's Administration Buildings in person and was served by CSO Raelee Graham, whose service scored 93%, ranking us seventh of 79 councils, well above the NSW average of 84%.

# How we performed

## Action Performance



## KPI Performance



## 7.1 Integrated, sustainable long-term planning for Newcastle and the region

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>7.1a Encourage and support long term planning for Newcastle, including implementation, resourcing, monitoring and reporting</b>			
Implement the Integrated Planning and Reporting Framework	Develop and deliver an updated Community Strategic Plan (CSP) in partnership with state agencies, community groups and individuals	Corporate and Community Planning	✓
	Develop and deliver a four-year Delivery Program detailing CN's priorities which are aligned with achieving the objectives of the CSP	Corporate and Community Planning	✓
	Clearly detail and be accountable for the actions taken to achieve the objective of the CSP	Corporate and Community Planning	✓
	Adopt an Operational Plan including a detailed annual budget	Finance	✓
<b>7.1b Ensure long-term financial sustainability through short, medium- and long-term financial planning</b>			
Review and incorporate the financial strategies underpinning all short and medium-term plans into the Long-Term Financial Plan	Ensure the management of CN's budget allocation and funding alternatives are compliant with CN policy and relevant legislation to ensure the long-term financial sustainability of the organisation	Finance	✓
	Improve investment performance of CN's reserves funds within agreed risk	Finance	✓
	Coordinate and update CN's 10 years long term financial plan	Finance	✓

## 7.2 Considered decision-making based on collaborative, transparent and accountable leadership

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>7.2a Conduct Council business in an open, transparent and accountable manner</b>			
Maintain a strong ethical culture and high standard of conduct	Councillors, the CEO and CN's senior staff are expected to demonstrate, through both their words and actions, commitment to that Code of Conduct	Legal	✓
	Education and training for both Councillors and staff to ensure they appropriately understand their governance obligations is important to CN	Legal	✓
Provide open and accessible government information as well as a commitment to the protection of privacy	Making open access information that is required under the GIPA Act to be available on the website	Legal	✓
	Proactively publishing more information on CN's website than is legally required and improve efficient release of information	Legal	✓
	Processing all informal requests for information efficiently and effectively	Legal	✓
	Process all formal access applications within the statutory timeframes and in compliance with the GIPA Act	Legal	✓
<b>7.2b Provide timely and effective advocacy and leadership on key community issues</b>			
Provide a clear line of communications between members of the public and Councillors	Release business papers to members of the public in advance of Council meeting	Legal	✓
	Keep Councillors' contact details available and updated so the public can email or speak to Councillors about issues	Legal	✓
<b>7.2c Establish collaborative relationships and advocate for local needs with all stakeholders</b>			
Develop partnerships and networking with community, government and business	Develop partnerships and networking with community, government and business	Corporate and Community Planning	✓

## 7.3 Active citizen engagement in local planning and decision-making processes and a shared responsibility for achieving our goals

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>7.3a Provide opportunities for genuine engagement with the community to inform Council's decision-making</b>			
Increase opportunities for community input into CN's decision-making processes	Review internal business processes to ensure all projects with high community impact receive appropriate community engagement	Major Events and Corporate Affairs	✓
Raise awareness of the importance of community engagement in decision making	Implement a staff education program	Major Events and Corporate Affairs	✓

Increase profile of community engagement as an integrated function of CN	Review the Community Engagement Policy 2013 for consideration by elected Council	Major Events and Corporate Affairs	✓
Increase engagement with hard to reach groups	Develop targeted engagement strategies to ensure feedback from hard to reach groups is incorporated in CN's decision making	Major Events and Corporate Affairs	✓
Build capacity of the organisation to be able to involve community in decision making	Develop and promote community engagement toolkit	Major Events and Corporate Affairs	✓

### 7.3b Provide clear, consistent, accessible and relevant information to the community

Improve reputation and trust	Develop and implement a Corporate Brand Strategy	Major Events and Corporate Affairs	✓
Provide accessible and inclusive communications	Use a range of methods and channels to ensure broad reach	Major Events and Corporate Affairs	✓
	Utilise options to increase accessibility	Major Events and Corporate Affairs	✓
	Implement guidelines for accessible, clear and easy to read graphic design and publishing	Major Events and Corporate Affairs	✓
	Review web content to comply with Web Content Accessibility 2.0 guidelines	Major Events and Corporate Affairs	✓
Increase CN's digital and social media profile and encourage information sharing online	Develop a Social Media Style Guide that aligns with Corporate Brand Strategy	Major Events and Corporate Affairs	✓
	Produce regular print and electronic communications to inform community about CN activities, events and projects	Major Events and Corporate Affairs	✓
Enhance digital platforms	Conduct website audit or corporate website www.newcastle.nsw.gov.au to review and improve content	Major Events and Corporate Affairs	○
Provide clear and concise communications	Produce regular print and electronic communications to inform community about CN activities, events and projects	Major Events and Corporate Affairs	✓
Planned and proactive communications	Advise, implement and deliver effective communication plans and products to promote our activities and services	Major Events and Corporate Affairs	✓

### Community Objective: 7.4 A local government organisation of excellence

Delivery Program objective	Operational Plan Action 2018/19	Responsibility	Status
<b>7.4a continuous improvement in services delivery based on accountability, transparency and good governance</b>			
Develop a culture of continuous improvement across CN	Continually improve of our policies and processes to increase the efficiency and effectiveness of service delivery	Legal	✓



Provide the community with easy to understand and meaningful information about performance of CN	Annual Report and Six-monthly progress report on the Delivery Program	Corporate and Community Planning	✓
<b>7.4b Provide services that deliver on sustainable community service expectations</b>			
Ensure Asset Management Strategy and Plans capture community service expectations	Integrate business practices with service reporting and review of Service Asset Plans	Corporate and Community Planning	✓
<b>7.4c Provide the Community with a personalised and responsive customer service</b>			
Provide our customers with simple and convenient ways to access and do business with CN	Ensure the community can access CN by phone, email and mail easily and without undue delays or effort	Customer Service	✓
	Explore new channels for interaction with CN	Customer Service	✓
	Review and improve forms, letters and communications that CN sends to members of the community to ensure that they are respectful, clear and easily understood	Customer Service	✓
Ensure that the customer experience with the Libraries is a consistent and positive one across all channels of communication - in person, over the phone and online	Improve the customer request for purchase forms on the Library Management Database to ensure plain English and easy to access	Libraries and Learning	✓
<b>7.4d Maintain high quality workforce that is committed to delivering on CN's vision and goals</b>			
Attract and retain a high quality, committed workforce	Create a positive induction/on boarding experience	People and Culture	✓
	Develop and implement an improved salary system and progression framework and recognition of critical roles	People and Culture	✓
	Communicate and progress CN's Employee Value Proposition	People and Culture	✓
Invest in the capabilities of our people	Develop and implement a performance management framework including identification of career paths and access to development opportunities	People and Culture	✓
	Invest in leadership development for both current and future leaders	People and Culture	✓
Facilitate a culture of Cooperation, Respect, Excellence and Wellbeing	Continued investment in activities to enhance our organisational culture and build courage, trust and pride	People and Culture	✓
	Review reward programs and opportunities for recognition that highlight the important work CN does	People and Culture	✓
	Design, develop and implement a holistic Wellbeing Strategy	People and Culture	✓

Plan for our future workforce needs	Expand and align annual vocational/ tertiary program recruitment to critical roles and retirement trends	People and Culture	✓
	Develop and implement transition to retirement arrangements to facilitate knowledge transfer	People and Culture	✓
Continue to develop our safety culture	Develop opportunities for improved return to work processes and collaborative inclusion	People and Culture	✓
	Develop opportunities for Work Health and Safety (WHS) mobility and ease of user access. Establish dynamic WHS Statistical reporting	People and Culture	✓
	Ensure our mandatory training requirements are continuously met	People and Culture	✓

**7.4e Support the community and the organisation through improved IT services that meet community needs**

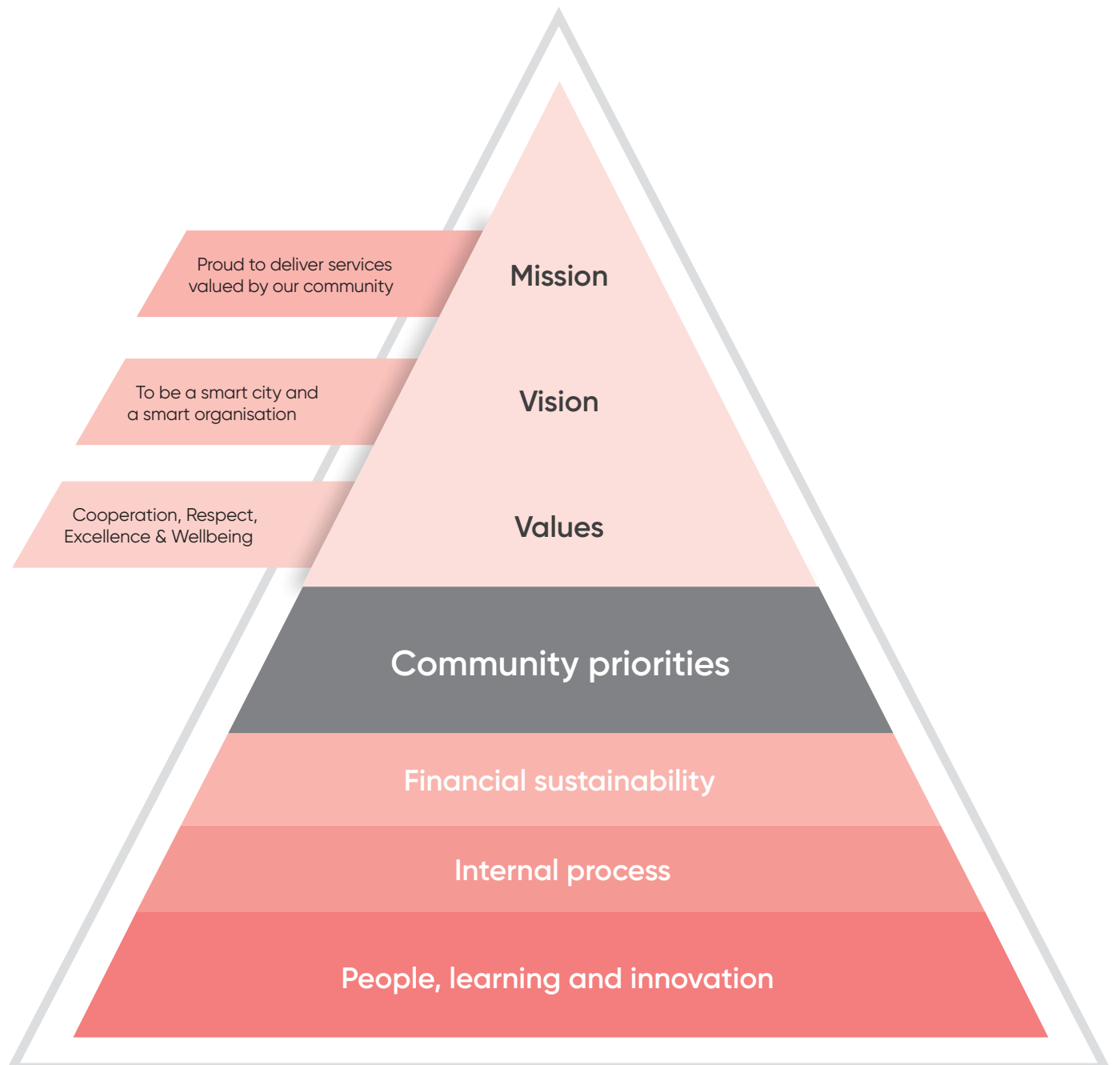
Focusing on delivering valuable services to the customer by driving seamless and effective customer engagement across multiple channels and changing into a regional information hub	Continue to meet the needs of our customers in regard to our apps and CN's interfaces	Information Technology	✓
Establishing a sustainable, high performing organisation that leverages technology to enable a modern and agile workforce and translates data into actionable insights to optimise business operations	Next Generation Information and Communication Technology operating model	Information Technology	✓
	Governance for information and technology	Information Technology	✓
	Continue to be a Geographic Information Systems leader	Information Technology	✓
Setting a strong foundation in information and communication technology governance, weaving into all areas of CN as a reliable business partner and facilitating new opportunities for technology transformation	Data ownership and governance model	Information Technology	✓
	Review OneCouncil implementation	Information Technology	✓
	Establish integration framework	Information Technology	✓
Proactively identifying and exceeding customer expectations of the future through driving agility and connectivity, and ultimately supporting the evolution of Newcastle into one of the leading local governments nationally	Implement Smart City technology foundation	Information Technology	✓



# Smart Organisation

Our mission, vision and values are represented by the below pyramid. This shows that our people are our foundation and backed with strong financial sustainability and robust internal processes we have an organisation proud to deliver services valued by our community.

**To make sure CN is in the best position to meet the community priorities and be a smart city, we need to be a smart organisation.**



# Valuing our people, learning and innovation

## 1.1 Develop a Total Value Proposition

Total Value Proposition developed and utilised in attracting talented candidates

---

Reduction in number of positions readvertised per annum

---

Increase in number of suitable applicants for advertised positions.

---

Recruitment Specialist commenced on 29 January 2019. This position will focus on developing a Total Value Proposition on the back of the new Enterprise Agreement (EA) 2019.

## 1.2 Create a positive induction/on boarding experience

Process reviewed and updated

---

Improvement in new starter survey results

---

Reduction in turnover for <1year service.

---

Launching Myjoboffer, an online onboarding tool scheduled for early 2019.

## 1.3 Develop and implement an improved salary system including progression framework and recognition of critical roles

Salary system developed and implemented

---

Critical roles reviewed annually in line with the corporate planning processes.

---

Introductory meeting held with relevant parties to commence

Salary System Review as part of CN's new EA.

## 1.4 Develop and implement an improved performance and development system including recognition mechanism for high performers

Performance Development framework developed and implemented

---

Increase in the number of Performance Development plans completed per annum.

---

The development of a new performance program will commence in 2019 together with a review of a new salary system to ensure both initiatives are linked.

## 1.5 Improve employee access to flexible work arrangements

Increase in number of staff accessing flexible work arrangements

---

Reduction in number of sick days taken annually.

---

New EA to commence on 14 January 2019. Initial implementation will need to be measure over the next six (6) months.

## 1.6 Relocation of the City Administrative Centre to a new high-performance building

Relocation complete and workforce mobility and engagement improved

---

Reduction in staff turnover

---

Improved cross organisational collaboration and workplace culture.

---

Change leadership program commenced in 2018 and is continuing into 2019 to support the relocation in 2019. Dedicated Paperlite days have commenced and will continue throughout 2019.

## 1.7 Review and update position descriptions to ensure role clarity and capacity to meet future demands

Percentage of position descriptions updated and evaluated.

---

A review of position descriptions will occur through the salary system and performance development projects underway in 2019. In the interim, position revaluations will occur only on critical roles that will require changes as part of the Service Unit Plan approval process.

## 1.8 Review use of contingent labour to address short term needs and provide job security for permanent staff

Reduction in expenditure on contingent labour

---

Consistent reporting on Full time Equivalent (FTE), costs and productivity efficiencies

---

Synergies created through collaborate effort across service units on staff needs and utilisation.

Monthly reporting on contingent labour is being used across CN and continual review of FTE costs.

## 2.1 Develop and implement a succession planning framework for critical (and emerging), roles and retirement planning

Succession planning framework developed and implemented

---

Percentage of identified critical roles with formal plans in place >80%.

---

Due to commence in 2019

## 2.2 Develop and implement an improved performance and development framework including identification of career paths and access to development opportunities

Performance Development framework developed and implemented

---

Percentage of performance plans completed per annum >75%.

---

Due to commence in 2019.

### 2.3 Develop and implement training to support the introduction of new and emerging technologies

Training needs assessed, and programs developed implemented.

---

A new Learning Management System was implemented in Sept 2018. This new system will allow Training and Learning to collect skills profiles on positions across the business and undertake a training needs analysis.

Skill Profile collection has commenced with a completion date of January 2020.

### 2.4 Facilitate the introduction of mentoring arrangements

Mentoring program(s) implemented across key diversity groups.

---

Mentoring program commenced in 2018 as part of the Aboriginal Employment Strategy.

### 2.5 Invest in leadership development for both current and future leaders

Continued participation in Blue Bus Edge and Blueprint programs

---

Leadership capability framework developed and implemented.

Tender commenced in 2018 for the continuation of the culture program including Blue Bus and leadership development.

Funding via the NSW Local Government Skills Strategy has resulted in Training and Learning offering the Blue Print program to 24 x Level four and Level five employees to commence in Feb 2019.

Funding has also been secured for 20 participants in the inaugural LEAD Program targeting Level four and Level three Managers, commencing in March 2019.

### 3.1 Continued investment in activities to enhance our organisational culture and build courage, trust and pride

All new starters participate in the Blue Bus program within six months of commencement

---

Implementation of additional Blue Bus initiatives to support organisational redesign and relocation

Tender commenced in 2018 for the continuation of the culture program including Blue Bus and leadership development.

New culture program will be introduced from March 2019.

### 3.2 Implement our Diversity Management Plans, (Aboriginal & Equal Employment Opportunity Employment Strategy, Reconciliation Action Plan, Disability Access & Inclusion Plan) through integrated actions

Actions from plans reviewed and integrated to capture synergies before implementation

---

Report outcomes through Corporate Planning cycles.

---

Aboriginal Employment Strategy endorsed in 2018.

From January 2019 CN becomes a member of the Pride and Diversity Program.

### 3.3 Design and implement a health and wellbeing strategy

Strategy developed

---

Recommendations and actions endorsed for annual implementation

---

Reduction in average sick leave per annum

---

Reduction in injury rate per annum

---

Explore training initiatives for emerging issues such as domestic violence and mental health wellbeing.

---

Health and Wellbeing Strategy to be developed following the appointment of a Wellbeing Co-ordinator within the WHS Team. Wellbeing Co-ordinator appointed and will commence in February 2019.

Mental Health Awareness (MHA) training was conducted across the organisation in September 2019. A survey conducted following this training indicated that the training was well received, and further MHA training scheduled to occur in 2019.

### 3.4 Continue to develop our safety culture

Develop opportunities for improved return to work processes and collaborative inclusion.

---

Develop opportunities for WHS mobility and ease of user access. Establish dynamic WHS statistical reporting

---

Ensure our mandatory training requirements are continuously met.

---

WHS Injury Management Advisor will be developing and conducting Supervisor / Manager / Director Workers Compensation Training Sessions.

Mobility will be launched towards the end of February/early March 2019 in conjunction with IT.

Discussions have been undertaken recently with Director Governance and Director City Wide Services regarding establishing a Directorate level report.

WHS is continually working with Training & Learning to ensure that Mandatory Training is scheduled.

### 4.1 Align annual vocational/tertiary program recruitment to critical roles and retirement trends identified in this plan

Increase in participation of in accordance with programs

---

Maintain or improve current participant retention rates post training completion

---

Targeted placements aligned to critical roles.

---

Current participation rates have been maintained with a recruitment of six (6) new Civil Construction Apprentices to commence in January 2019; and one new Arborist Apprentice to commence in the City Greening team in January 2019.



#### **4.2 Review FTE requirements and critical roles annually as part of the corporate planning process**

Annual review conducted for alignment

---

Improved reporting in collaboration with corporate planning and analysis.

---

Discussion with new Corporate and Community Planning Team to commence in 2019.

#### **4.3 Develop and implement transition to retirement arrangements to facilitate knowledge transfer**

Identify opportunities and options based on work place locations

---

Develop strategies with management and staff to empower employees

---

Process developed within priority service units as a pilot.

---

CN's new EA 2019 highlights CN's aging workforce and the opportunities through flexible work practices to make this more accessible to our employees.

#### **4.4 Review true vacancies regularly to offer opportunities and flexible options for critical emerging and development roles**

Undertake environmental scans on labour and workforce trends to keep abreast of changes

---

Review critical roles with relevant service units regularly in terms of vacancies and skill gaps.

---

This action is being implemented in line with changes to Service Unit Plans as part of the organisation design implementation. This will continue through 2019.

# Strong internal processes

## Engagement

We launched a new Quarterly Community Survey program in August 2018. This program provides ongoing opportunity for community feedback on our facilities and services as well as more responsive and timely feedback to assist with planning and decision making. Each topic has a different theme to allow for a broad range of topics to be canvassed. Two iterations of the survey were run over the six-month period, both of which attracted approximately 800 participants each, a fabulous response.

A snapshot of some of the feedback we received on our facilities and services are shown below. The full reports from both surveys are available on our website at:

<http://www.newcastle.nsw.gov.au/Quarterly-Community-Survey>.

 <ul style="list-style-type: none"><li># Cleanliness of beaches and beach facilities</li><li># Beach access ways to beaches and beach facilities</li><li># Cleanliness of streets and public areas</li><li># Cleanliness of public parks</li><li># Maintenance of public parks</li><li># Bathers Way upgrades</li></ul>	 <ul style="list-style-type: none"><li># Availability of shaded areas, picnic facilities and seating at inland pools</li><li># Condition of ocean baths and facilities</li><li># Condition of footpaths</li><li># Shade provided in parks and playgrounds</li><li># Connectivity of cycle routes</li></ul>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

We have also been out and about at NAIDOC Family Fun Day, Newcastle's inaugural Pride Fair and Wallsend Winter Fair talking to people about the types of things they would like to hear more about from CN and how they primarily find out about things happening in their community.

The Newcastle community was actively engaged across a range of projects in the second half of 2018. Projects where the community had the opportunity to have their say include:

[Dogs in Open Spaces Strategy](#)

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[Quarterly Community Survey](#)

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[City Marketing and Engagement Strategy](#)

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[Quarterly Customer Service Survey](#)

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[Water Safety Survey](#)

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[Community Engagement Policy](#)

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[Carrington Greenspace Concept Plan](#)

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[Pin the City's Art mapping project](#)

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[Darby Street Parking Study](#)

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[Community Facilities Strategy](#)

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[Stevenson Park Masterplan](#)

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[Bathers Way – Newcastle Beach project](#)

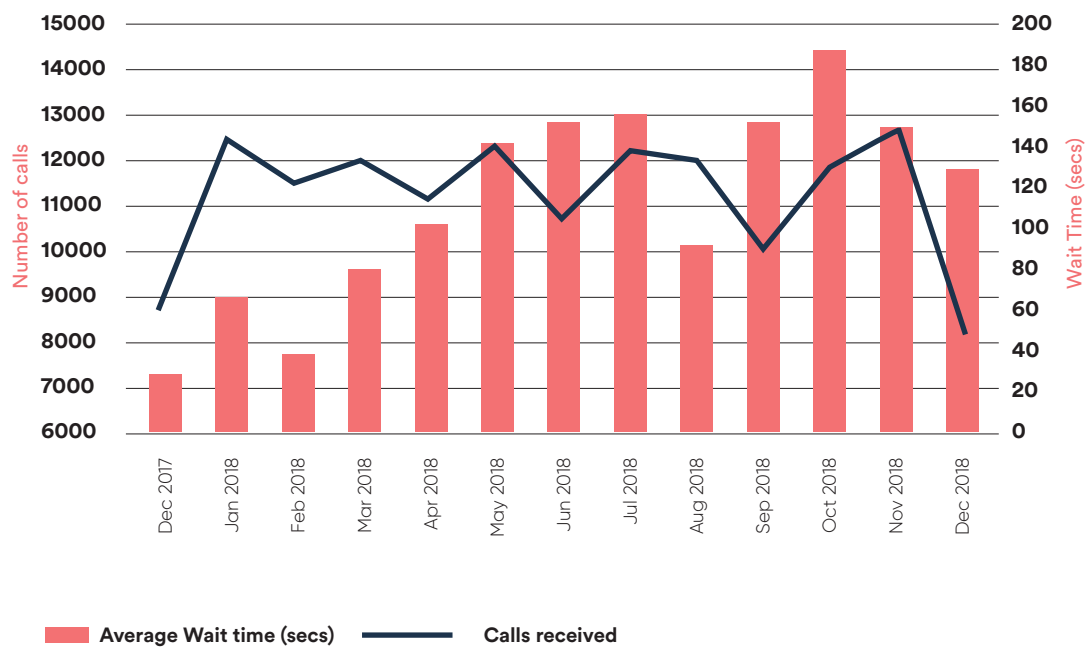
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Our Engagement Team is continuing to expand our engagement reach; trialling new and innovative ways to obtain community feedback to determine local priorities and understand issues facing Newcastle residents.

# Customer Service

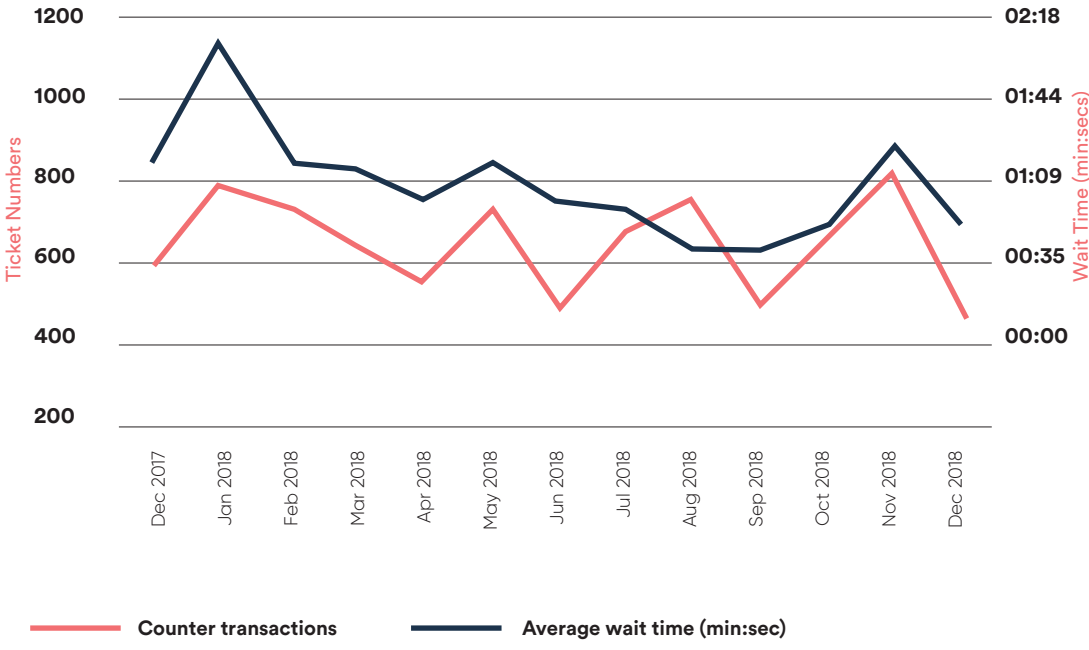
Customer Service	
Overall calls received	66,639
Average wait time (sec)	143
Average handle time (sec)	397
Service Level/GOS	42.5%

## Phone performance



Counter Performance	
Overall transactions	3,893
Average wait time (Min:sec)	01:12
Average service time (Min:sec)	15:18
Customers served under five mins	92.8%

### Counter performance



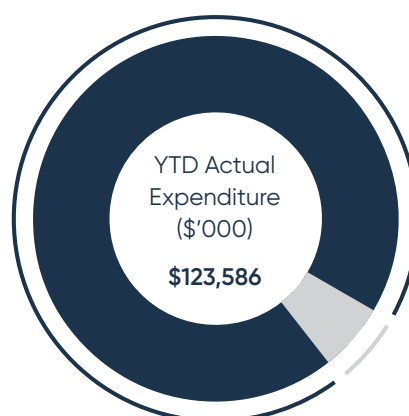
# Making financial sustainable decisions

## December 2018 Operating Expenditure

YTD budget expenditure (\$'000)

**\$131,732**

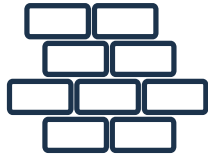
Variance -6% Actual 123,586



## Income Statement - Result for the financial period ending 31 December 2018

Full Year Budget		YTD Budget	YTD Actual Result	Variance (\$)	Variance %
\$,000		\$,000	\$,000	\$,000	\$,000
<b>Income from Continuing Operations</b>					
167,802	Rates & charges	83,281	83,281		0%
78,797	User charges & fees	38,175	39,082	907	2%
9,632	Interest	4,903	5,222	319	7%
10,692	Other operating revenues	5,285	5,786	501	9%
15,755	Grants & contributions - Operating	4,697	4,824	127	3%
9,084	Grants & contributions - Capital	5,485	5,394	(91)	-2%
<b>291,762</b>	<b>Total Income from Continuing Operations</b>	<b>141,826</b>	<b>143,589</b>	<b>1,763</b>	<b>1%</b>
<b>Expenses from Continuing Operations</b>					
102,141	Employee costs	49,499	48,106	(1,393)	-3%
3,874	Borrowing costs	1,940	1,940		0%
74,685	Materials & contracts	33,610	26,368	(7,242)	-22%
41,276	Depreciation & amortisation	20,637	20,637		0%
52,208	Other operating expenses	24,877	25,366	489	2%
2,010	Net loss from disposal of assets	1,169	1,169		0%
<b>276,194</b>	<b>Total Expenses from Continuing Operations</b>	<b>131,732</b>	<b>123,586</b>	<b>(8,146)</b>	<b>-6%</b>
<b>15,568</b>	<b>Total Operating result from Continuing Operations</b>	<b>10,094</b>	<b>20,003</b>	<b>9,909</b>	<b>98%</b>
<b>6,484</b>	<b>Net operating result before capital items</b>	<b>4,609</b>	<b>14,609</b>	<b>10,000</b>	<b>217%</b>

## Our capital works expenditure



**\$5.8 million**

Buildings and structures places

Includes work on City Hall facade, sporting oval lights and installation of four playgrounds



**\$6.8 million**

Non infrastructure projects

Information technology, fleet replacement, minor capital and strategic projects



**\$5.2 million**

Environment

Storm water pits, major renewal of seawalls and associated dune repairs, tree replacement, bushland rehabilitation and vegetation management



**\$6.9 million**

Roads

We have been working on improving roads, drainage, kerbs and gutters across the city



**\$1.7 million**

Transport

Includes cycleways, local area traffic management, parking infrastructure and Pedestrian access and mobility plan



**\$1.5 million**

Stormwater

Flood planning and stormwater systems

# Special Rate Variation

## 2012 Special Rate Variation

In 2012, we successfully applied for a section 508(2) special rate variation (SRV) of 5% above the rate cap for one year. The variation occurred in the 2012/13 financial year increasing the base rate charge. The 2012 SRV was granted for works of a capital nature for specific projects, these are outlined below. Since the introduced in July 2012 the special rate has raised \$34.8. This revenue is placed in a restricted reserve to fund the projects outlined in the SRV application only.

Over \$1.3 million has been spent this financial year with a further \$1.4million to be spent in the remainder of the year on the top four priority projects with most of funding being used for coastal revitalisation.

In total \$55.9 million has been spent on these capital projects since the introduction of the one off 2012 SRV.

## 2012 SRV Priorities Projects

City Centre Revitalisation

Revitalising our coast

Upgrading Blackbutt Reserve

Providing new cycleways

Improving our swimming pools

Modernising our libraries

Expanding our Art Gallery

## 1 July - 30 December 2018

Priority	2012 SRV	Budget \$'000	Actual spend to Dec 2018 (\$'000)
1	City Centre Revitalisation	688	380
2	Coastal Revitalisation	915	362
3	Blackbutt Reserve	496	441
4	Cycleways	698	183
	<b>Total</b>	<b>2,797</b>	<b>1,366</b>



## **2015 Special Rate Variation**

The 2015 SRV was approved by the Independent Pricing and Regulatory Tribunal (IPART) in May 2015 for a SRV over five years to 2019/2020. For 2018/19 our SRV was 6.7% above the rate peg, this is our fourth year of the 2015 SRV.

This revenue provided by the 2015 SRV has been critical to ensure CN achieves financial sustainability. The majority of these funds have helped fund a sustainable asset renewal program and the remainder applied to improving our services and associated assets.

2018/19 is CN's fourth year of the 2015 SRV.

[newcastle.nsw.gov.au](http://newcastle.nsw.gov.au)

**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
ADOPTION OF AMENDMENT TO NEWCASTLE DCP 2012 - SECTION 6.02  
HERITAGE CONSERVATION AREAS**

- Attachment A:** Draft Section 6.02 Heritage Conservation Areas (for adoption) and amendments to Section 9 Glossary
- Attachment B:** Draft Section 6.02 Heritage Conservation Areas (for exhibition) and amendments to Section 9 Glossary
- Attachment C:** Court Case Extract Nisbet v Newcastle City Council
- Attachment D:** Comparison of definition changes from the Heritage Technical Manual September 2014, Review of HCAs Final Report June 2016 and Draft Section 6.02 HCAs (for exhibition)

**DISTRIBUTED UNDER SEPARATE COVER**

**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
ADOPTION OF AMENDMENT TO NEWCASTLE DCP 2012 - SECTION 6.02  
HERITAGE CONSERVATION AREAS**

**Attachment A:** Draft Section 6.02 Heritage Conservation Areas (for adoption) and amendments to Section 9 Glossary

## 6.02 Heritage Conservation Areas

Draft

### Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Type
1	24/07/2018	12/11/2018	New
2	TBC	TBC	Amended

### Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined taking into consideration the provisions of this section.

### Land to which this section applies

This section applies to land shown as *Heritage Conservation Area* on the Heritage Map of Newcastle Local Environmental Plan (LEP) 2012 and described in Schedule 5 of Newcastle LEP 2012.

### Development (type/s) to which this section applies

This section applies to all development.

### Applicable environmental planning instruments

The provisions of the following listed environmental planning instruments also apply to development applications to which this section applies:

- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy 64 – Advertising Signage.

In the event of any inconsistency between this section and the above listed environmental planning instruments, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: Section 74E (3) of the *Environmental Planning and Assessment Act 1979* enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

### Related sections

The following sections of this DCP **may** also apply to development to which this section applies:

- 5.04 Aboriginal Heritage
- 5.05 Heritage Items
- 5.06 Archaeological Management.

## Associated technical manual/s

This section should be read in conjunction with the:

- *Technical Manual Heritage*, Updated September 2014, Newcastle City Council.

## Additional information

- *A Pictorial Guide to Identifying Australian Architecture: styles and terms from 1788 to the present*, R. Apperly, R. Irving and P. Reynolds, 1994, Sydney.
- *Altering Heritage Assets*, Heritage Office and Department of Urban Affairs & Planning, 1996, Sydney.
- *Architecture Newcastle: A Guide*, Barry Maitland and David Stafford, 1997, University of Newcastle and RAI.
- *Assessing Heritage Significance*, 2001, NSW Heritage Office Sydney.
- *California Bungalow in Australia*, Graeme Butler, 2003, Lothian Books.
- *Colour Schemes for Old Australian Houses*, Evans, I., Lucas, C., & Stapleton, I., 2004 & 1984, Flannel Flower Press.
- *Conservation Areas*, 1996, Heritage Office and Department of Urban Affairs & Planning.
- *Design in Context; Guidelines for Infill Development in the Historic Environment*, 2005, Heritage Office & RAI NSW Chapter.
- *Federation Architecture Guidelines*, 1982, Trevor Howells for Heritage Council of NSW.
- *Matters of National Environmental Significance - Significant Impact Guidelines 1.1 EPBC Act 1999*, 2013, Department of the Environment.
- *More Colour Schemes for Old Australian Houses*, Evans, I., Lucas, C., & Stapleton, I., 2008 & 1992, Flannel Flower Press.
- *Photographic Recording of Heritage Items Using Film or Digital Capture*, 2001, revised 2004, 2006, Heritage Office.
- *Salt attack and rising damp: A guide to salt damp in historic and older buildings*, 2008, NSW Heritage Council with Heritage Victoria, South Australian Department for Environment and Heritage and Adelaide City Council.
- *State Heritage Inventory* [www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx](http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx)
- *Statements of Heritage Impact*, 1996, revised 2002, Heritage Office & Department of Urban Affairs & Planning.
- *Technical Notes* [www.environment.nsw.gov.au/Heritage/conservation/techadvice.htm](http://www.environment.nsw.gov.au/Heritage/conservation/techadvice.htm)
  - Commercial Limewashes
  - Repointing Lime Mortar Joints — some important points
  - Treating Biological Growths on Historic Masonry
  - Cracking of buildings due to shrink/swell in clay soils
  - Drought Related Cracking of buildings
- *The Burra Charter - The Australia ICOMOS Charter for Places of Cultural Significance*, Australia ICOMOS, 2013, A.C.T.
- *The Conservation Plan - A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*, J.S. Kerr, Australia ICOMOS, 2013, A.C.T.

## Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 - Glossary, of this plan, and include:

- **The Act** - the Environmental Planning and Assessment Act 1979
- **Allotment** - the legal parcel of land which has been created via subdivision and registered with the Land Property Information service, normally having a Lot Number and Deposited Plan (ie Torrens Title subdivision).
- **Alter** - in relation to a heritage item, or to a building or work within a heritage conservation area, means:
  - (a) make structural changes to the outside of the heritage item, building or work; or
  - (b) make non-structural changes (other than maintenance) to the detail, fabric, finish or appearance of the outside of the heritage item, building or work.
- **Architectural character** - includes massing, articulation, composition of building elements, material use and details including building entrances, fenestration, balconies and balustrades, awnings, planters, pergolas, boundary walls, fences etc.
- **Awning** - is a predominantly horizontal structure that projects over a footpath from the host building to provide weather protection for pedestrians.
- **Balcony** - is an open area, not being an enclosed room or area, attached to or integrated with and used for the exclusive enjoyment of the occupant or occupants of a dwelling.
- **Building elements** – doors, windows, gutters, downpipes, chimneys, walls, shopfronts, roofs, and stairs.
- **Building envelope** - the volume of the building on its site.
- **Building line** or **Setback** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Bulk** – the total effect of the arrangement, volume, size, and shape of the building.
- **Character** – the combination of the individual characteristics or qualities of a neighbourhood, precinct or street.
- **Conservation** - all of the processes of conserving a place to retain heritage significance.
- **Conservation management plan** - refer to 'Heritage conservation management plan'.
- **Contributory building** – a building that is associated with a significant historical period, substantially intact; and a building associated with a significant historical period, altered yet readily identifiable.
- **Contributory buildings map** - means a map of the heritage conservation area which identifies buildings and sites as being contributory, neutral or non-contributory. Refer to the Contributory Buildings Maps of the *Technical Manual Heritage*.
- **Contributory item** - a feature, including a building, work, relic, tree or place within a conservation area which in the opinion of the Council has cultural significance and whose loss would be detrimental to the overall heritage significance of the conservation area.
- **Curtilage** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Demolish** – has the same meaning as in the Newcastle Local Environmental Plan 2012.

- **Fabric** – the physical material of the place (including the building, site or area).
- **Facade** – the exterior walls of a building.
- **Facadism** – the practice of demolition of a building, retaining only the facade.
- **Fenestration** - arrangement of windows and other patterns on a building.
- **Fine grain** - a variety of different land uses in proximity to one another or a series of narrow building elements as opposed to a large consolidated land use or a broad, unbroken building form.
- **Form** – the overall shape and parts of the building.
- **Heritage Act 1977** - an Act of the NSW Parliament providing for conservation orders and other controls over items having heritage significance. The Act is administered by the Heritage Council of NSW.
- **Heritage buildings, sites and elements** – heritage items (including landscape and archaeological items, and building elements), buildings, works, relics, trees and sites within heritage conservation area and heritage streetscapes.
- **Heritage conservation area** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage conservation management plan** – also includes "Conservation Management Plan" - a document prepared to conform with the publication *The Conservation Plan; a guide to the preparation of conservation plans for places of European cultural significance*, J.S.Kerr, Australia ICOMOS, 2013, ACT, and has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage Council of NSW** - the NSW Government's heritage advisory body established under the Heritage Act 1977. It provides advice to the Minister for Heritage and others on heritage issues. It is also the determining authority for s.60 applications.
- **Heritage impact statement** - also includes "Statements of Heritage Impact" – a document that conforms to the standards contained in the NSW Heritage Branch publication *Statements of Heritage Impact, 1996, revised 2002*, and has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage management document** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage item** - has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage significance** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Host building** – the existing building on the land that is the subject of an alteration or addition.
- **In the vicinity** – the surrounding context, environment or setting of a heritage item.
- **Infill development** – a new building in an established neighbourhood or precinct.
- **Intactness** – the degree of original elements, or elements from a significant period of development, which demonstrate the heritage significance of the building or group of buildings.
- **Internal fabric** – the interior fittings such as fireplaces, ceilings, joinery, walls, lifts, galleries, stairs, hardware and moveable items.
- **Intrusive building** – a building that has a negative effect on the character or heritage significance of a heritage conservation area.



- **Landmarks** - prominent or distinguishing buildings or features by which people orient themselves and identify places within the City.
- **Lot** - refer to 'Allotment'.
- **Maintenance** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Massing** – the size and volume of a building.
- **Nominated State heritage item** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Relic** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Restoration** - means returning the existing fabric of a building or work to a known earlier state by removing accretions or by reassembling existing components without the introduction of new materials.
- **Setback** – refer to 'Building line'.
- **Scale** – the size of a building in relation to its surroundings.
- **Setting** – the context within which a building or structure is situated in relation to the surroundings. For example, buildings, roof scapes, chimneys, valleys, ridges, view corridors, trees, parks, gardens, view corridors, vantage points and landmarks may contribute to the setting of a building.
- **State Heritage Inventory** - is an online database of all statutory listed heritage items and heritage conservation areas in New South Wales including Aboriginal Places, State Heritage Register, Interim Heritage Orders, State Agency Heritage Registers and Local Environmental Plans. Each listing may include a description of the item or area, a Statement of Heritage Significance and recommended management provisions to guide future development. The information is provided by local councils and State government agencies.
- **Statement of environmental effects** - is a document that outlines the environmental impacts of a proposed development and outlines any steps taken to protect the environment and to manage impacts.
- **Streetscape** - means the form, character and visual amenity of the street environment.
- **Verandahs** - located on the ground floor. Commonly seen on terrace houses and bungalows.
- **View** - an extensive or long range outlook towards a particular urban aspect or topographical feature of interest.

## Statements of Heritage Significance and Desired Future Character

- **Summary Statement of Heritage Significance for Cooks Hill Heritage Conservation Area** – Cooks Hill Heritage Conservation Area is culturally significant on a number of levels. As a residential and commercial precinct it is regarded for its special historical character, liveable streetscapes, diverse range of historic residential and commercial buildings and several tree lined streets. The age of the suburb, relative to other suburbs of Newcastle, is apparent in the style and form of buildings and eclectic street layout.

It has a significant visual character comprising buildings which represent all of the common architectural styles including mid 19th century workers' houses and terraces, Federation bungalows, Inter-war cottages and post-war residential flat buildings. A critical mass of contributory buildings, traditional streetscapes, significant trees, sandstone kerb and gutters, artefacts, heritage listed hotels, shops and parklands, gives the suburb a strong sense of place and a distinctive historic identity valued by local residents and visitors.

Cooks Hill is closely associated with the Australian Agricultural Company as part of the original 2000 acre grant owned by the Company. The Company began to sell off parts of Cooks Hill in the 1850s. However, even before that the Company built huts for its workmen and so the area began its life as a mining village in the midst of the Company's railways and mines. When the first land sales did occur, development was rapid along Lake Macquarie Road (Darby Street) and eventually Blane Street (Hunter Street), becoming an extension of the main laid out streets towards the City Centre. The early houses were single and two storey terraces and miners' cottages, both brick and timber. Retailing and hotel keeping flourished as did the population. The area is significant as it reflects the land uses and activities of the AA Company. Its mines, its railways, and the Colliery railway serving the Merewether district, exercise a strong physical presence over Cooks Hill to this day.

- **Desired Future Character Statement for Cooks Hill Heritage Conservation Area** – The character of the Cooks Hill Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Cooks Hill will be preserved, celebrated and maintained through the retention of contributory buildings, the existing subdivision pattern, and elements of visual interest. Elements that are to be preserved include:

- contributory buildings constructed prior to the Second World War
- mature trees in gardens and the public domain
- the former Burwood Coal and Copper Company rail line and bridge abutments at Laman Street
- heritage fences
- sandstone kerbing and guttering
- Victorian era post box on Corlette Street
- pubs and shops on Darby, Union and Bull Streets and
- parks, including Centennial Park, Corlette Street, National Park.

The eclectic character of Cooks Hill will continue to provide residents with a unique and valued sense of place into the future.

**Summary Statement of Heritage Significance for Glebe Road Federation Cottages Heritage Conservation Area** – The Glebe Road Federation Cottages Heritage Conservation Area is important at the local level in demonstrating the principal characteristics of the Federation period and the nature of residential building construction in Newcastle between 1909 and 1915. The narrow window of time in which the precinct developed is significant in providing evidence of the key features of the Federation period including construction and building technologies, fashions and key elements of the Federation style. Those being the single storey scale of these modest detached row of dwellings, a symmetrical street frontage, set close to Glebe Road and set off side boundaries, open verandah, pyramidal roof form,

hip and gable roofs, bearer and joist construction with lightweight cladding material (weatherboard), and the absence of garaging with provision for parking occurring at the rear accessed via side driveways. The uniformity of the group in terms of architectural style, age, height, form, massing, setbacks, materials, and lack of obvious garaging contributes to defining the character.

The house at 55 Glebe Road has associative significance with a prominent individual, being the home of RJ Kilgour, a past Mayor of Merewether, and whose son was the first to enlist locally in 1915 for the First World War. The group of houses itself has associational significance with the Australian Agricultural Company, and the south east boundary line abuts the easement of the former Burwood Coal and Copper Company railway line, which was the Merewether Estate's coal haulage line.

- **Desired Future Character Statement for Glebe Road Federation Cottages Heritage Conservation Area** – The character of the Glebe Road Federation Cottages Heritage Conservation Area is made up of the single storey Federation cottages that were built between 1909-1915. The homogenous character of this precinct will be preserved and maintained through the retention of all contributory buildings, elements of visual interest and heritage significance. Elements that are to be preserved include:
  - The building group at 55 to 75 Glebe Road, The Junction, is a fine representative example of a group of intact Federation era cottages which have high contributory value to the streetscape.
  - The urban form which reflects a regular pattern of subdivision and development that dates from the 1900-1920.
  - Side driveways with access to garages and on-site car parking accommodation at the rear of the house group.

Items of heritage significance recommended for individual listing as heritage items in Schedule 5 of the Newcastle LEP.

- **Summary Statement of Heritage Significance for Hamilton Business Centre Heritage Conservation Area** – Hamilton Business Centre Heritage Conservation Area is of heritage significance for its role in the economic and social life of the local Hamilton community. It contains many examples of two storey shops and commercial premises that serve to reflect the various periods of economic growth and social history. The area is representative of the waves of immigration during the 20th century and the eastern European immigrants who came to Newcastle established businesses in the street. Newcastle's earliest examples of Italian and Greek eateries opened on Beaumont Street during the 1950s. The Newcastle Earthquake of 28 December 1989 dramatically changed Beaumont Street. There was widespread damage and loss of life and major social dislocation. However, in terms of the buildings that survived, they were revitalised and many of the two storey shopfronts were saved by judicious planning and urban design. Beaumont Street is now a thriving urban centre with a cosmopolitan character. Many of the buildings have been compromised by unsympathetic signage however, the two storey scale is important in defining the character of the street.
- **Summary Statement of Heritage Significance for Hamilton Residential Precinct Heritage Conservation Area** – The Hamilton Residential Precinct HCA is a low scale, residential area typified by small lot housing of generally one or two storeys, with the character of the area and its streetscapes representative of the late Victorian, Federation and Inter-war periods of Australian urban development. The style of housing - late Victorian terraces and cottages, Federation cottages and bungalows in the popular styles of the time, Italianate, Queen Anne, Edwardian, and California and Spanish Mission influences. In particular, a large number of detached terrace houses, with streets generally comprising of small lot housing, with a traditional street grid nestled adjacent to Hamilton railway station, and general absence of space for vehicle accommodation.

The Hamilton residential precinct represents a pattern of urban settlement that is representative of the gradual urban infill of the Newcastle coal field as mining moved out to the Hunter valley from 1880s until the turn of the 20th century. The urban development in the suburb reflects the gradual release of land by the AA Company, with some houses built as early as 1870. Most of the suburb was released in 1885-1886, and 1900-1920. Hamilton's development between 1880 and 1900 reflects a period of intensive infrastructure investment by the state government, comprising the opening of the railway and train station in 1887. This attracted people to the suburb from the city centre and the style and age of much of the housing stocks reflects this period of growth and development. The Hamilton Residential precinct HCA has special associations with the Australian Agricultural Company, being part of their 2000 acre grant of land in inner Newcastle. The township developed around the lucrative borehole pit, and was named 'Pit Town', with operations at the No 1 pit, No 2 pit, the Hamilton pit and the lucrative D pit on Cameron Hill, all of which were opened up in the late 1840s and 1850s. The enduring legacy of the AA Company is still reflected in the contemporary names of streets, including Lindsay, Denison, Cleary, Everton and Skelton Streets. The smaller lot layout of the present day residential area of Hamilton can be attributed to the manner in which the AA Company released land for sale, the main purchasers being miners and company employees, and also reflects an era of urban development before the widespread use of the motor car, with little provision made for car parking.

- **Desired Future Character Statement for Hamilton Residential Precinct Heritage Conservation Area** – The character of the proposed Hamilton Residential Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Hamilton residential precinct will be preserved and maintained through the retention of contributory buildings, street trees and elements of visual interest and heritage significance. Elements that are to be preserved include:
  - The range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets.
  - Street furniture such as sandstone kerbing and guttering, and other features of historical interest.
  - The urban form which reflects a regular pattern of subdivision and development that dates from the 1890s to the 1930s, and building stock from this period.
  - Prevailing absence of garages and on-site car parking accommodation.
  - Sandstone kerb and gutters and traditional road layout.
  - Items of heritage significance individually listed as heritage items in Schedule 5 of the Newcastle LEP.
  
- **Summary Statement of Heritage Significance for Hamilton South 'Garden Suburb' Heritage Conservation Area** – The Hamilton South 'Garden Suburb' Heritage Conservation Area is significant to the local community for the surviving evidence of an early twentieth century subdivision pattern made up of single dwellings on large 'suburban' style allotments generally over 600 square metres. The precinct has associational significance with the eminent Australian architect and planner Sir John Sulman and as such, its original form is important evidence of his work and ideas. The suburb is one of Newcastle's earliest and largest examples of a planned garden suburb and as such is historically important. The evidence of Sulman's original design is reflected in the road layout, allotment shape and pattern, and form of housing – single storey detached bungalow and cottage style houses, with a consistent palette of face brick and painted weatherboard houses.

- **Desired Future Character Statement for Hamilton South 'Garden Suburb' Heritage Conservation Area** – The character of the Hamilton South 'Garden Suburb' Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Hamilton South 'Garden Suburb' will be preserved and maintained through the retention of contributory buildings, open space, the existing subdivision pattern and maintenance of the 'Garden Suburb' layout, street trees and elements of visual interest and heritage significance such as Parkway Avenue, Learmonth Park, small pocket parks, and the vegetated edges of Cottage Creek. Elements that are to be preserved include:
  - the original dwellings of the 'Garden Suburb' which were built up to 1935
  - the single storey scale of housing stock that is an original defining feature of the 'Garden Suburb'
  - the consistent front and side setbacks including retaining the offsets to side boundaries and keeping front gardens as open space
  - existing subdivision pattern and street layout as evidence of Sulman's 'garden suburb' layout and town plan
  - a strong symmetrical and hierarchical pattern of streets including Parkway, Gordon and Stewart Avenues
  - the existing appearance, form and function of Parkway Avenue, including the road verges, street trees, bridge abutments at Cottage Creek, and the central median that splits the carriageway into two single lane roads
  - gardens, street trees and public open space including pocket parks at Wilson Place, Corona Street, and elsewhere and
  - the relationship of houses to their gardens and houses to each other.
  
- **Summary Statement of Heritage Significance for Newcastle City Centre Heritage Conservation Area** – The Newcastle City Centre Heritage Conservation Area is significant on many levels. The mix of commercial, retail and civic buildings is a powerful reminder of the city's past, its economic and social history. Historic buildings provide the backdrop to a city of dramatic topography on the edge of the sea and the mouth of a harbour.
 

The pre-1840s buildings in the city are of state significance (Rose Cottage, c1830, Newcomen Club, 1830, parts of James Fletcher Hospital) and share associations with the city's convict origins. Newcastle has a rich archaeological record of national significance, with the potential to yield information about the early convict settlement and early industrial activities. The city area is known to have been a place of contact between colonists and the indigenous population. This evidence is available in historical accounts and in the archaeological record surviving beneath the modern city.

The high numbers of commercial and civic buildings of the 19th and 20th centuries gives the city a rich historic character which is notable and allows an understanding of the importance of the city as a place of commerce, governance and city building. The historical foundation of the city was the discovery and exploitation of coal with good shipping access via a safe and navigable harbour. The town's layout by Surveyor General Henry Dangar in 1828 is still visible in the city's streets, and is an element of historical value, particularly in the vicinity of Thorn, Keightley, Hunter and Market Streets.
  
- **Summary Statement of Heritage Significance for Newcastle East Heritage Conservation Area** – The Newcastle East Heritage Conservation Area is highly significant as a historic landscape that provides a record of the interaction between the natural environment, including the harbour and the sea, and human settlement. It contains important evidence of Aboriginal life in Newcastle East, uncovered during excavations at the Convict Lumber Yard (CLY) and historical archaeological sites. This evidence allows archaeologist to understand the human and environmental history of the precinct.

Throughout its European history the area has been shaped by different activities including being the second penal settlement on the mainland after Sydney (from 1801), the site of the processing and shipping of cedar and coal (CLY), having an important coastal defence installation (Fort Scratchley Historic site), the Nobbys lighthouse and breakwater important to the story of shipping, through to the generation of electricity. The residential area is significant for its consistent streetscapes of two and three storey terrace housing dating from the mid-19th through to early 20th centuries and its housing for workers. There are also examples of single storey detached houses.

The social history of Newcastle East is derived from it being the site of early conservation battles in the 1970s, between developers and conservationists and there are rows of public housing that make this place a community and home for many. It is also an important place of recreation at facilities like the Ocean Baths, Nobbys Beach, and Foreshore Park.

- **Desired Future Character Statement for Newcastle East Heritage Conservation Area –** The character of the Newcastle East Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Newcastle East will be preserved and maintained through the retention of contributory buildings, open space, street trees and elements of visual interest and heritage significance such as the many iconic buildings located in Newcastle East, parks and open space, views and vistas, the unique steep topography and street layout, and the character of the streetscapes including street trees, buildings and the relationship of built elements. Elements that are to be preserved include:
  - the range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets
  - existing subdivision pattern and street layout, including preserving the integrity of laneways
  - street furniture such as sandstone kerbing and guttering, and other features of historical interest such as heritage items, public stairs, lanes, parks, views and vistas
  - the regular and homogenous urban form which reflects a regular pattern of subdivision and development, and building stock from between the 1870s and 1930, demonstrating the gradual urbanisation of a once indigenous landscape
  - the existing appearance of Newcastle East, views outwards to the coastline and harbour, and views into the area from Foreshore Park and the Newcastle coastline and Ocean Baths
  - icon heritage items including the Coal River Precinct, the Nobbys headland and breakwater, Fort Scratchley Historic Site, Convict Lumber Yard and Customs House precinct, the Newcastle Ocean baths, Joy Cummings Centre and other significant groups such as the Lahey Bond Store and Stevenson Place terraces and
  - parks and reserves, including Newcastle beach, Nobbys Beach, and Foreshore Park.
- **Summary Statement of Heritage Significance for The Hill Heritage Conservation Area –** The Hill is of outstanding heritage significance to the City of Newcastle on many levels. It is a significant historic landscape containing numerous heritage items, significant trees, views of the ocean and harbour, and a steep topography that gives it a distinctive character. Its history is multi-dimensional as one of the oldest settled areas and as a place of first European settlement.

There are many significant paintings by early colonial artists including Joseph Lycett, Sophia Campbell and others, depicting European use of the hill area during the first two decades of settlement, and that depict the traditional owners of the area, the Awabakal, living in this area. The Anglican Cathedral and burial ground is situated at the top of the hill. The first railway in Australia was located in this precinct, starting at the AA Coy's A Pit, just off Church Street. The flat bench created for the mine is still visible with the "The Boltons" heritage

group now sitting over the site. The funicular railway is significant as the first in Australia, and it was manually powered by the convict labour force indentured to the Company.

The heritage conservation area is also significant historically for its three AA Coy coal pits, the three earliest private coal mines in Australia, the A Pit, off Church Street, the B Pit, off Swan Street, the C Pit, off Bingle Street, and their remains including the winding house at No 18 Bingle Street (see Item No. 2173981). These sites are of high heritage significance as they brought profound changes to the economic fortunes of the colony after 1828 because a coal export trade gained great momentum. The Cathedral and its burial ground have the potential to reveal through their archaeology information about the convict settlement, and despite the repositioning of the graves, the human remains survive in their original resting places.

The Hill Heritage Conservation Area has a strong sense of place and contains highly intact streetscapes with houses, terraces and villas dating from the mid 19th Century through to the late 20th century. There are several residences which date as far back as the 1850s and Claremont House in Newcomen Street which was built in the 1840s, and these are of particular importance. A remnant stone wall (the remains of the Parsonage at the corner of Newcomen and Church Street) dates between 1818-1820. The sandstone retaining walls are an important historical element in The Hill along with mature trees, gardens, and early roads formations.

- **Desired Future Character Statement for the Hill Heritage Conservation Area** – The character of the Hill Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of The Hill will be preserved and maintained through the retention of contributory buildings, open space, the existing subdivision pattern, street trees and elements of visual interest and heritage significance such as the many iconic buildings located in The Hill, parks and open space, views and vistas, the unique steep topography and street layout, and the character of the streetscapes including street trees, buildings and the relationship of built elements. Elements that are to be preserved include:
  - the range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets
  - sandstone retaining walls, street features such as sandstone kerbing and guttering, and other features of historical interest such as coal shutes, public stairs, lanes, parks, views and vistas
  - the eclectic and organic nature of the urban pattern and varying ages of the building stock that demonstrates the gradual urbanisation during the 19th and 20th century of a once indigenous landscape
  - the existing appearance of the Hill, views outwards to the coastline and harbour and views into the area from the City, foreshore and Stockton which reveal a tree-lined suburb with a steep topography
  - gardens, street trees and public open space and
  - existing subdivision pattern and street layout.

### Aims of this section

1. To provide a framework for the conservation of the special qualities within each of Newcastle's Heritage Conservation Areas - Cooks Hill, Glebe Road Federation Cottages, Hamilton Business Centre, Hamilton Residential Precinct, Hamilton South 'Garden Suburb', Newcastle City Centre, Newcastle East, and The Hill.
2. To define the importance, in heritage terms, of each heritage conservation area by providing a Statement of Heritage Significance and a Desired Future Character Statement that shall be the basis of design development.
3. To ensure that development activity within each heritage conservation area is commensurate with heritage significance and produces good design and liveable streetscapes.
4. To ensure that all development has a positive effect on the character of heritage conservation areas.
5. To provide clarity on the types of alterations and additions acceptable in each heritage conservation area.
6. To ensure that proponents of development refer to the Heritage Technical Manual [and State Heritage Inventory](#) in the design of development proposals.
7. To identify when the adaptive re-use of existing buildings is suitable.
8. To integrate the principles of ecologically sustainable development with best practice heritage management.

### 6.02.01 Alterations and additions

#### Objectives

1. Contributory buildings are retained, recycled and adaptively reused.
2. The architectural style of the host building(s) is reflected in the design of the additions and alterations.
3. Alterations and additions contribute positively to the streetscape and the setting of the host building.
4. Additions are designed to minimise the impact on the special qualities of the streetscape and the architectural style of the host building.
5. Additions are in proportion to the host building and conserve the scale of the building and the street.
6. Additions are not visible from the public domain unless the addition is architecturally outstanding.



## Controls

Note 3: These controls should be read in conjunction with the guidelines provided in the *Heritage Technical Manual*, Updated September 2014, Newcastle City Council and the *State Heritage Inventory* [www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx](http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx)

### Architectural character

1. Additions respect the host building, preserving the significant aspects such as scale, roofscape, building form, external materials, details, and bulk.
2. Roof conversions occur where the host roof is a high pitch and can accommodate rooms largely within the roof volume. Depending on the significance and the style of the building, dormer roof windows to provide light and ventilation are permitted.
3. Wing additions occur at the rear. Roof pitch matches that of the host building with additions constructed in a manner that reflects the detailing of the host building.
4. Pavilion additions and rear additions are the preferred method of extending a building. A contemporary or contrasting form may be used where such additions are not visible from street or other public areas.
5. Two storey pavilions occur where there is no negative impact on the dwelling when viewed as an element in the streetscape; and, where it can be demonstrated that there is no negative affect on adjoining properties.
6. Sloping sites accommodate additions that follow the slope of the land. Such additions should be located at the rear.
7. Additional storey additions that alter the scale of the host building are permitted where an existing single storey building:
  - (a) is not a listed heritage item
  - (b) is surrounded by two to three storey buildings
  - (c) does not negatively affect the building in its streetscape setting
  - (d) does not result in a building of more than two storeys in total height.
8. In semi detached houses and contiguous groups of terrace houses, additions and alterations are only considered if the symmetry of the host building will be maintained.
9. Solar panels are permitted on roof planes facing the street where the host building is not a listed heritage item and where the panels are not visually intrusive.

## 6.02.02 Materials and details in heritage conservation areas

### Objectives

1. Maximise the reuse of existing material on site.
2. Ensure selection of new materials and details compliment the local character.

### Controls

1. A high proportion of the construction material from the host building are recycled and incorporated in the new additions.
2. The proposal builds on the materials, colours and detail seen throughout the area and which reflect the character of local precincts.
3. The materials palette proposed in an alteration and addition reflects the original design and appearance of the host building.
4. Traditional building elements including windows, doors, hardware, chimneys, verandahs, wall surfaces and other characteristic features of the building, are retained and repaired.
5. Sandblasting is not an acceptable method for cleaning unpainted brickwork or remove paint from brick or stone.
6. Lime mortars are replaced by mortars of similar consistency. Expert advice should be obtained for re-pointing and repair work.
7. External colour schemes are complimentary to the heritage conservation area, are based on research, and have regard of the setting.
8. Exposed brickwork, stone, tiles and shingles are not painted or rendered.
9. Repair and replace joinery in profiles matching the original detailing.
10. Where a face brick structure is proposed, this matches the brick colour and texture of the associated dwelling.

## 6.02.03 Accommodating vehicles in heritage conservation areas

### Objectives

1. Minimise the visual intervention of new structures that accommodate vehicles.
2. Maintain the relationship of buildings to the street and to their settings.
3. Maintain the setbacks associated with the heritage conservation area.
4. Produce liveable streetscapes underpinned by the historical character of the conservation area.

### Controls

1. Garages and carports are sited at the rear or behind the building line of the existing house.
2. Additional vehicle crossings in heritage conservation areas are not supported unless the vehicle crossing is to a rear laneway.
3. Where a property has access to a rear lane, vehicle accommodation is located adjacent to the laneway, providing vehicle access from the laneway.
4. Where access to the rear or side of the site is not available, single garages and carports are permitted where demonstrated that the impact on the streetscape or host building is acceptable.
5. Where double garages are proposed at the rear of sites, they are designed with two doors and a pier between them to reduce the horizontal effect of the opening.
6. Car parking where permitted in front of a building, is uncovered.
7. Sandstone kerbing is not to be disturbed.
8. Driveways are designed as concrete or brick strips with grass or gravel in between.
9. Paving materials are terminated inside the property boundary and are not extended into the public domain, unless of a matching colour and treatment.
10. New driveway crossings are to be designed in consultation with Council. All crossings are to be designed to match the colour palette of the site and the neighbouring footway, subject to advice from council staff. Generally plain concrete with a charcoal oxide and trowel finish is to be used where bitumen paving is the predominant paving material.

## 6.02.04 Fences in heritage conservation areas

### Objectives

1. Preserve and protect fences, stone and brick retaining walls and garden settings.
2. Ensure fences within the public domain contribute to the streetscape.
3. Retain and repair surviving original fences.
4. Ensure new fences in the public domain match the details and materials of the adjoining contributory fences or matches the original fence in the case of rebuilding projects.

### Controls

1. Reconstruct missing fences to their previous design based on photographic evidence.
2. Retain, repair and re-instate original and traditional fences and retaining walls.
3. Use traditional materials and designs on front or side boundaries where visible to the street.
4. Retain later fences where they reflect the traditional fence design.
5. Front fences are between 700-1200mm high, to a maximum height of 1500mm, measured from ground level.
6. Front fences extend across the whole of the front boundary of the property, and should incorporate gates where there is a driveway present.

## 6.02.05 Gardens in heritage conservation areas

### Objectives

1. Ensure front gardens are a part of the streetscape.
2. Ensure appropriate landscaping is provided.
3. Retain surviving original garden elements such as lych gates, paths, edging tiles etc.
4. Promote use of traditionally designed gardens that enhance the appearance of historic houses and the streetscape.

### Controls

1. Trees and shrubs are planted within the property boundaries and not on the front verge which forms part of the public domain.
2. The selection of street trees is undertaken by Council.

## 6.02.06 Subdividing or amalgamating land in a heritage conservation area

### Objectives

1. Ensure that subdivision and amalgamation of land in a heritage conservation area is commensurate with the heritage significance of the area, and conserves the important characteristics of the subdivision pattern and allotment layout, streetscape character and notable features of the precinct.
2. Allow for the interpretation of the original pattern of the subdivision pattern in any development proposal.

### Controls

1. Lot boundary changes are not proposed where the development pattern or early subdivision is integral to the heritage significance of the heritage conservation area.
2. Lot boundary changes within heritage conservation areas retains significant features such as buildings, archaeological sites, trees, gardens, and outbuildings associated with the pattern of development of that area.
3. Lot boundary changes to large allotments enables the continuation of the significant or early subdivision pattern of development in the area.
4. Amalgamation of sites in heritage conservation areas provides for the conservation of the fine grain pattern of development associated with the area, where applicable.

## 6.02.07 Infill development in a heritage conservation area

Note 4: These controls should be read in conjunction with the guidelines provided in the *Heritage Technical Manual*, Updated September 2014, Newcastle City Council [and the State Heritage Inventory](#) [www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx](http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx)

All new development in the conservation area should be treated as 'infill', that is, it should respect the design of its neighbours and the character of the area generally. Similar principles are applied to infill development as are applied to alterations and additions, and must begin with an understanding of the design and heritage significance of the buildings to which it relates.

Infill development should not copy or replicate its neighbouring traditional buildings. Rather, it is appropriate to interpret the features of the neighbouring buildings and design them in a way that reflects and respects them.

Where a development application is submitted for infill development, appropriate design advice from an architect or accredited building designer should be obtained. A [heritage impact](#) statement should be written by the design professional to explain the form and style of the proposal and explain how it relates to the heritage conservation area.

## Objectives

1. Infill development respects the design of its neighbours and the character of the heritage conservation area.
2. Infill development achieves a harmony of character; sympathy of scale; appropriateness of form; appropriate orientation and setback, and sympathetic materials and details within heritage conservation areas.
3. Infill development demonstrates a good fit within its setting that respects the neighbouring buildings and the character of the heritage conservation area.

## Controls

### Character

1. The character or style of new buildings relates to the overall character of the area. The design of new buildings should be influenced by the style of buildings within the street and the neighbouring buildings.
2. The character of an infill building harmonises with the style of its neighbours. In particular, the proposed building should avoid becoming a dominant element within the streetscape or being deliberately modern.

### Scale

3. Infill buildings must reflect the general scale of streetscapes within the heritage conservation area. In particular, infill buildings should respect and be similar to the scale of neighbouring contributory buildings in the vicinity.
4. The predominant height of contributory buildings in the street should be used as the starting point for the scale of infill buildings, rather than the highest building in the street (especially where the highest building is non-contributory or intrusive).
5. Consideration must be given to the relative scale of the components of a building. Infill development must be designed with elements that reflect the scale of building elements in contributory buildings. For example, window proportions and the height of major elements such as parapets and eaves lines relative to neighbouring buildings, balustrades and roof lines.

### Form

6. The form of new buildings (i.e. massing and overall bulk) is consistent with the prevailing form of contributory buildings within the heritage conservation area.
7. New development relates to the massing of neighbouring contributory buildings.
8. The roof form, slope and pitch of new development reflects and is respectful of the typical forms of contributory buildings in the heritage conservation area.

### Setbacks and orientation

9. Infill development is setback consistent with the prevailing setbacks in the heritage conservation area. For example, zero lot lines to front boundaries is a development pattern that should be repeated where relevant to the streetscape.

### Materials and details

10. The materials and details of new development are compatible with, but not directly copy, those of contributory buildings in the streetscape.

### Vehicle accommodation

11. Garages and carports are sited at the rear or behind the building line.
12. Where a property has access to a rear lane, vehicle accommodation is located adjacent to the laneway, providing vehicle access from the laneway.
13. Additional vehicular crossings in heritage conservation areas are not supported unless the proposed car-parking is provided at the rear of the site.
14. Where access to the rear or side of the site is not available, single garages and carports are permitted where demonstrated that the impact on the streetscape is acceptable.
15. Where double garages are proposed it is at the rear and does not impact the public domain or appreciation of the character of the heritage conservation area.
16. Sandstone kerbing is not impacted.
17. Paving materials are terminated inside the property boundary and are not extended into the public domain.

**The following terms will be inserted in the Glossary:**

- **Architectural character** - includes massing, articulation, composition of building elements, material use and details including building entrances, fenestration, balconies and balustrades, awnings, planters, pergolas, boundary walls, fences etc.
- **Contributory buildings map** - means a map of the heritage conservation area which identifies buildings and sites as being contributory, neutral or non-contributory. Refer to the Contributory Buildings Maps of the *Technical Manual Heritage*.
- **Heritage Council of NSW** - the NSW Government's heritage advisory body established under the Heritage Act 1977. It provides advice to the Minister for Heritage and others on heritage issues. It is also the determining authority for s.60 applications.
- **Maintenance** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Relic** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Setback** – refer to 'Building line'.
- **State Heritage Inventory** - is an online database of all statutory listed heritage items and heritage conservation areas in New South Wales including Aboriginal Places, State Heritage Register, Interim Heritage Orders, State Agency Heritage Registers and Local Environmental Plans. Each listing may include a description of the item or area, a Statement of Heritage Significance and recommended management provisions to guide future development. The information is provided by local councils and State government agencies.
- **Statement of environmental effects** - is a document that outlines the environmental impacts of a proposed development and outlines any steps taken to protect the environment and to manage impacts.
- **Streetscape** - means the form, character and visual amenity of the street environment.
- **View** - an extensive or long range outlook towards a particular urban aspect or topographical feature of interest.



**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
ADOPTION OF AMENDMENT TO NEWCASTLE DCP 2012 - SECTION 6.02  
HERITAGE CONSERVATION AREAS**

**Attachment B:** Draft Section 6.02 Heritage Conservation Areas (for exhibition) and amendments to Section 9 Glossary

## 6.02 Heritage Conservation Areas

Draft

### Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Type
1	24/07/2018	12/11/2018	New
2	TBC	TBC	Amended
3	TBC	TBC	Amended

### Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined taking into consideration the provisions of this section.

### Land to which this section applies

This section applies to land shown as *Heritage Conservation Area* on the Heritage Map of Newcastle Local Environmental Plan (LEP) 2012 and described in Schedule 5 of Newcastle LEP 2012.

### Development (type/s) to which this section applies

This section applies to all development.

### Applicable environmental planning instruments

The provisions of the following listed environmental planning instruments also apply to development applications to which this section applies:

- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy 64 – Advertising Signage.

In the event of any inconsistency between this section and the above listed environmental planning instruments, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: Section 74E (3) of the *Environmental Planning and Assessment Act 1979* enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

### Related sections

The following sections of this DCP **may** also apply to development to which this section applies:

- 5.04 Aboriginal Heritage
- 5.05 Heritage Items

- 5.06 Archaeological Management.

### Associated technical manual/s

This section should be read in conjunction with the:

- *Technical Manual Heritage*, Updated September 2014, Newcastle City Council.

### Additional information

- *A Pictorial Guide to Identifying Australian Architecture: styles and terms from 1788 to the present*, R. Apperly, R. Irving and P. Reynolds, 1994, Sydney.
- *Altering Heritage Assets*, Heritage Office and Department of Urban Affairs & Planning, 1996, Sydney.
- *Architecture Newcastle: A Guide*, Barry Maitland and David Stafford, 1997, University of Newcastle and RAI.A.
- *Assessing Heritage Significance*, 2001, NSW Heritage Office Sydney.
- *California Bungalow in Australia*, Graeme Butler, 2003, Lothian Books.
- *Colour Schemes for Old Australian Houses*, Evans, I., Lucas, C., & Stapleton, I., 2004 & 1984, Flannel Flower Press.
- *Conservation Areas*, 1996, Heritage Office and Department of Urban Affairs & Planning.
- *Design in Context; Guidelines for Infill Development in the Historic Environment*, 2005, Heritage Office & RAI.A NSW Chapter.
- *Federation Architecture Guidelines*, 1982, Trevor Howells for Heritage Council of NSW.
- *Matters of National Environmental Significance - Significant Impact Guidelines 1.1 EPBC Act 1999*, 2013, Department of the Environment.
- *More Colour Schemes for Old Australian Houses*, Evans, I., Lucas, C., & Stapleton, I., 2008 & 1992, Flannel Flower Press.
- *Photographic Recording of Heritage Items Using Film or Digital Capture*, 2001, revised 2004, 2006, Heritage Office.
- *Salt attack and rising damp: A guide to salt damp in historic and older buildings*, 2008, NSW Heritage Council with Heritage Victoria, South Australian Department for Environment and Heritage and Adelaide City Council.
- *State Heritage Inventory* [www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx](http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx)
- *Statements of Heritage Impact*, 1996, revised 2002, Heritage Office & Department of Urban Affairs & Planning.
- *Technical Notes* [www.environment.nsw.gov.au/Heritage/conservation/techadvice.htm](http://www.environment.nsw.gov.au/Heritage/conservation/techadvice.htm)
  - Commercial Limewashes
  - Repointing Lime Mortar Joints — some important points
  - Treating Biological Growths on Historic Masonry
  - Cracking of buildings due to shrink/swell in clay soils
  - Drought Related Cracking of buildings
- *The Burra Charter - The Australia ICOMOS Charter for Places of Cultural Significance*, Australia ICOMOS, 2013, A.C.T.
- *The Conservation Plan - A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*, J.S. Kerr, Australia ICOMOS, 2013, A.C.T.

## Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 - Glossary, of this plan, and include:

- **The Act** - the Environmental Planning and Assessment Act 1979
- **Allotment** - the legal parcel of land which has been created via subdivision and registered with the Land Property Information service, normally having a Lot Number and Deposited Plan (ie Torrens Title subdivision).
- **Alter** - in relation to a heritage item, or to a building or work within a heritage conservation area, means:
  - (a) make structural changes to the outside of the heritage item, building or work; or
  - (b) make non-structural changes (other than maintenance) to the detail, fabric, finish or appearance of the outside of the heritage item, building or work.
- **Architectural character** - includes massing, articulation, composition of building elements, material use and details including building entrances, fenestration, balconies and balustrades, awnings, planters, pergolas, boundary walls, fences etc.
- **Awning** - is a predominantly horizontal structure that projects over a footpath from the host building to provide weather protection for pedestrians.
- **Balcony** - is an open area, not being an enclosed room or area, attached to or integrated with and used for the exclusive enjoyment of the occupant or occupants of a dwelling.
- **Building elements** – doors, windows, gutters, downpipes, chimneys, walls, shopfronts, roofs, and stairs.
- **Building envelope** - the volume of the building on its site.
- **Building line** or **Setback** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Bulk** – the total effect of the arrangement, volume, size, and shape of the building.
- **Character** – the combination of the individual characteristics or qualities of a neighbourhood, precinct or street.
- **Conservation** - all of the processes of conserving a place to retain heritage significance.
- **Conservation management plan** - refer to 'Heritage conservation management plan'.
- **Contributory buildings** - are buildings that make an important and significant contribution to the streetscape and the character of the heritage conservation area. Contributory buildings are an important resource for the interpretation and understanding of the history and development pattern of the area. Such buildings contribute to the overall heritage value of the area. They have a reasonable to high degree of integrity, highly intact or with reversible alterations, and date from a key development period of significance. They are buildings which are from a:
  - (i) significant historical period layer, highly or substantially intact; or
  - (ii) significant historical period layer, altered yet recognisable and reversible.
- **Contributory buildings map** - means a map of the heritage conservation area which identifies buildings and sites as being contributory, neutral or non-contributory. Refer to the Contributory Buildings Maps of the *Technical Manual* Heritage.

- **Contributory item** - a feature, including a building, work, relic, tree or place within a conservation area which in the opinion of the Council has cultural significance and whose loss would be detrimental to the overall heritage significance of the conservation area.
- **Curtilage** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Demolish** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Fabric** – the physical material of the place (including the building, site or area).
- **Facade** – the exterior walls of a building.
- **Facadism** – the practice of demolition of a building, retaining only the facade.
- **Fenestration** - arrangement of windows and other patterns on a building.
- **Fine grain** - a variety of different land uses in proximity to one another or a series of narrow building elements as opposed to a large consolidated land use or a broad, unbroken building form.
- **Form** – the overall shape and parts of the building.
- **Heritage Act 1977** - an Act of the NSW Parliament providing for conservation orders and other controls over items having heritage significance. The Act is administered by the Heritage Council of NSW.
- **Heritage buildings, sites and elements** – heritage items (including landscape and archaeological items, and building elements), buildings, works, relics, trees and sites within heritage conservation area and heritage streetscapes.
- **Heritage conservation area** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage conservation management plan** – also includes "Conservation Management Plan" - a document prepared to conform with the publication *The Conservation Plan; a guide to the preparation of conservation plans for places of European cultural significance*, J.S.Kerr, Australia ICOMOS, 2013, ACT, and has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage Council of NSW** - the NSW Government's heritage advisory body established under the Heritage Act 1977. It provides advice to the Minister for Heritage and others on heritage issues. It is also the determining authority for s.60 applications.
- **Heritage impact statement** - also includes "Statements of Heritage Impact" – a document that conforms to the standards contained in the NSW Heritage Branch publication *Statements of Heritage Impact, 1996, revised 2002*, and has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage management document** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage item** - has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Heritage significance** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Host building** – the existing building on the land that is the subject of an alteration or addition.
- **In the vicinity** – the surrounding context, environment or setting of a heritage item.
- **Infill development** – a new building in an established neighbourhood or precinct.
- **Intactness** – the degree of original elements, or elements from a significant period of development, which demonstrate the heritage significance of the building or group of buildings.

- **Internal fabric** – the interior fittings such as fireplaces, ceilings, joinery, walls, lifts, galleries, stairs, hardware and moveable items.
- **Intrusive building** – a building that has a negative effect on the character or heritage significance of a heritage conservation area.
- **Landmarks** - prominent or distinguishing buildings or features by which people orient themselves and identify places within the City.
- **Lot** - refer to 'Allotment'.
- **Maintenance** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Massing** – the size and volume of a building.
- **Neutral buildings** – are buildings that do not significantly contribute or detract from the significant character of the heritage conservation area or streetscape. Buildings that do not belong to a key period of significance, sympathetic contemporary development or infill that sits well within the streetscape, and development from a key period of significance which has been irreversibly altered, are identified as neutral. They are buildings which are from a:
  - (i) significant historical period layer, altered in form, unlikely to be reversed;
  - (ii) new sympathetic layer or representative of a new layer; or
  - (iii) non significant historical period layer.
- **Nominated State heritage item** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Non-contributory buildings** - are buildings that are intrusive to the streetscape of a heritage conservation area because of inappropriate scale, design, bulk, setbacks, setting, roof treatment, atypical garage arrangements or materials. They do not represent a key period of significance, detract from the character of a heritage conservation area, and are suited to redevelopment. They are buildings which are:
  - (i) new detracting development; or
  - (ii) other detracting development.
- **Relic** – has the same meaning as in the Newcastle Local Environmental Plan 2012.
- **Restoration** - means returning the existing fabric of a building or work to a known earlier state by removing accretions or by reassembling existing components without the introduction of new materials.
- **Setback** – refer to 'Building line'.
- **Scale** – the size of a building in relation to its surroundings.
- **Setting** – the context within which a building or structure is situated in relation to the surroundings. For example, buildings, roof scapes, chimneys, valleys, ridges, view corridors, trees, parks, gardens, view corridors, vantage points and landmarks may contribute to the setting of a building.
- **State Heritage Inventory** - is an online database of all statutory listed heritage items and heritage conservation areas in New South Wales including Aboriginal Places, State Heritage Register, Interim Heritage Orders, State Agency Heritage Registers and Local Environmental Plans. Each listing may include a description of the item or area, a Statement of Heritage Significance and recommended management provisions to guide future development. The information is provided by local councils and State government agencies.
- **Statement of environmental effects** - is a document that outlines the environmental impacts of a proposed development and outlines any steps taken to protect the environment and to manage impacts.

- **Streetscape** - means the form, character and visual amenity of the street environment.
- **Verandahs** - located on the ground floor. Commonly seen on terrace houses and bungalows.
- **View** - an extensive or long range outlook towards a particular urban aspect or topographical feature of interest.

### Statements of Heritage Significance and Desired Future Character

- **Summary Statement of Heritage Significance for Cooks Hill Heritage Conservation Area** – Cooks Hill Heritage Conservation Area is culturally significant on a number of levels. As a residential and commercial precinct it is regarded for its special historical character, liveable streetscapes, diverse range of historic residential and commercial buildings and several tree lined streets. The age of the suburb, relative to other suburbs of Newcastle, is apparent in the style and form of buildings and eclectic street layout.

It has a significant visual character comprising buildings which represent all of the common architectural styles including mid 19th century workers' houses and terraces, Federation bungalows, Inter-war cottages and post-war residential flat buildings. A critical mass of contributory buildings, traditional streetscapes, significant trees, sandstone kerb and gutters, artefacts, heritage listed hotels, shops and parklands, gives the suburb a strong sense of place and a distinctive historic identity valued by local residents and visitors.

Cooks Hill is closely associated with the Australian Agricultural Company as part of the original 2000 acre grant owned by the Company. The Company began to sell off parts of Cooks Hill in the 1850s. However, even before that the Company built huts for its workmen and so the area began its life as a mining village in the midst of the Company's railways and mines. When the first land sales did occur, development was rapid along Lake Macquarie Road (Darby Street) and eventually Blane Street (Hunter Street), becoming an extension of the main laid out streets towards the City Centre. The early houses were single and two storey terraces and miners' cottages, both brick and timber. Retailing and hotel keeping flourished as did the population. The area is significant as it reflects the land uses and activities of the AA Company. Its mines, its railways, and the Colliery railway serving the Merewether district, exercise a strong physical presence over Cooks Hill to this day.

- **Desired Future Character Statement for Cooks Hill Heritage Conservation Area** – The character of the Cooks Hill Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Cooks Hill will be preserved, celebrated and maintained through the retention of contributory buildings, the existing subdivision pattern, and elements of visual interest. Elements that are to be preserved include:

- contributory buildings constructed prior to the Second World War
- mature trees in gardens and the public domain
- the former Burwood Coal and Copper Company rail line and bridge abutments at Laman Street
- heritage fences
- sandstone kerbing and guttering
- Victorian era post box on Corlette Street
- pubs and shops on Darby, Union and Bull Streets and
- parks, including Centennial Park, Corlette Street, National Park.

The eclectic character of Cooks Hill will continue to provide residents with a unique and valued sense of place into the future.

**Summary Statement of Heritage Significance for Glebe Road Federation Cottages Heritage Conservation Area** – The Glebe Road Federation Cottages Heritage Conservation Area is important at the local level in demonstrating the principal characteristics of the Federation period and the nature of residential building construction in Newcastle between 1909 and 1915. The narrow window of time in which the precinct developed is significant in providing evidence of the key features of the Federation period including construction and building technologies, fashions and key elements of the Federation style. Those being the single storey scale of these modest detached row of dwellings, a symmetrical street frontage, set close to Glebe Road and set off side boundaries, open verandah, pyramidal roof form, hip and gable roofs, bearer and joist construction with lightweight cladding material (weatherboard), and the absence of garaging with provision for parking occurring at the rear accessed via side driveways. The uniformity of the group in terms of architectural style, age, height, form, massing, setbacks, materials, and lack of obvious garaging contributes to defining the character.

The house at 55 Glebe Road has associative significance with a prominent individual, being the home of RJ Kilgour, a past Mayor of Merewether, and whose son was the first to enlist locally in 1915 for the First World War. The group of houses itself has associational significance with the Australian Agricultural Company, and the south east boundary line abuts the easement of the former Burwood Coal and Copper Company railway line, which was the Merewether Estate's coal haulage line.

- **Desired Future Character Statement for Glebe Road Federation Cottages Heritage Conservation Area** – The character of the Glebe Road Federation Cottages Heritage Conservation Area is made up of the single storey Federation cottages that were built between 1909-1915. The homogenous character of this precinct will be preserved and maintained through the retention of all contributory buildings, elements of visual interest and heritage significance. Elements that are to be preserved include:
  - The building group at 55 to 75 Glebe Road, The Junction, is a fine representative example of a group of intact Federation era cottages which have high contributory value to the streetscape.
  - The urban form which reflects a regular pattern of subdivision and development that dates from the 1900-1920.
  - Side driveways with access to garages and on-site car parking accommodation at the rear of the house group.

Items of heritage significance recommended for individual listing as heritage items in Schedule 5 of the Newcastle LEP.

- **Summary Statement of Heritage Significance for Hamilton Business Centre Heritage Conservation Area** – Hamilton Business Centre Heritage Conservation Area is of heritage significance for its role in the economic and social life of the local Hamilton community. It contains many examples of two storey shops and commercial premises that serve to reflect the various periods of economic growth and social history. The area is representative of the waves of immigration during the 20th century and the eastern European immigrants who came to Newcastle established businesses in the street. Newcastle's earliest examples of Italian and Greek eateries opened on Beaumont Street during the 1950s. The Newcastle Earthquake of 28 December 1989 dramatically changed Beaumont Street. There was widespread damage and loss of life and major social dislocation. However, in terms of the buildings that survived, they were revitalised and many of the two storey shopfronts were saved by judicious planning and urban design. Beaumont Street is now a thriving urban centre with a cosmopolitan character. Many of the buildings have been compromised by unsympathetic signage however, the two storey scale is important in defining the character of the street.



- **Summary Statement of Heritage Significance for Hamilton Residential Precinct Heritage Conservation Area** – The Hamilton Residential Precinct HCA is a low scale, residential area typified by small lot housing of generally one or two storeys, with the character of the area and its streetscapes representative of the late Victorian, Federation and Inter-war periods of Australian urban development. The style of housing - late Victorian terraces and cottages, Federation cottages and bungalows in the popular styles of the time, Italianate, Queen Anne, Edwardian, and California and Spanish Mission influences. In particular, a large number of detached terrace houses, with streets generally comprising of small lot housing, with a traditional street grid nestled adjacent to Hamilton railway station, and general absence of space for vehicle accommodation.

The Hamilton residential precinct represents a pattern of urban settlement that is representative of the gradual urban infill of the Newcastle coal field as mining moved out to the Hunter valley from 1880s until the turn of the 20th century. The urban development in the suburb reflects the gradual release of land by the AA Company, with some houses built as early as 1870. Most of the suburb was released in 1885-1886, and 1900-1920. Hamilton's development between 1880 and 1900 reflects a period of intensive infrastructure investment by the state government, comprising the opening of the railway and train station in 1887. This attracted people to the suburb from the city centre and the style and age of much of the housing stocks reflects this period of growth and development. The Hamilton Residential precinct HCA has special associations with the Australian Agricultural Company, being part of their 2000 acre grant of land in inner Newcastle. The township developed around the lucrative borehole pit, and was named 'Pit Town', with operations at the No 1 pit, No 2 pit, the Hamilton pit and the lucrative D pit on Cameron Hill, all of which were opened up in the late 1840s and 1850s. The enduring legacy of the AA Company is still reflected in the contemporary names of streets, including Lindsay, Denison, Cleary, Everton and Skelton Streets. The smaller lot layout of the present day residential area of Hamilton can be attributed to the manner in which the AA Company released land for sale, the main purchasers being miners and company employees, and also reflects an era of urban development before the widespread use of the motor car, with little provision made for car parking.

- **Desired Future Character Statement for Hamilton Residential Precinct Heritage Conservation Area** – The character of the proposed Hamilton Residential Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Hamilton residential precinct will be preserved and maintained through the retention of contributory buildings, street trees and elements of visual interest and heritage significance. Elements that are to be preserved include:
  - The range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets.
  - Street furniture such as sandstone kerbing and guttering, and other features of historical interest.
  - The urban form which reflects a regular pattern of subdivision and development that dates from the 1890s to the 1930s, and building stock from this period.
  - Prevailing absence of garages and on-site car parking accommodation.
  - Sandstone kerb and gutters and traditional road layout.
  - Items of heritage significance individually listed as heritage items in Schedule 5 of the Newcastle LEP.

- **Summary Statement of Heritage Significance for Hamilton South 'Garden Suburb' Heritage Conservation Area** – The Hamilton South 'Garden Suburb' Heritage Conservation Area is significant to the local community for the surviving evidence of an early twentieth century subdivision pattern made up of single dwellings on large 'suburban' style allotments generally over 600 square metres. The precinct has associational significance with the eminent Australian architect and planner Sir John Sulman and as such, its original form is important evidence of his work and ideas. The suburb is one of Newcastle's earliest and largest examples of a planned garden suburb and as such is historically important. The evidence of Sulman's original design is reflected in the road layout, allotment shape and pattern, and form of housing – single storey detached bungalow and cottage style houses, with a consistent palette of face brick and painted weatherboard houses.
  
- **Desired Future Character Statement for Hamilton South 'Garden Suburb' Heritage Conservation Area** – The character of the Hamilton South 'Garden Suburb' Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Hamilton South 'Garden Suburb' will be preserved and maintained through the retention of contributory buildings, open space, the existing subdivision pattern and maintenance of the 'Garden Suburb' layout, street trees and elements of visual interest and heritage significance such as Parkway Avenue, Learmonth Park, small pocket parks, and the vegetated edges of Cottage Creek. Elements that are to be preserved include:
  - the original dwellings of the 'Garden Suburb' which were built up to 1935
  - the single storey scale of housing stock that is an original defining feature of the 'Garden Suburb'
  - the consistent front and side setbacks including retaining the offsets to side boundaries and keeping front gardens as open space
  - existing subdivision pattern and street layout as evidence of Sulman's 'garden suburb' layout and town plan
  - a strong symmetrical and hierarchical pattern of streets including Parkway, Gordon and Stewart Avenues
  - the existing appearance, form and function of Parkway Avenue, including the road verges, street trees, bridge abutments at Cottage Creek, and the central median that splits the carriageway into two single lane roads
  - gardens, street trees and public open space including pocket parks at Wilson Place, Corona Street, and elsewhere and
  - the relationship of houses to their gardens and houses to each other.
  
- **Summary Statement of Heritage Significance for Newcastle City Centre Heritage Conservation Area** – The Newcastle City Centre Heritage Conservation Area is significant on many levels. The mix of commercial, retail and civic buildings is a powerful reminder of the city's past, its economic and social history. Historic buildings provide the backdrop to a city of dramatic topography on the edge of the sea and the mouth of a harbour.
 

The pre-1840s buildings in the city are of state significance (Rose Cottage, c1830, Newcomen Club, 1830, parts of James Fletcher Hospital) and share associations with the city's convict origins. Newcastle has a rich archaeological record of national significance, with the potential to yield information about the early convict settlement and early industrial activities. The city area is known to have been a place of contact between colonists and the indigenous population. This evidence is available in historical accounts and in the archaeological record surviving beneath the modern city.

The high numbers of commercial and civic buildings of the 19th and 20th centuries gives the city a rich historic character which is notable and allows an understanding of the importance of the city as a place of commerce, governance and city building. The historical foundation of the city was the discovery and exploitation of coal with good shipping access via a safe and navigable harbour. The town's layout by Surveyor General Henry Dangar in 1828 is still visible in the city's streets, and is an element of historical value, particularly in the vicinity of Thorn, Keightley, Hunter and Market Streets.

- **Summary Statement of Heritage Significance for Newcastle East Heritage**

**Conservation Area** – The Newcastle East Heritage Conservation Area is highly significant as a historic landscape that provides a record of the interaction between the natural environment, including the harbour and the sea, and human settlement. It contains important evidence of Aboriginal life in Newcastle East, uncovered during excavations at the Convict Lumber Yard (CLY) and historical archaeological sites. This evidence allows archaeologist to understand the human and environmental history of the precinct.

Throughout its European history the area has been shaped by different activities including being the second penal settlement on the mainland after Sydney (from 1801), the site of the processing and shipping of cedar and coal (CLY), having an important coastal defence installation (Fort Scratchley Historic site), the Nobbys lighthouse and breakwater important to the story of shipping, through to the generation of electricity. The residential area is significant for its consistent streetscapes of two and three storey terrace housing dating from the mid-19th through to early 20th centuries and its housing for workers. There are also examples of single storey detached houses.

The social history of Newcastle East is derived from it being the site of early conservation battles in the 1970s, between developers and conservationists and there are rows of public housing that make this place a community and home for many. It is also an important place of recreation at facilities like the Ocean Baths, Nobbys Beach, and Foreshore Park.

- **Desired Future Character Statement for Newcastle East Heritage Conservation Area** –

The character of the Newcastle East Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of Newcastle East will be preserved and maintained through the retention of contributory buildings, open space, street trees and elements of visual interest and heritage significance such as the many iconic buildings located in Newcastle East, parks and open space, views and vistas, the unique steep topography and street layout, and the character of the streetscapes including street trees, buildings and the relationship of built elements. Elements that are to be preserved include:

- the range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets
- existing subdivision pattern and street layout, including preserving the integrity of laneways
- street furniture such as sandstone kerbing and guttering, and other features of historical interest such as heritage items, public stairs, lanes, parks, views and vistas
- the regular and homogenous urban form which reflects a regular pattern of subdivision and development, and building stock from between the 1870s and 1930, demonstrating the gradual urbanisation of a once indigenous landscape
- the existing appearance of Newcastle East, views outwards to the coastline and harbour, and views into the area from Foreshore Park and the Newcastle coastline and Ocean Baths

- icon heritage items including the Coal River Precinct, the Nobbys headland and breakwater, Fort Scratchley Historic Site, Convict Lumber Yard and Customs House precinct, the Newcastle Ocean baths, Joy Cummings Centre and other significant groups such as the Lahey Bond Store and Stevenson Place terraces and
  - parks and reserves, including Newcastle beach, Nobbys Beach, and Foreshore Park.
- **Summary Statement of Heritage Significance for The Hill Heritage Conservation Area** – The Hill is of outstanding heritage significance to the City of Newcastle on many levels. It is a significant historic landscape containing numerous heritage items, significant trees, views of the ocean and harbour, and a steep topography that gives it a distinctive character. Its history is multi-dimensional as one of the oldest settled areas and as a place of first European settlement.

There are many significant paintings by early colonial artists including Joseph Lycett, Sophia Campbell and others, depicting European use of the hill area during the first two decades of settlement, and that depict the traditional owners of the area, the Awabakal, living in this area. The Anglican Cathedral and burial ground is situated at the top of the hill. The first railway in Australia was located in this precinct, starting at the AA Coy's A Pit, just off Church Street. The flat bench created for the mine is still visible with the "The Boltons" heritage group now sitting over the site. The funicular railway is significant as the first in Australia, and it was manually powered by the convict labour force indentured to the Company.

The heritage conservation area is also significant historically for its three AA Coy coal pits, the three earliest private coal mines in Australia, the A Pit, off Church Street, the B Pit, off Swan Street, the C Pit, off Bingle Street, and their remains including the winding house at No 18 Bingle Street (see Item No. 2173981). These sites are of high heritage significance as they brought profound changes to the economic fortunes of the colony after 1828 because a coal export trade gained great momentum. The Cathedral and its burial ground have the potential to reveal through their archaeology information about the convict settlement, and despite the repositioning of the graves, the human remains survive in their original resting places.

The Hill Heritage Conservation Area has a strong sense of place and contains highly intact streetscapes with houses, terraces and villas dating from the mid 19th Century through to the late 20th century. There are several residences which date as far back as the 1850s and Claremont House in Newcomen Street which was built in the 1840s, and these are of particular importance. A remnant stone wall (the remains of the Parsonage at the corner of Newcomen and Church Street) dates between 1818-1820. The sandstone retaining walls are an important historical element in The Hill along with mature trees, gardens, and early roads formations.

- **Desired Future Character Statement for the Hill Heritage Conservation Area** – The character of the Hill Heritage Conservation Area is made up of a variety of building styles that date from the late 19th and early decades of the 20th century. The special character of The Hill will be preserved and maintained through the retention of contributory buildings, open space, the existing subdivision pattern, street trees and elements of visual interest and heritage significance such as the many iconic buildings located in The Hill, parks and open space, views and vistas, the unique steep topography and street layout, and the character of the streetscapes including street trees, buildings and the relationship of built elements. Elements that are to be preserved include:
  - the range of contributory and historic buildings, particularly intact or historically significant groupings, heritage items, iconic structures, and the appearance and layout of streets
  - sandstone retaining walls, street features such as sandstone kerbing and guttering, and other features of historical interest such as coal shutes, public stairs, lanes, parks, views and vistas

- the eclectic and organic nature of the urban pattern and varying ages of the building stock that demonstrates the gradual urbanisation during the 19th and 20th century of a once indigenous landscape
- the existing appearance of the Hill, views outwards to the coastline and harbour and views into the area from the City, foreshore and Stockton which reveal a tree-lined suburb with a steep topography
- gardens, street trees and public open space and
- existing subdivision pattern and street layout.

### Heritage Impact Statements

A Heritage Impact Statement must be submitted with any applications for development to properties within heritage conservation areas. It is a document which assesses the impact of any proposed development on the heritage significance of the building, streetscape, or area.

The length of the statement will vary depending on the scale and complexity of the proposal, and for the most simplistic development proposals, the Heritage Impact Statement can be included as a section within the Statement of Environmental Effects.

It is a document that conforms to the standards contained in the NSW Heritage Branch publication *Statements of Heritage Impact, 1996, revised 2002*. The issues to be addressed by the heritage impact statement for development that is located in a heritage conservation area must include:

- (a) the heritage significance of the heritage conservation area and the contribution which any building, work, relic, tree or place affected by the proposed development makes to this heritage significance;
- (b) the impact that the proposed development would have on the heritage significance of the heritage conservation area;
- (c) the compatibility of any proposed development with nearby contributory buildings and the character of the heritage conservation area, taking into account the size, form, scale, orientation, setbacks, materials and detailing of the proposed development;
- (d) the measures proposed to conserve the significance of the heritage conservation area and its setting;
- (e) whether any landscape or horticultural features would be affected by the proposed development;
- (f) whether any archaeological site or potential archaeological site would be affected by the proposed development;
- (g) the extent to which the carrying out of the proposed development in accordance with the consent would affect any historic subdivision pattern; and
- (h) an addendum to the statement to address the issues raised by any submission received in relation to the proposed development in response to the notification or advertising of the application.

The statement should clearly identify each of the proposed works and should incorporate all development application drawings.

The statement should consider compliance with any recommended management policies contained in the State Heritage Inventory for the property or heritage conservation area.

Where a building has a current Conservation Management Plan, the Heritage Impact Statement will need to demonstrate compliance with the plan.

The statement should include options that have been considered for the proposal and document reasons for choosing the preferred option. These should include proposals to minimise the impact of the development on the heritage significance of the building, site, streetscape or area.

A structural engineer's report detailing the structural condition of the building and any other consultant reports such as a quantity surveyor report, pest inspection report or archaeological assessment report should be included as part of the heritage impact statement if they are relevant to the application.

### **Aims of this section**

1. To provide a framework for the conservation of the special qualities within each of Newcastle's Heritage Conservation Areas - Cooks Hill, Glebe Road Federation Cottages, Hamilton Business Centre, Hamilton Residential Precinct, Hamilton South 'Garden Suburb', Newcastle City Centre, Newcastle East, and The Hill.
2. To define the importance, in heritage terms, of each heritage conservation area by providing a Statement of Heritage Significance and a Desired Future Character Statement that shall be the basis of design development.
3. To ensure that development activity within each heritage conservation area is commensurate with heritage significance and produces good design and liveable streetscapes.
4. To ensure that all development has a positive effect on the character of heritage conservation areas.
5. To provide clarity on the types of alterations and additions acceptable in each heritage conservation area.
6. To ensure that proponents of development refer to the Heritage Technical Manual and State Heritage Inventory in the design of development proposals.
7. To identify when the adaptive re-use of existing buildings is suitable.
8. To integrate the principles of ecologically sustainable development with best practice heritage management.

## 6.02.01 Alterations and additions

### Objectives

1. Contributory buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained.
2. Neutral buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained. It may be possible to remove unsympathetic alterations and additions to the neutral building to improve the contextual design and visual impact of the site to reinforce the character of the heritage conservation area.
3. The detrimental impacts of non-contributory buildings to the area or streetscape are ameliorated or removed. Development on sites containing non-contributory buildings improves the contextual design and visual impact of the site to reinforce the character of the heritage conservation area.
4. The architectural style of the host building(s) is reflected in the design of the additions and alterations.
5. Alterations and additions contribute positively to the streetscape and the setting of the host building.
6. Additions are designed to minimise the impact on the special qualities of the streetscape and the architectural style of the host building.
7. Additions are in proportion to the host building and conserve the scale of the building and the street.
8. Additions are not visible from the public domain unless the addition is architecturally outstanding.

### Controls

Note 3: These controls should be read in conjunction with the guidelines provided in the *Heritage Technical Manual*, Updated September 2014, Newcastle City Council and the *State Heritage Inventory* [www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx](http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx)

### Building Envelope

1. The building envelopes in Part 3 of the Newcastle Development Control Plan 2012 do not apply in heritage conservation areas. The building envelope for alterations and additions in heritage conservation areas is established on its merits having regards to:
  - (a) maintaining the profile and form of the host building and its contribution to the area and streetscape, including roof form and profile, and allowing the original building to be discerned, with additions smaller in scale than the existing building, and additional storeys located behind and preferably below the main roof ridge height of the existing building; and
  - (b) consistency with and complementary to the massing, form, rhythm, bulk, scale, setbacks, wall height, building height, roof pitch, parapet and ridge line of neighbouring contributory buildings which predominate in the street; and
  - (c) amenity considerations relating to the building and its neighbours including:

- i) avoiding overbearing development for public spaces and adjoining dwelling houses and their private open space;
- ii) impact on the amenity and privacy of residents;
- iii) protection of significant views or outlook of adjoining residents;
- iv) provision of access to natural light, sunlight and breezes;
- v) ensure buildings are related to land form, with minimal cut and fill;
- vi) ensuring the development will not impede the flow of stormwater or overland paths; and
- vii) sufficient landscape and deep soil areas are provided around the development to conserve existing trees and accommodate intensive new landscaping.

### Contributory Buildings

2. Alterations and additions to a contributory building must:
  - (a) respect significant original or characteristic built form;
  - (b) respect significant traditional or characteristic subdivision patterns;
  - (c) retain significant fabric;
  - (d) retain, and where possible reinstate, significant features and building elements, including original balconies and verandahs, fences, chimneys, joinery, shop front detailing etc;
  - (e) remove unsympathetic alterations and additions, including inappropriate building elements;
  - (f) use appropriate materials, finishes and colours; and
  - (g) respect the pattern, style and dimensions of original windows and doors.
3. Where an addition to the building is proposed, significant external elements are to be reinstated.
4. The appearance of a principal or significant frontage should generally be conserved and should not be significantly altered. Alterations and additions may be possible to the rear of contributory buildings where they do not significantly alter the appearance of principal and significant façades.
5. Where buildings have foyers or other significant interior features, including hallway detailing, panelling and significant staircases, that are designed to be visible from the street, these are to be retained, especially where they form part of the building's contribution to the streetscape and character of the heritage conservation area.



### Neutral Buildings

6. Alterations and additions to a neutral building are to:
  - (a) remove unsympathetic alterations and additions, including inappropriate building elements;
  - (b) respect the original building in terms of bulk, form, scale and height;
  - (c) minimise the removal of significant features and building elements; and
  - (d) use appropriate materials, finishes and colours.
7. Alternatives to the retention and reuse of neutral buildings will be considered where it can be demonstrated that:
  - (a) retention and reuse of the building is not reasonable having regard to its heritage significance and contribution to the streetscape of the heritage conservation area, structural adequacy and risk to life, and the economic feasibility of refurbishment and reconstruction; and;
  - (b) the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.

### Non-contributory Buildings

8. Alterations and additions to non-contributory buildings are to:
  - (a) remove inappropriate elements or features that are intrusive to the heritage significance of the heritage conservation area; and
  - (b) respect the prevailing character of the area and street in terms of bulk, form, scale, height and materials.
9. Alternatives to the retention of non-contributory buildings will be considered where it can be demonstrated that the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.

### Architectural character

10. Additions respect the host building, preserving the significant aspects such as scale, roofscape, building form, external materials, details, and bulk.
11. Roof conversions occur where the host roof is a high pitch and can accommodate rooms largely within the roof volume. Depending on the significance and the style of the building, dormer roof windows to provide light and ventilation are permitted.
12. Wing additions occur at the rear. Roof pitch matches that of the host building with additions constructed in a manner that reflects the detailing of the host building.
13. Pavilion additions and rear additions are the preferred method of extending a building. A contemporary or contrasting form may be used where such additions are not visible from street or other public areas.

14. Two storey pavilions occur where there is no negative impact on the dwelling when viewed as an element in the streetscape; and, where it can be demonstrated that there is no negative affect on adjoining properties.
15. Sloping sites accommodate additions that follow the slope of the land. Such additions should be located at the rear.
16. Additional storey additions that alter the scale of the host building are permitted where an existing single storey building:
  - (a) is not a listed heritage item
  - (b) is surrounded by two to three storey buildings
  - (c) does not negatively affect the building in its streetscape setting
  - (d) does not result in a building of more than two storeys in total height.
17. In semi detached houses and contiguous groups of terrace houses, additions and alterations are only considered if the symmetry of the host building will be maintained.
18. Solar panels are permitted on roof planes facing the street where the host building is not a listed heritage item and where the panels are not visually intrusive.

### **6.02.02 Materials and details in heritage conservation areas**

#### **Objectives**

1. Maximise the reuse of existing material on site.
2. Ensure selection of new materials and details compliment the local character.

#### **Controls**

1. A high proportion of the construction material from the host building are recycled and incorporated in the new additions.
2. The proposal builds on the materials, colours and detail seen throughout the area and which reflect the character of local precincts.
3. The materials palette proposed in an alteration and addition reflects the original design and appearance of the host building.
4. Traditional building elements including windows, doors, hardware, chimneys, verandahs, wall surfaces and other characteristic features of the building, are retained and repaired.
5. Sandblasting is not an acceptable method for cleaning unpainted brickwork or remove paint from brick or stone.
6. Lime mortars are replaced by mortars of similar consistency. Expert advice should be obtained for re-pointing and repair work.
7. External colour schemes are complimentary to the heritage conservation area, are based on research, and have regard of the setting.

8. Exposed brickwork, stone, tiles and shingles are not painted or rendered.
9. Repair and replace joinery in profiles matching the original detailing.
10. Where a face brick structure is proposed, this matches the brick colour and texture of the associated dwelling.

### **6.02.03 Accommodating vehicles in heritage conservation areas**

#### **Objectives**

1. Minimise the visual intervention of new structures that accommodate vehicles.
2. Maintain the relationship of buildings to the street and to their settings.
3. Maintain the setbacks associated with the heritage conservation area.
4. Produce liveable streetscapes underpinned by the historical character of the conservation area.

#### **Controls**

1. Garages and carports are sited at the rear or behind the building line of the existing house.
2. Additional vehicle crossings in heritage conservation areas are not supported unless the vehicle crossing is to a rear laneway.
3. Where a property has access to a rear lane, vehicle accommodation is located adjacent to the laneway, providing vehicle access from the laneway.
4. Where access to the rear or side of the site is not available, single garages and carports are permitted where demonstrated that the impact on the streetscape or host building is acceptable.
5. Where double garages are proposed at the rear of sites, they are designed with two doors and a pier between them to reduce the horizontal effect of the opening.
6. Car parking where permitted in front of a building, is uncovered.
7. Sandstone kerbing is not to be disturbed.
8. Driveways are designed as concrete or brick strips with grass or gravel in between.
9. Paving materials are terminated inside the property boundary and are not extended into the public domain, unless of a matching colour and treatment.
10. New driveway crossings are to be designed in consultation with Council. All crossings are to be designed to match the colour palette of the site and the neighbouring footway, subject to advice from council staff. Generally plain concrete with a charcoal oxide and trowel finish is to be used where bitumen paving is the predominant paving material.

## 6.02.04 Fences in heritage conservation areas

### Objectives

1. Preserve and protect fences, stone and brick retaining walls and garden settings.
2. Ensure fences within the public domain contribute to the streetscape.
3. Retain and repair surviving original fences.
4. Ensure new fences in the public domain match the details and materials of the adjoining contributory fences or matches the original fence in the case of rebuilding projects.

### Controls

1. Reconstruct missing fences to their previous design based on photographic evidence.
2. Retain, repair and re-instate original and traditional fences and retaining walls.
3. Use traditional materials and designs on front or side boundaries where visible to the street.
4. Retain later fences where they reflect the traditional fence design.
5. Front fences are between 700-1200mm high, to a maximum height of 1500mm, measured from ground level.
6. Front fences extend across the whole of the front boundary of the property, and should incorporate gates where there is a driveway present.

## 6.02.05 Gardens in heritage conservation areas

### Objectives

1. Ensure front gardens are a part of the streetscape.
2. Ensure appropriate landscaping is provided.
3. Retain surviving original garden elements such as lych gates, paths, edging tiles etc.
4. Promote use of traditionally designed gardens that enhance the appearance of historic houses and the streetscape.

### Controls

1. Trees and shrubs are planted within the property boundaries and not on the front verge which forms part of the public domain.
2. The selection of street trees is undertaken by Council.

## 6.02.06 Subdividing or amalgamating land in a heritage conservation area

### Objectives

1. Ensure that subdivision and amalgamation of land in a heritage conservation area is commensurate with the heritage significance of the area, and conserves the important characteristics of the subdivision pattern and allotment layout, streetscape character and notable features of the precinct.
2. Allow for the interpretation of the original pattern of the subdivision pattern in any development proposal.

### Controls

1. Lot boundary changes are not proposed where the development pattern or early subdivision is integral to the heritage significance of the heritage conservation area.
2. Lot boundary changes within heritage conservation areas retains significant features such as buildings, archaeological sites, trees, gardens, and outbuildings associated with the pattern of development of that area.
3. Lot boundary changes to large allotments enables the continuation of the significant or early subdivision pattern of development in the area.
4. Amalgamation of sites in heritage conservation areas provides for the conservation of the fine grain pattern of development associated with the area, where applicable.

## 6.02.07 Infill development in a heritage conservation area

Note 4: These controls should be read in conjunction with the guidelines provided in the *Heritage Technical Manual*, Updated September 2014, Newcastle City Council and the *State Heritage Inventory* [www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx](http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx)

All new development in the conservation area should be treated as 'infill', that is, it should respect the design of its neighbours and the character of the area generally. Similar principles are applied to infill development as are applied to alterations and additions, and must begin with an understanding of the design and heritage significance of the buildings to which it relates.

Infill development should not copy or replicate its neighbouring traditional buildings. Rather, it is appropriate to interpret the features of the neighbouring buildings and design them in a way that reflects and respects them.

Where a development application is submitted for infill development, appropriate design advice from an architect or accredited building designer should be obtained. A heritage impact statement should be written by the design professional to explain the form and style of the proposal and explain how it relates to the heritage conservation area.

## Objectives

1. Infill development respects the design of its neighbours and the character of the heritage conservation area.
2. Infill development achieves a harmony of character; sympathy of scale; appropriateness of form; appropriate orientation and setback, and sympathetic materials and details within heritage conservation areas.
3. Infill development demonstrates a good fit within its setting that respects the neighbouring buildings and the character of the heritage conservation area.
4. Contributory buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained.
5. Neutral buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained.
6. Non-contributory buildings provide locations for appropriate infill development. The detrimental impacts of non-contributory buildings to the area or streetscape are ameliorated or removed. Development on sites containing non-contributory buildings improves the contextual design and visual impact of the site to reinforce the character of the heritage conservation area.

## Controls

### Building Envelope

1. The building envelopes in Part 3 of the Newcastle Development Control Plan 2012 do not apply in heritage conservation areas. The building envelope for infill development in heritage conservation areas is established on its merits having regards to:
  - (a) consistency with and complementary to the massing, form, rhythm, bulk, scale, setbacks, wall height, building height, roof pitch, parapet and ridge line of neighbouring contributory buildings which predominate in the street; and
  - (b) amenity considerations relating to the building and its neighbours including:
    - i) avoiding overbearing development for public spaces and adjoining dwelling houses and their private open space;
    - ii) impact on the amenity and privacy of residents;
    - iii) protection of significant views or outlook of adjoining residents;
    - iv) provision of access to natural light, sunlight and breezes;
    - v) ensure buildings are related to land form, with minimal cut and fill;
    - vi) ensuring the development will not impede the flow of stormwater or overland paths; and
    - vii) sufficient landscape and deep soil areas are provided around the development to conserve existing trees and accommodate intensive new landscaping.

### Contributory Buildings

2. Contributory buildings are to be retained.

### Neutral Buildings

3. Alternatives to the retention and reuse of neutral buildings will be considered where it can be demonstrated that:
  - (a) retention and reuse of the building is not reasonable having regard to its heritage significance and contribution to the streetscape of the heritage conservation area, structural adequacy and risk to life, and the economic feasibility of refurbishment and reconstruction; and
  - (b) the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.

### Non-contributory Buildings

4. Alternatives to the retention of non-contributory buildings will be considered where it can be demonstrated that the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.

### Character

5. The character or style of new buildings relates to the overall character of the area. The design of new buildings should be influenced by the style of buildings within the street and the neighbouring buildings.
6. The character of an infill building harmonises with the style of its neighbours. In particular, the proposed building should avoid becoming a dominant element within the streetscape or being deliberately modern.

### Scale

7. Infill buildings must reflect the general scale of streetscapes within the heritage conservation area. In particular, infill buildings should respect and be similar to the scale of neighbouring contributory buildings in the vicinity.
8. The predominant height of contributory buildings in the street should be used as the starting point for the scale of infill buildings, rather than the highest building in the street (especially where the highest building is non-contributory or intrusive).
9. Consideration must be given to the relative scale of the components of a building. Infill development must be designed with elements that reflect the scale of building elements in contributory buildings. For example, window proportions and the height of major elements such as parapets and eaves lines relative to neighbouring buildings, balustrades and roof lines.

### Form

10. The form of new buildings (i.e. massing and overall bulk) is consistent with the prevailing form of contributory buildings within the heritage conservation area.

11. New development relates to the massing of neighbouring contributory buildings.
12. The roof form, slope and pitch of new development reflects and is respectful of the typical forms of contributory buildings in the heritage conservation area.

### Setbacks and orientation

13. Infill development is setback consistent with the prevailing setbacks in the heritage conservation area. For example, zero lot lines to front boundaries is a development pattern that should be repeated where relevant to the streetscape.

### Materials and details

14. The materials and details of new development are compatible with, but not directly copy, those of contributory buildings in the streetscape.

### Vehicle accommodation

15. Garages and carports are sited at the rear or behind the building line.
16. Where a property has access to a rear lane, vehicle accommodation is located adjacent to the laneway, providing vehicle access from the laneway.
17. Additional vehicular crossings in heritage conservation areas are not supported unless the proposed car-parking is provided at the rear of the site.
18. Where access to the rear or side of the site is not available, single garages and carports are permitted where demonstrated that the impact on the streetscape is acceptable.
19. Where double garages are proposed it is at the rear and does not impact the public domain or appreciation of the character of the heritage conservation area.
20. Sandstone kerbing is not impacted.
21. Paving materials are terminated inside the property boundary and are not extended into the public domain.



The following terms will be inserted in the Glossary:

- **Contributory buildings** - are buildings that make an important and significant contribution to the streetscape and the character of the heritage conservation area. Contributory buildings are an important resource for the interpretation and understanding of the history and development pattern of the area. Such buildings contribute to the overall heritage value of the area. They have a reasonable to high degree of integrity, highly intact or with reversible alterations, and date from a key development period of significance. They are buildings which are from a:
  - (i) significant historical period layer, highly or substantially intact; or
  - (ii) significant historical period layer, altered yet recognisable and reversible.
  
- **Neutral buildings** – are buildings that do not significantly contribute or detract from the significant character of the heritage conservation area or streetscape. Buildings that do not belong to a key period of significance, sympathetic contemporary development or infill that sits well within the streetscape, and development from a key period of significance which has been irreversibly altered, are identified as neutral. They are buildings which are from a:
  - (i) significant historical period layer, altered in form, unlikely to be reversed;
  - (ii) new sympathetic layer or representative of a new layer; or
  - (iii) non significant historical period layer.
  
- **Non-contributory buildings** - are buildings that are intrusive to the streetscape of a heritage conservation area because of inappropriate scale, design, bulk, setbacks, setting, roof treatment, atypical garage arrangements or materials. They do not represent a key period of significance, detract from the character of a heritage conservation area, and are suited to redevelopment. They are buildings which are:
  - (i) new detracting development; or
  - (ii) other detracting development.

**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
ADOPTION OF AMENDMENT TO NEWCASTLE DCP 2012 - SECTION 6.02  
HERITAGE CONSERVATION AREAS**

**Attachment C:** Court Case Extract Nisbet v Newcastle City Council



Land and Environment Court  
New South Wales

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Case Name: Nisbet v Newcastle City Council

Medium Neutral Citation: [2017] NSWLEC 1480

Hearing Date(s): 24 August 2017

Date of Orders: 5 September 2017

Decision Date: 5 September 2017

Jurisdiction: Class 1

Before: O'Neill C

Decision: 

1. The appeal is upheld.
2. Development Application No. 2016/01351 for the demolition of the existing dwelling and construction of a new dwelling at 60 Turnbull Street, Merewether, is approved, subject to the conditions of consent at Annexure A.
3. The exhibits, other than exhibits 1 and A, are returned.

Catchwords: DEVELOPMENT APPLICATION: demolition of dwelling in a heritage conservation area; dwelling assessed as making a neutral contribution to the heritage significance of the heritage conservation area.

Legislation Cited: Environmental Planning and Assessment Act 1979  
Land and Environment Court Act 1979

Cases Cited: Form Architects (Aust) Pty. Limited v Ku-ring-gai Council [2017] NSWLEC 1107  
Helou v Strathfield Municipal Council [2006] NSWLEC 66  
Stockland Development Pty Ltd v Manly Council [2004] NSWLEC 472

Texts Cited: Nil

Category: Principal judgment

Parties: Olga and Alan Nisbet (Applicant)  
Newcastle City Council (Respondent)

Representation: Counsel:  
Mr G. Long, solicitor (Applicant)  
Mr R. O’Gorman-Hughes, barrister (Respondent)

Solicitors:  
Long Legal (Applicant)  
Newcastle City Council (Respondent)

File Number(s): 2017/132305

Publication Restriction: No

## **JUDGMENT**

- 1 COMMISSIONER: This is an appeal pursuant to the provisions of s 97(1) of the *Environmental Planning and Assessment Act 1979* (EPA Act) against the refusal of Development Application No. 2016/01351 for the demolition of an existing dwelling and construction of a new single storey dwelling (the proposal) at 60 Turnbull Street, Merewether (the site) by Newcastle City Council (the Council).
- 2 The appeal was subject to mandatory conciliation on 24 August 2017, in accordance with the provisions of s 34AA of the *Land and Environment Court Act 1979* (LEC Act). As agreement was not reached, the conciliation conference was terminated and a hearing held forthwith, pursuant to s 34AA(2)(b) of the LEC Act.
- 3 The parties consented to the admission of evidence given during the conciliation conference, pursuant to s 34(12) LEC Act.

## **Issues**

- 4 The Council contends that the existing dwelling should be retained because the unsympathetic elements later added to the dwelling could be removed and sympathetic additions constructed, so that the existing dwelling contributes to the heritage significance of the Hamilton South ‘Garden Suburb’ Heritage Conservation Area (Hamilton South ‘Garden Suburb’ HCA).

- 5 The Council does not raise any contentions in relation to the proposed new dwelling.
- 6 The applicant submits that condition 7 of the Conditions of Consent (exhibit 4), requiring the applicant to prepare an archival record of the building and yard and provided to Council, should be deleted.

### **The site**

- 7 The area of the site is 595.26sqm, with a frontage to Turnbull Street of 13.106m. The site contains a single storey timber framed dwelling, with a garage at the rear of the site.

### **The proposal**

- 8 The proposal is to demolish the existing single storey dwelling constructed c1940 and the garage at the rear of the existing dwelling and construct a new, single storey dwelling and garage.

### **Planning framework**

- 9 The site is zoned R2 Low Density Residential pursuant to Newcastle Local Environmental Plan 2012 and the proposal is permissible with consent. The objectives of the R2 zone, to which regard must be had, are:
  - To provide for the housing needs of the community within a low density residential environment.
  - To enable other land uses that provide facilities or services to meet the day to day needs of residents.
  - To accommodate a diversity of housing forms that respects the amenity, heritage and character of surrounding development and the quality of the environment.
- 10 The site is identified as flood prone land. The flood planning level (FPL) is defined by Newcastle Development Control Plan 2012 (DCP 2012) as the level of the planning flood (1% Annual Exceedance Probability flood) plus an additional freeboard of 500mm, at 4.01 Flood Management. The floor levels of all occupiable rooms of all buildings are not set lower than the FPL, at 4.01.03 control 1 of DCP 2012. On-site refuge is to be provided for all development where the life hazard category is L4 unless the proposed development is less than 40m from the perimeter of the PMF extent and the higher ground is accessible.

- 11 The site is located within the Hamilton South 'Garden Suburb' HCA (Heritage Map Sheet HER\_004G of LEP 2012). Before consent can be granted, regard must be had to the effect of the proposal on the heritage significance of the heritage conservation area, at cl 5.10(4) of LEP 2012. The statement of heritage significance for the Hamilton South 'Garden Suburb' HCA, at section 5.07 of DCP 2012, is as follows:

The Hamilton South "Garden Suburb" Heritage Conservation Area is significant to the local community for the surviving evidence of an early twentieth century subdivision pattern made up on single dwellings on large "suburban" style allotments generally over 600 square metres. The precinct has associational significance with the eminent Australian architect and planner Sir John Sulman and as such, its original form is important evidence of his work and ideas. The suburb is one of Newcastle's earliest and largest examples of a planned garden suburb and as such is historically important. The evidence of Sulman's original design is reflected in the road layout, allotment shape and pattern, and form of housing – single storey detached bungalow and cottage style houses, with a consistent palette of face brick and painted weatherboard houses.

- 12 A contributory building is defined by DCP 2012 as 'a building that is associated with a significant historical period, substantially intact; and a building associated with a significant historical period, altered yet readily identifiable.'
- 13 The Council prepared a 'Review of Heritage Conservation Areas Final Report' in June 2016, which was exhibited and adopted by the Council. The report identifies three levels of contribution to the collective heritage significance of a HCA, as follows:

#### Contributory buildings

Contributory buildings make a significant contribution to the character of heritage conservation areas and streetscapes. Typically they will retain a high proportion of original features and alterations are generally reversible. Contributory buildings are an important resource for the interpretation and understanding of the history and development pattern of the area. Such buildings will contribute to the overall heritage value of the area. The appearance of a principal or significant frontage should be retained, with alterations and additions located at the rear of contributory buildings.

#### Neutral buildings

Neutral buildings do not contribute or detract from the significant character of the heritage conservation area or streetscape. They include buildings that are associated with an area's historic development but may have been altered, or their intactness reduced over time. Neutral buildings may also be new sympathetic development or infill that sits well within a streetscape. It is preferable to keep such buildings and restore elements to increase the contribution of the buildings to the streetscape.

### Non Contributory buildings

Non-contributory buildings are intrusive to the streetscape of a heritage conservation area owing to their inappropriate scale, bulk, setback, roof treatment, atypical garage arrangements or materials. Non-contributory buildings may detract from the heritage conservation area streetscape and are suited to redevelopment. The redevelopment of non-contributory buildings provides an opportunity for new development to reinforce the character of the area. Non-contributory buildings provide locations for appropriate infill development.

- 14 The description of the Hamilton South Garden Suburb HCA in the Report includes the following:

This chapter examines the Hamilton South 'Garden Suburb' Heritage Conservation Area. Its' cultural significance, as its name suggests, is embodied in the surviving physical elements of the 'garden suburb' movement of the early 20th century. The layout of roads such as Parkway, Gordon and Stewart Avenues, and public open space including Learmonth and National Parks, creates a distinctive character planned around large residential allotments containing single dwellings on allotments of between 520m<sup>2</sup> and 820m<sup>2</sup>. The suburb today is defined by elements that reflect the ideas of the garden suburb movement. Key visual elements include:

- California and Inter-War bungalows built as single storey detached dwellings on large lots
- Consistent front and side setback a soft 'edge' between the public domain and gardens in the private domain
- a strongly symmetrical pattern of streets supporting a grid layout
- Parkway, Gordon and Stewart Avenues as the obvious dominant feature streets, parts of which contain the street trees planted by the AA Company
- Newcastle High School
- Learmonth Park. The park contains a pair of masonry monuments that originally formed the southern gateway at the intersection of Gordon Ave and Glebe Road
- Parkway Avenue is important in demonstrating the "garden suburb" design principles.

- 15 Figure 3.2 of the Report includes the following "Contributory buildings map":



16 The site is identified as “Neutral” on the map.

17 Contributory buildings

Contributory buildings may be defined as those buildings that are part of the original building stock, or have historic or aesthetic significance, or make a positive contribution to the streetscape. Generally buildings in this category had not been heavily altered or where alterations were evident these were of a scale or style that retained the character of the building. Removal of contributory buildings is detrimental to the heritage conservation area because these elements establish the prevailing character and reinforce its sense of place. On the other hand, demolition of and alterations to non-contributory buildings is encouraged if the replacement design is more in character with the streetscape. The contribution of any particular building to streetscape, character or heritage significance will guide the approach to development and assist in determining the degree of change that will be permitted.

### Expert evidence

18 The applicant relied on the expert planning evidence of Ms Shay Riley-Lewis and the Council relied on the expert planning evidence of Mr Bradley McCarron. As the experts had no expertise in heritage conservation, their evidence was, in relation to the contribution of the existing dwelling to the heritage significance of the Hamilton South ‘Garden Suburb’ HCA, unhelpful. This is not a criticism of the experts themselves, but as the Statement of Facts



and Contentions (exhibit 1) made plain, the critical issue in the appeal was heritage and the experts were only able to provide limited relevant evidence in relation to this issue.

### **Consideration**

- 19 As the Review of Heritage Conservation Areas Final Report has been exhibited and adopted by Council, I accept that it is a relevant consideration in regard to this appeal as a policy adopted by Council (*Stockland Development Pty Ltd v Manly Council* [2004] NSWLEC 472 [92]).

#### *Contribution of the existing cottage to the heritage significance of the HCA*

- 20 The existing building dates from the key period of development identified by the Hamilton South 'Garden Suburb' HCA.
- 21 Contrary to the Council's expert's evidence, the existing dwelling does not have any distinctive elements that could be identified as representative of the 'Californian Bungalow' style of architecture. The inter-war Californian Bungalow style is distinguished by its horizontal proportions, oversized or tapering pylons with cappings or grouped posts supporting a flat or low pitched roof to a verandah or gabled porch, shingled gable ends and chunky carpentry details, usually built in brick with rough cast render, wide eaves and exposed roof timbers and chimneys. The existing dwelling exhibits none of these characteristic elements, other than it has a front porch. There is, however, a number of Californian Bungalow styled dwellings, including timber clad versions, within the Hamilton South 'Garden Suburb' HCA.
- 22 The existing dwelling has been significantly altered, including the replacement of windows with aluminium frames and the replacement of wall and roof cladding and elements of the front porch.
- 23 In my opinion, the existing dwelling was appropriately identified by the Review of Heritage Conservation Areas Final Report as making a neutral contribution to the collective heritage significance of the Hamilton South 'Garden Suburb' HCA. The existing dwelling does not detract from the HCA or disrupt the established streetscape character; it is a single storey detached dwelling on a typically sized site and its scale and placement on the site is consistent with the surrounding development. It does not, however, contribute to the collective

heritage significance of the HCA, because it is a modest and expedient un-styled building that has been significantly altered.

- 24 I do not accept the Council's submission that "reconstructing" lost elements or cladding of this simple building will elevate its contribution to the heritage significance of the HCA. Reconstruction is only warranted where there is sufficient evidence to reproduce an earlier state of the fabric (The Australia ICOMOS Charter for Places of Cultural Significance, 2013 "Burra Charter" Article 20). What the Council is actually referring to is adding new fabric and architectural details to the dwelling. Adding contemporary fabric with pastiche detailing might enhance the building's aesthetic appeal to some, but it would not result in a building that contributes to the heritage significance of the HCA. The highest contribution this building can ever make to the HCA is a neutral contribution. A building sympathetic to the character of a HCA, but not contributory to the collective historic and aesthetic significance of the HCA, can only ever be neutral (or intrusive) in its contribution to the identified heritage significance. (*Form Architects (Aust) Pty. Limited v Ku-ring-gai Council* [2017] NSWLEC 1107 [30]).
- 25 The proposal does not impact on the dominant spatial structure and garden suburb features identified as part of the heritage significant of the Hamilton South 'Garden Suburb' HCA.

*The Review of Heritage Conservation Areas Final Report*

- 26 The Review of Heritage Conservation Areas Final Report identifies three levels of contribution to each HCA and maps these levels in the report. Appropriately, the report states that 'neutral buildings' are those that do not contribute or detract from the significant character of the heritage conservation area or streetscape. According to the report, neutral buildings include buildings that are associated with the areas historic development but may have been altered, or their intactness reduced over time.
- 27 The context of the site includes a number of buildings that date from the key period of development and appear to make a significant contribution to the streetscape character, including some examples of the Californian Bungalow style, but have been added to with second storeys setback from the front

façade or contemporary rear additions, and are identified as neutral. A building that dates from the key period and contributes to the collective heritage significance of the HCA should be, after a thorough assessment, identified as contributory to the heritage significance of the HCA. Contemporary and sympathetic additions do not necessarily diminish the contribution made by a building to the HCA. The test for contribution is not solely the integrity of the original building.

- 28 In my view, it is confusing to identify a building as making a neutral contribution to the heritage significance of a HCA, but to require building owners to “*restore elements to increase the contribution of the buildings to the streetscape*”. If the building makes a contribution to the heritage significance of the HCA, it should be identified as such. A contributory building with intrusive elements, as opposed to sympathetic additions, requires a different analysis to a neutral building. A neutral building cannot be made to contribute to the collective heritage significance of a HCA by adding architectural details similar to those of surrounding contributory buildings.

#### *Flooding*

- 29 The finished floor level (FFL) of the existing dwelling is 175mm below the FPL. The Council submits that, notwithstanding the DCP 2012 requirement for floor levels of occupiable rooms to be at the FPL or above, alterations and additions to the existing dwelling could be maintained at the existing FFL level.
- 30 The applicant submits that in making an investment to redevelop the site, either by retaining portions of the existing dwelling or building a new dwelling, the applicant should be entitled to rectify this issue by raising the floor level to the FPL.
- 31 I accept the Council’s concession that strict compliance with the numerical FPL for the FFL of an extension to an existing dwelling in an HCA would be unreasonable. This is a practical and balanced response to the issue of imposing FPL levels on existing dwellings in HCAs. I do not accept that the identification of a FPL would justify the demolition of a contributory building with FFL below the FPL in a HCA. There are other means of addressing a flood hazard and reducing the risk and cost of flooding, such as using flood

compatible structural building components and flood proofing services in areas below the FPL.

- 32 Given my finding that this dwelling does not contribute to the collective heritage significance of the HCA, this issue is no longer relevant. I have not had any regard to the fact that the existing FFL is below the FPL in making a finding that the demolition of the existing dwelling is acceptable. The proposed new dwelling's FFL is at the FPL.

### **Findings**

- 33 I am satisfied that the effect of the proposal on the identified heritage significance of the Hamilton South 'Garden Suburb' HCA is acceptable.
- 34 The Helou planning principle in *Helou v Strathfield Municipal Council* [2006] NSWLEC 66 [46], raised by the experts, is not a relevant consideration in this appeal. The Helou planning principle concerns contributory buildings in a HCA. More importantly however, DCP 2012 and the Review of Heritage Conservation Areas Final Report, which should be given some weight as embodying the Council's policy in relation to HCAs, together deal comprehensively with the heritage significance of the HCA and the appropriate consequences for each category of contribution to the heritage significance of the HCA.
- 35 Condition 7 (exhibit 4) requiring the applicant to prepare an archival record of the building and yard and provide it to Council is to be retained as the existing dwelling dates from the key period of development associated with the significance of the Hamilton South 'Garden Suburb' HCA. It is appropriate to have a record of the dwelling as part of the documentary evidence of the development of the suburb.
- 36 The Council does not raise an issue in relation to the proposed dwelling. I am satisfied that the replacement building is appropriately sympathetic to the Hamilton South 'Garden Suburb' HCA in terms of its scale and placement on the site. It will replace the existing 'neutral' dwelling with another 'neutral' dwelling in the HCA.

## **Orders**

37 The orders of the Court are:

The appeal is upheld.

Development Application No. 2016/01351 for the demolition of the existing dwelling and construction of a new dwelling at 60 Turnbull Street, Merewether, is approved, subject to the conditions of consent at Annexure A.

The exhibits, other than exhibits 1 and A, are returned.

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**Susan O'Neill**

**Commissioner of the Court**

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[Annexure A \(C\) \(341 KB, pdf\)](#)

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**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
ADOPTION OF AMENDMENT TO NEWCASTLE DCP 2012 - SECTION 6.02  
HERITAGE CONSERVATION AREAS**

**Attachment D:** Comparison of definition changes from the Heritage Technical Manual September 2014, Review of HCAs Final Report June 2016 and Draft Section 6.02 HCAs (for exhibition)

Attachment D - Comparison of definition changes from the Heritage Technical Manual September 2014, the Review of HCAs Final Report June 2016 and Draft Section 6.02 HCAs (For Exhibition)

	Heritage Technical Manual, September 2014		Review of HCAs Final Report, June 2016	Draft Section 6.02 HCAs (for exhibition)		
Term	Description	Objectives of Development Control	Definition	Definition	Objectives	Controls
<b>Contributory buildings</b>	Contributory buildings are those whose form, style, scale, massing and features are an integral element that contributes positively to the streetscape and the character of the heritage conservation area. Contributory buildings may contribute to the character of the area but individually their heritage significance may have been reduced by loss of original materials or detail; however, the overall contribution of the building remains. Examples of changes that may be seen on contributory buildings are verandah enclosures or non original windows.	Demolition of contributory buildings is an option of last resort. Enhance contributory buildings in any development application and maintain heritage characteristics and streetscape intactness. Where appropriate, restore heritage characteristics and streetscape intactness. Reconstruct original features and/or remove unsympathetic additions.	Contributory buildings make a significant contribution to the character of heritage conservation areas and streetscapes. Typically they will retain a high proportion of original features and alterations are generally reversible. Contributory buildings are an important resource for the interpretation and understanding of the history and development pattern of the area. Such buildings will contribute to the overall heritage value of the area. The appearance of a principal or significant frontage should be retained, with alterations and additions located at the rear of contributory buildings.	Contributory buildings are buildings that make an important and significant contribution to the streetscape and the character of the heritage conservation area. Contributory buildings are an important resource for the interpretation and understanding of the history and development pattern of the area. Such buildings contribute to the overall heritage value of the area. They have a reasonable to high degree of integrity, highly intact or with reversible alterations, and date from a key development period of significance. They are buildings which are from a: <ul style="list-style-type: none"> <li>(i) significant historical period layer, highly or substantially intact; or</li> <li>(ii) significant historical period layer, altered yet recognisable and reversible.</li> </ul>	<p><b>6.02.01 Alterations &amp; Additions:</b></p> <ol style="list-style-type: none"> <li>1. Contributory buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained.</li> </ol> <p><b>6.02.07 Infill Development:</b></p> <ol style="list-style-type: none"> <li>4. Contributory buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained.</li> </ol>	<p><b>6.02.01 Alterations &amp; Additions:</b></p> <ol style="list-style-type: none"> <li>2. Alterations and additions to a contributory building must:                             <ul style="list-style-type: none"> <li>(a) respect significant original or characteristic built form</li> <li>(b) respect significant traditional or characteristic subdivision patterns</li> <li>(c) retain significant fabric</li> <li>(d) retain, and where possible reinstate, significant features and building elements, including original balconies and verandahs, fences, chimneys, joinery, shop front detailing etc</li> <li>(e) remove unsympathetic alterations and additions, including inappropriate building elements</li> <li>(f) use appropriate materials, finishes and colours</li> <li>(g) respect the pattern, style and dimensions of original windows and doors.</li> </ul> </li> <li>3. Where an addition to the building is proposed, significant external elements are to be reinstated.</li> <li>4. The appearance of a principal or significant frontage should generally be conserved and should not be significantly altered. Alterations and additions may be possible to the rear of contributory buildings where they do not significantly alter the appearance of principal and significant façades.</li> <li>5. Where buildings have foyers or other significant interior features, including hallway detailing, panelling and significant staircases, that are designed to be visible from the street, these are to be retained, especially where they form part of the building's contribution to the streetscape and character of the heritage conservation area.</li> </ol> <p><b>6.02.07 Infill Development:</b></p> <ol style="list-style-type: none"> <li>2. Contributory buildings are to be retained.</li> </ol>

	Heritage Technical Manual, September 2014		Review of HCAs Final Report, June 2016	Draft Section 6.02 HCAs (For Exhibition)		
Term	Description	Objectives of Development Control	Definition	Definition	Objectives	Controls
<b>Neutral buildings</b>	Buildings whose impact on the heritage character of the area is neutral. Infill buildings which complement heritage characteristics and streetscape qualities.	Demolition of neutral buildings is discouraged. Improve the appearance of neutral buildings through incorporating appropriate colour schemes, landscaping, softening materials and through the reconstruction of features more in keeping with the original style and form of development. Remove unsympathetic additions.	Neutral buildings do not contribute or detract from the significant character of the heritage conservation area or streetscape. They include buildings that are associated with an area's historic development but may have been altered, or their intactness reduced over time. Neutral buildings may also be new sympathetic development or infill that sits well within a streetscape. It is preferable to keep such buildings and restore elements to increase the contribution of the buildings to the streetscape.	<p>Neutral buildings are buildings that do not significantly contribute or detract from the significant character of the heritage conservation area or streetscape. Buildings that do not belong to a key period of significance, sympathetic contemporary development or infill that sits well within the streetscape, and development from a key period of significance which has been irreversibly altered, are identified as neutral. They are buildings which are from a:</p> <ul style="list-style-type: none"> <li>(i) significant historical period layer, altered in form, unlikely to be reversed</li> <li>(ii) new sympathetic layer or representative of a new layer; or</li> <li>(iii) non significant historical period layer.</li> </ul>	<p><b>6.02.01 Alterations &amp; Additions:</b></p> <p>2. Neutral buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained. It may be possible to remove unsympathetic alterations and additions to the neutral building to improve the contextual design and visual impact of the site to reinforce the character of the heritage conservation area.</p> <p><b>6.02.07 Infill Development:</b></p> <p>5. Neutral buildings are retained, recycled and adaptively reused, and their positive contribution to the area or streetscape is maintained.</p>	<p><b>6.02.01 Alterations &amp; Additions:</b></p> <p>6. Alterations and additions to a neutral building are to:</p> <ul style="list-style-type: none"> <li>(a) remove unsympathetic alterations and additions, including inappropriate building elements</li> <li>(b) respect the original building in terms of bulk, form, scale and height</li> <li>(c) minimise the removal of significant features and building elements</li> <li>(d) use appropriate materials, finishes and colours.</li> </ul> <p>7. Alternatives to the retention and reuse of neutral buildings will be considered where it can be demonstrated that:</p> <ul style="list-style-type: none"> <li>(a) retention and reuse of the building is not reasonable having regard to its heritage significance and contribution to the streetscape of the heritage conservation area, structural adequacy and risk to life, and the economic feasibility of refurbishment and reconstruction</li> <li>(b) the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.</li> </ul> <p><b>6.02.07 Infill Development:</b></p> <p>3. Alternatives to the retention and reuse of neutral buildings will be considered where it can be demonstrated that:</p> <ul style="list-style-type: none"> <li>(a) retention and reuse of the building is not reasonable having regard to its heritage significance and contribution to the streetscape of the heritage conservation area, structural adequacy and risk to life, and the economic feasibility of refurbishment and reconstruction</li> <li>(b) the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.</li> </ul>



	Heritage Technical Manual, September 2014		Review of HCAs Final Report, June 2016	Draft Section 6.02 HCAs (For Exhibition)		
Term	Description	Objectives of Development Control	Definition	Definition	Objectives	Controls
<b>Non-contributory buildings</b>	Buildings which have an adverse impact on the precinct because of their scale, design, assertiveness, materials, or because their original qualities have been lost.	Demolition of non contributory buildings is encouraged. The replacement of non contributory buildings with more sympathetic and appropriately designed buildings is favoured. Ameliorate the adverse impact of non contributory buildings through landscaping, appropriate colour scheme, etc.	Non-contributory buildings are intrusive to the streetscape of a heritage conservation area owing to their inappropriate scale, bulk, setback, roof treatment, atypical garage arrangements or materials. Non-contributory buildings may detract from the heritage conservation area streetscape and are suited to redevelopment. The redevelopment of non-contributory buildings provides an opportunity for new development to reinforce the character of the area. Non-contributory buildings provide locations for appropriate infill development.	Non-contributory buildings are buildings that are intrusive to the streetscape of a heritage conservation area because of inappropriate scale, design, bulk, setbacks, setting, roof treatment, atypical garage arrangements or materials. They do not represent a key period of significance, detract from the character of a heritage conservation area, and are suited to redevelopment. They are buildings which are: (i) new detracting development; or (ii) other detracting development.	<p><b>6.02.01 Alterations &amp; Additions:</b></p> <p>3. The detrimental impacts of non-contributory buildings to the area or streetscape are ameliorated or removed. Development on sites containing non-contributory buildings improves the contextual design and visual impact of the site to reinforce the character of the heritage conservation area.</p> <p><b>6.02.07 Infill Development:</b></p> <p>6. Non-contributory buildings provide locations for appropriate infill development. The detrimental impacts of non-contributory buildings to the area or streetscape are ameliorated or removed. Development on sites containing non-contributory buildings improves the contextual design and visual impact of the site to reinforce the character of the heritage conservation area.</p>	<p><b>6.02.01 Alterations &amp; Additions:</b></p> <p>8. Alterations and additions to non-contributory buildings are to: (a) remove inappropriate elements or features that are intrusive to the heritage significance of the heritage conservation area; and (b) respect the prevailing character of the area and street in terms of bulk, form, scale, height and materials.</p> <p>9. Alternatives to the retention of non-contributory buildings will be considered where it can be demonstrated that the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.</p> <p><b>6.02.07 Infill Development:</b></p> <p>4. Alternatives to the retention of non-contributory buildings will be considered where it can be demonstrated that the replacement building will not compromise the heritage significance of the heritage conservation area or streetscape.</p>







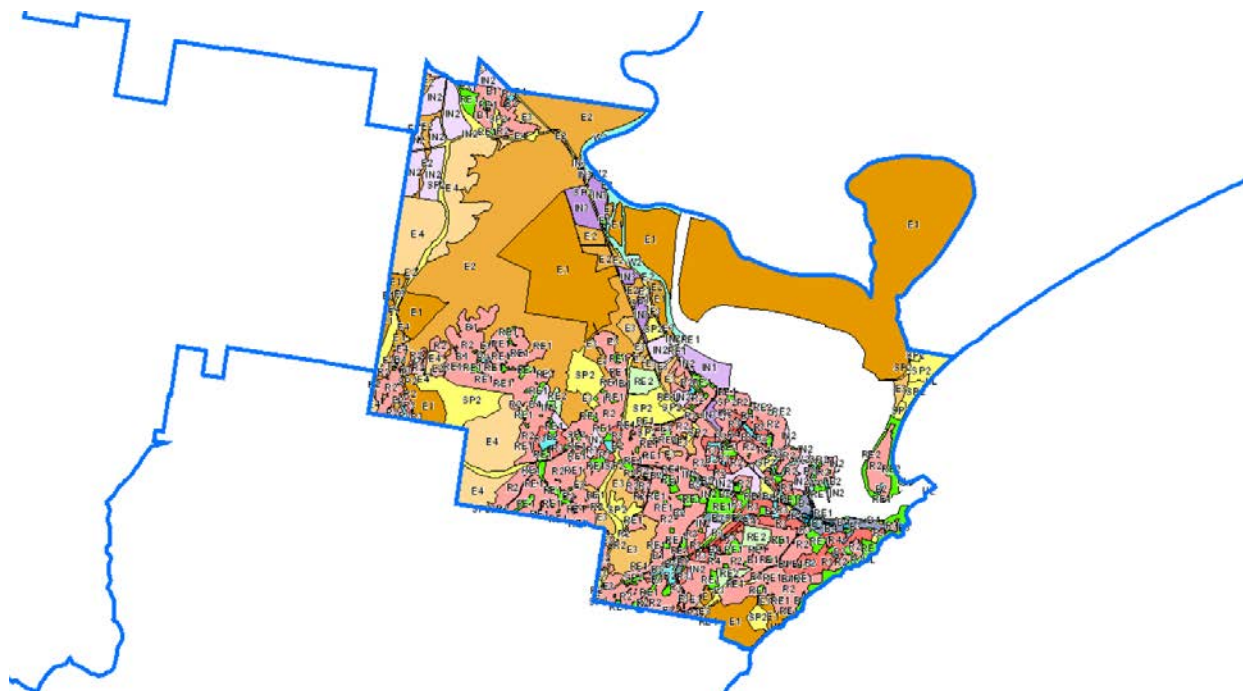
**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
233 WHARF ROAD AND 150 & 150A SCOTT STREET NEWCASTLE  
- ENDORSEMENT OF AMENDMENT TO NEWCASTLE LEP 2012**

**Attachment A:** Planning Proposal

**DISTRIBUTED UNDER SEPARATE COVER**



# Planning Proposal 233 Wharf Road, 150 & 150A Scott Street, Newcastle

Proposed Amendments to Newcastle Local Environmental Plan 2012  
Instrument | Schedule | Mapping

<b>Version</b>	<b>Description</b>	<b>Date</b>
1.	Council endorsement	
2.	DPE requested changes	
3.	Public exhibition	
4.	Final adoption	

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## Summary of proposal

Proposed amendment to Newcastle LEP 2012	<p>Amend mapping with respect to the land:</p> <ul style="list-style-type: none"> <li>– Apply Height of Building of 14 metres</li> <li>– Apply Floor Space Ratio of 2:1</li> <li>– Change the zone from RE1 Public Recreation and SP2 Infrastructure to SP3 Tourism</li> <li>– Include site on Key Site Map</li> </ul> <p>Amend Schedule 4, Part 1 to include 233 Wharf Road, Newcastle</p>
Land application	<p>233 Wharf Road, Newcastle (described as Lot 1 DP 1158422, and</p> <p>Part 150 Scott Street, Newcastle (described as part Lot 4 DP 1226551), and</p> <p>Part 150A Scott Street, Newcastle (described as part Lot 3DP 1226551),</p>
Land Ownership	<p>233 Wharf Road Newcastle – City of Newcastle</p> <p>Part 150 Scott Street, Newcastle – Hunter Central Coast Development Corporation</p> <p>Part 150A Scott Street, Newcastle – Transport for NSW</p>
Initiated by	City of Newcastle

## Overview

Council resolved on 27 September 2016 to endorse a Planning Proposal for surplus rail corridor land between Worth Place and Watt Street, Newcastle and to forward the Planning Proposal to the Minister for Planning and Environment for Gateway Determination. On 13 December 2016, Gateway Determination was issued by the NSW Department of Planning and Environment.

The Gateway Determination included several conditions, including the removal of Parcel 12 (Part 150 Scott Street, Newcastle) from the Planning Proposal; the DPE provided the following reasons for their decision:

*"In making this determination, I have carefully considered the proposed rezoning of Parcel 12. I understand the challenges that this site has posed for Council when determining planning controls, particularly considering the uncertainty regarding the longer term future of the adjacent land. As such I have determined not to support Parcel 12 proceeding as part of the broader planning proposal. I am of the opinion that Parcel 12 should not proceed separately but as a consolidated proposal for both the site and the adjacent council owned land."*

Newcastle Local Environmental Plan 2012 (Amendment No 32) in relation to the rezoning of the Rail Corridor, was Gazetted on the 17 April 2018.

Further investigation into the future use of Parcel 12 (currently owned by Hunter Central Coast Development Corporation HCCDC) and 233 Wharf Road Newcastle has been undertaken by staff in consultation with HCCDC. It is proposed to include the consolidated site on the key sites map to ensure a high-quality design outcome is achieved.

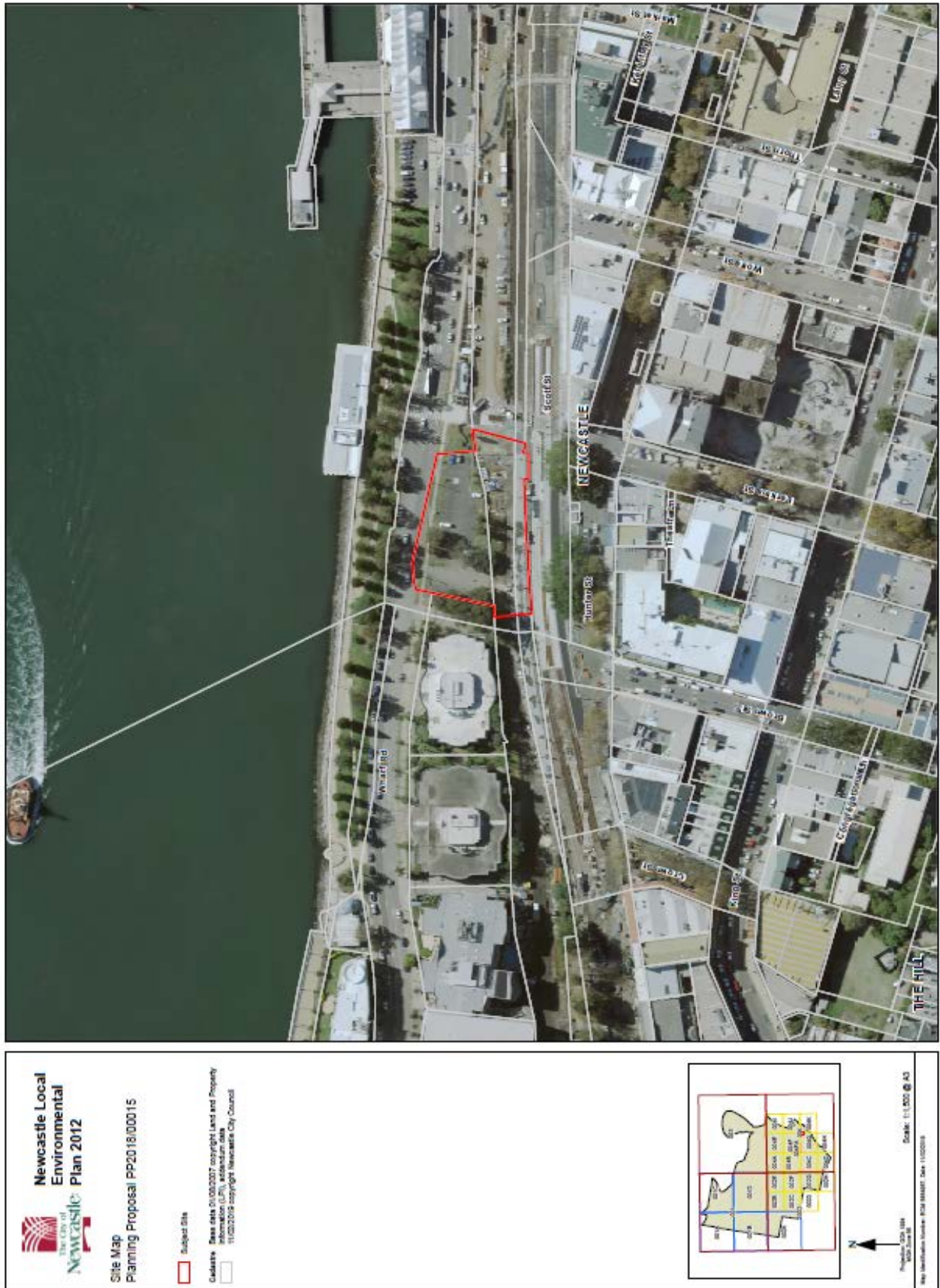
Development application DA2012/00463 was approved under delegation on 7 February 2019 for the subdivision of the land to provide for separate allotments for the Newcastle Station, Market Street Lawn, the Signal Box and Parcel 12. The subdivision would facilitate the dedication of Parcel 12 and Market Street Lawn to CN.

233 Wharf Road, Newcastle will continue to be used as a car park in the short to medium term.

Following the deferral of Parcel 12, the lot was subdivided to facilitate the light rail works. 150A Scott Street Newcastle is currently owned by Transport for NSW but will be dedicated to City of Newcastle as the site comprises, footpath, light poles and street trees. This site is also zoned SP2 Infrastructure and as such is proposed to be included in this Planning Proposal to ensure an appropriate zone is applied to the site.

# Context

Figure 1 Local of site



## Part 1 - Objectives or intended outcomes

To amend Newcastle Local Environmental Plan 2012 (NLEP2012) to enable:

- a. rezoning of land to reflect current and envisaged future use
- b. Reclassification of 233 Wharf Road Newcastle from Community to Operational land
- c. redevelopment of the site as a multi purpose community space that complements the surrounding land uses.

## Part 2 - Explanation of provisions

It is proposed to amend the NLEP2012 by:

- Including 233 Wharf Road Newcastle within Part 1 – Land classified or reclassified, as operational land – no interests changed within Schedule 4 Classification and reclassification of public land, as follows:
  - a) Column 1 to read “*Newcastle*”
  - b) Column 2 to read “Lot 1, DP 1158422, 233 Wharf Road”.
- Amending Map LZN\_004G by rezoning 233 Wharf Road Newcastle from RE1 Public Recreation to SP3 Tourist and rezone part 150 and 150A Scott Street from SP2 Infrastructure (Railway) to SP3 Tourist.
- Amending Map HOB\_004G by including a maximum building height of 14 metres to all sites.
- Amending Map FSR\_004G to include a maximum permissible floor space ratio of 2:1 to all sites
- Amending Map LSZ\_004G to remove the minimum lot size for 233 Wharf Road Newcastle
- Amending Map CL1\_004G to include 233 Wharf Road and Part 150A Scott Street Newcastle on the Key Sites Map.

Figure 2 – Existing Land Classification

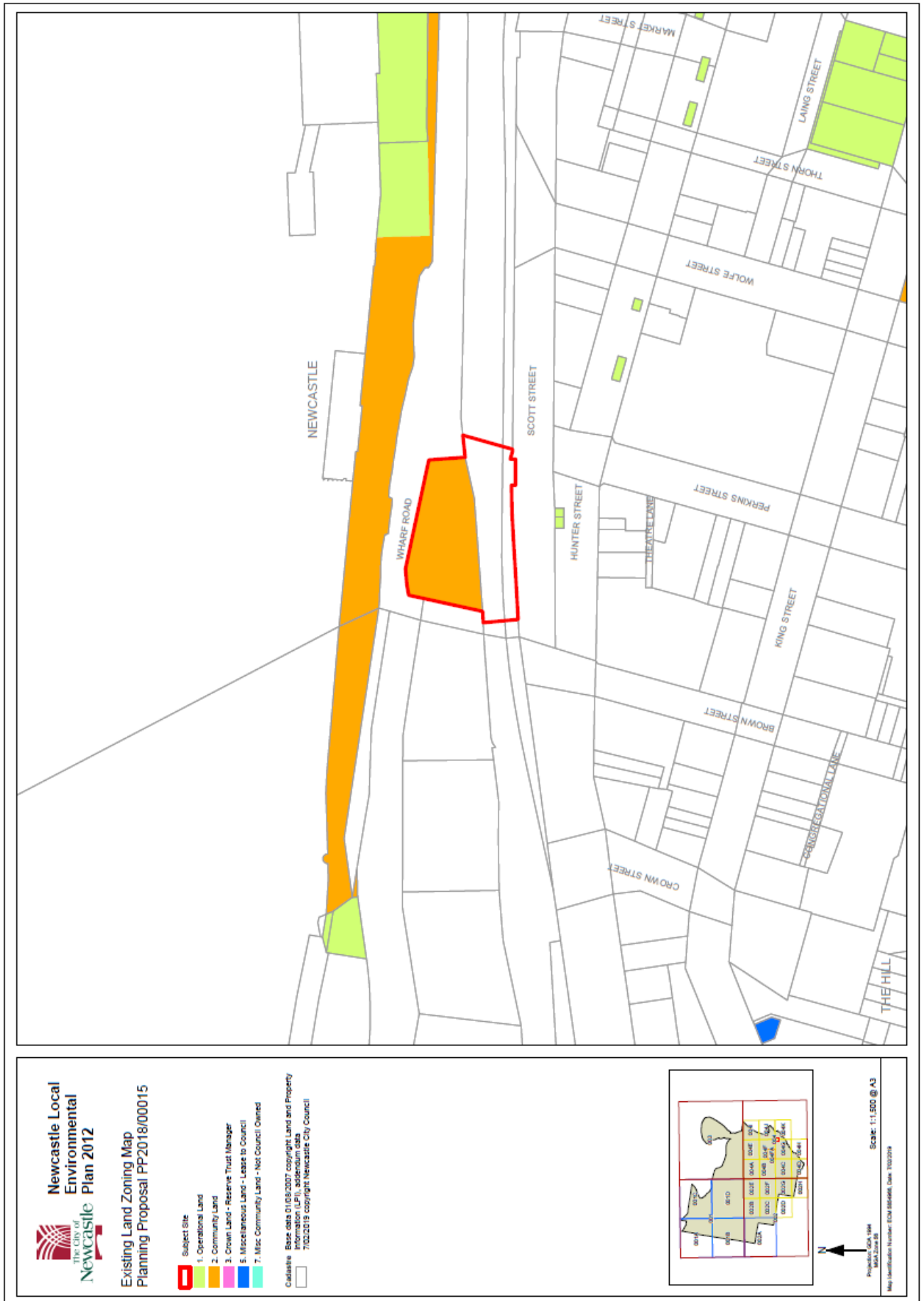


Figure 3 – Proposed Land Classification

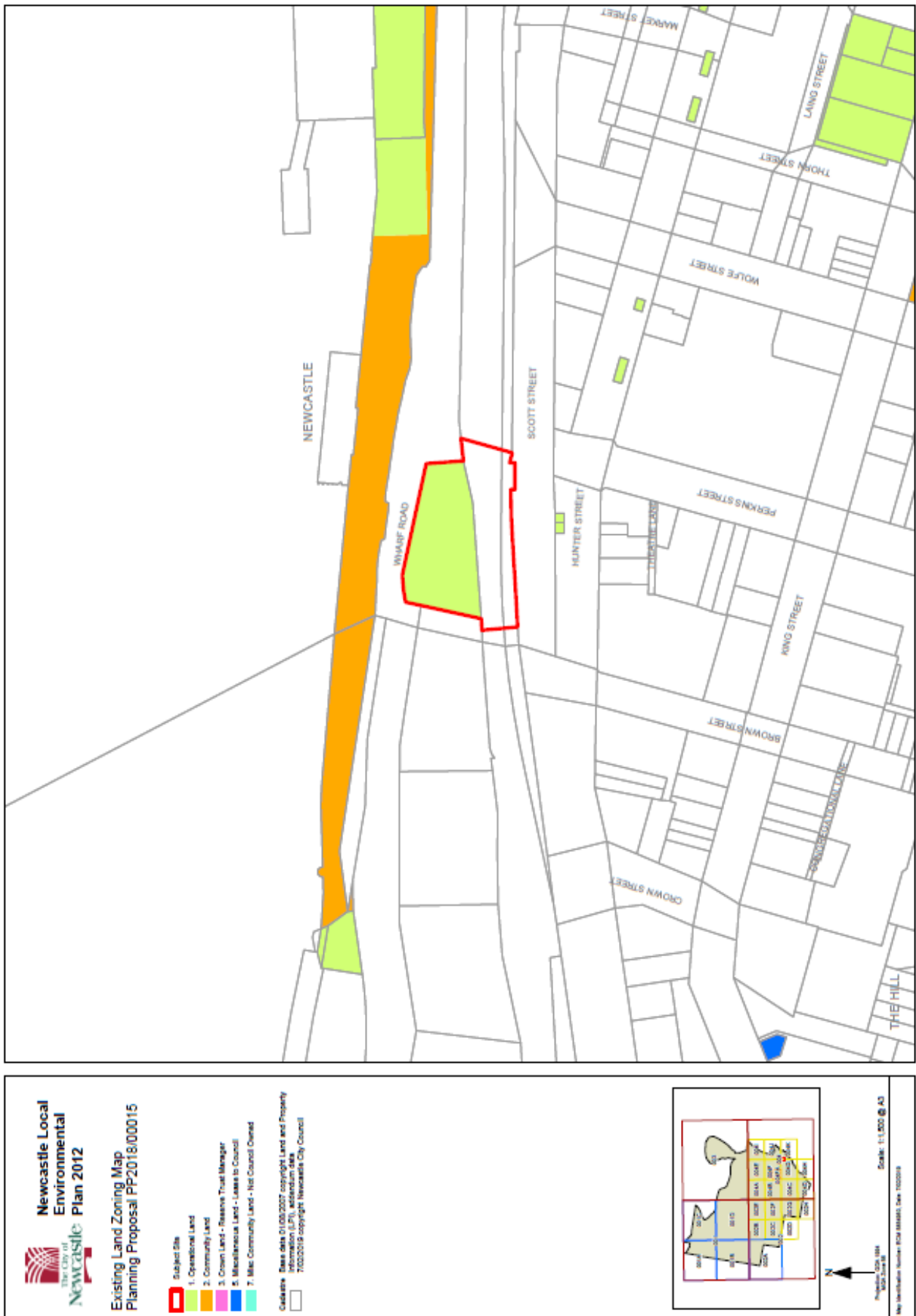


Figure 4 – Existing Zone



Figure 5 – Proposed Zone





Figure 6 – Existing Height of Building

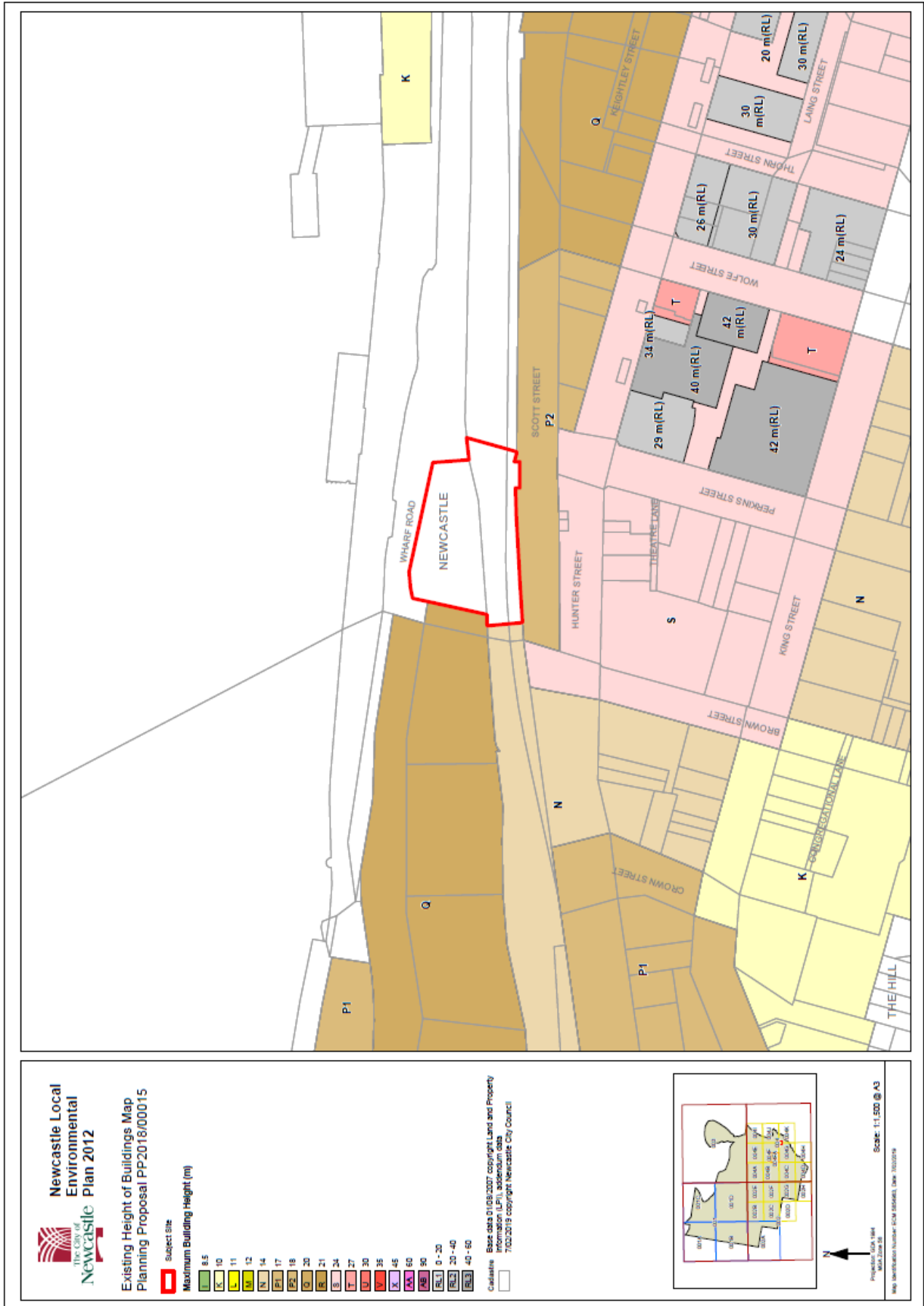


Figure 7 – Proposed Height of Building

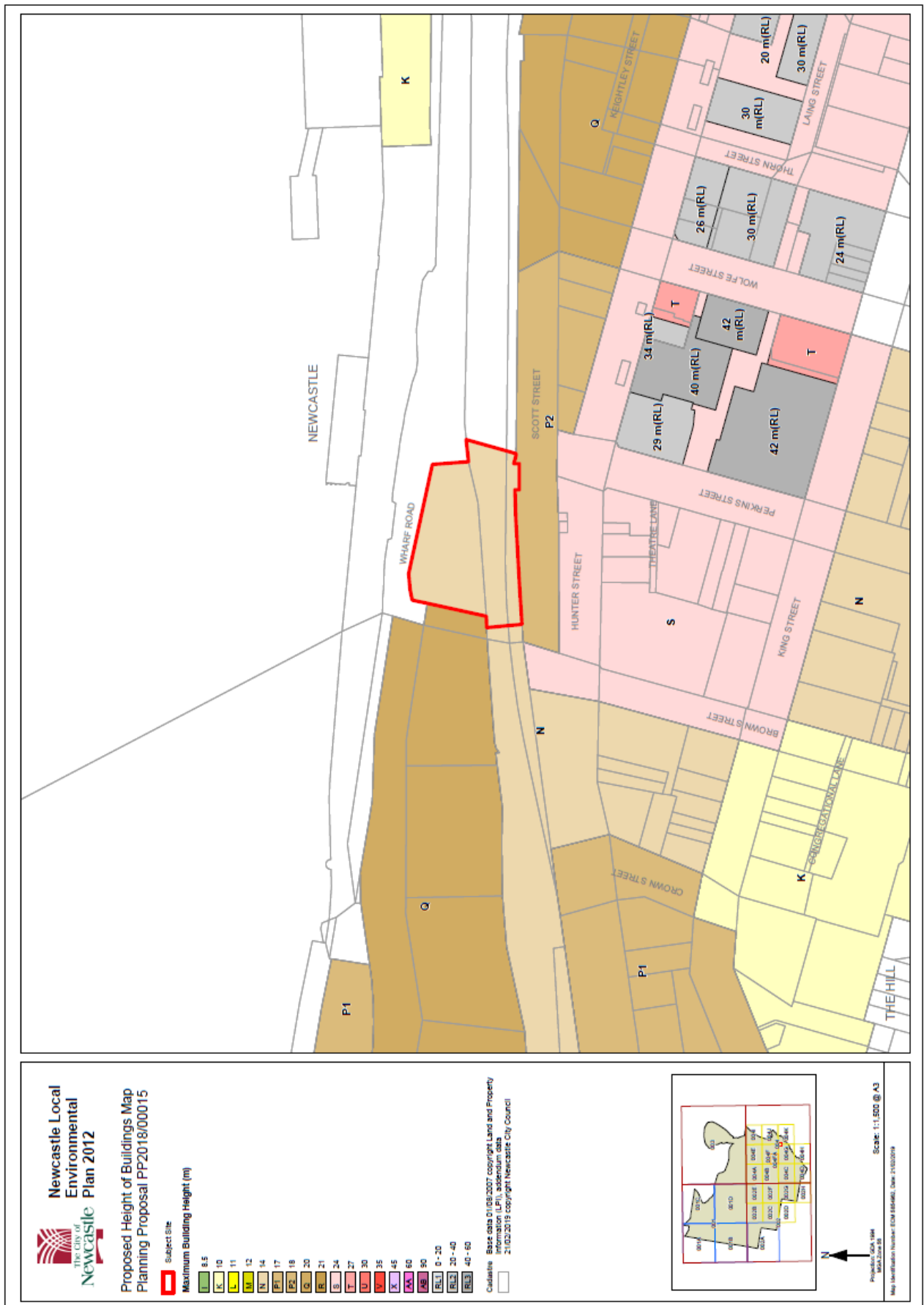


Figure 8 – Existing Floor Space Ratio

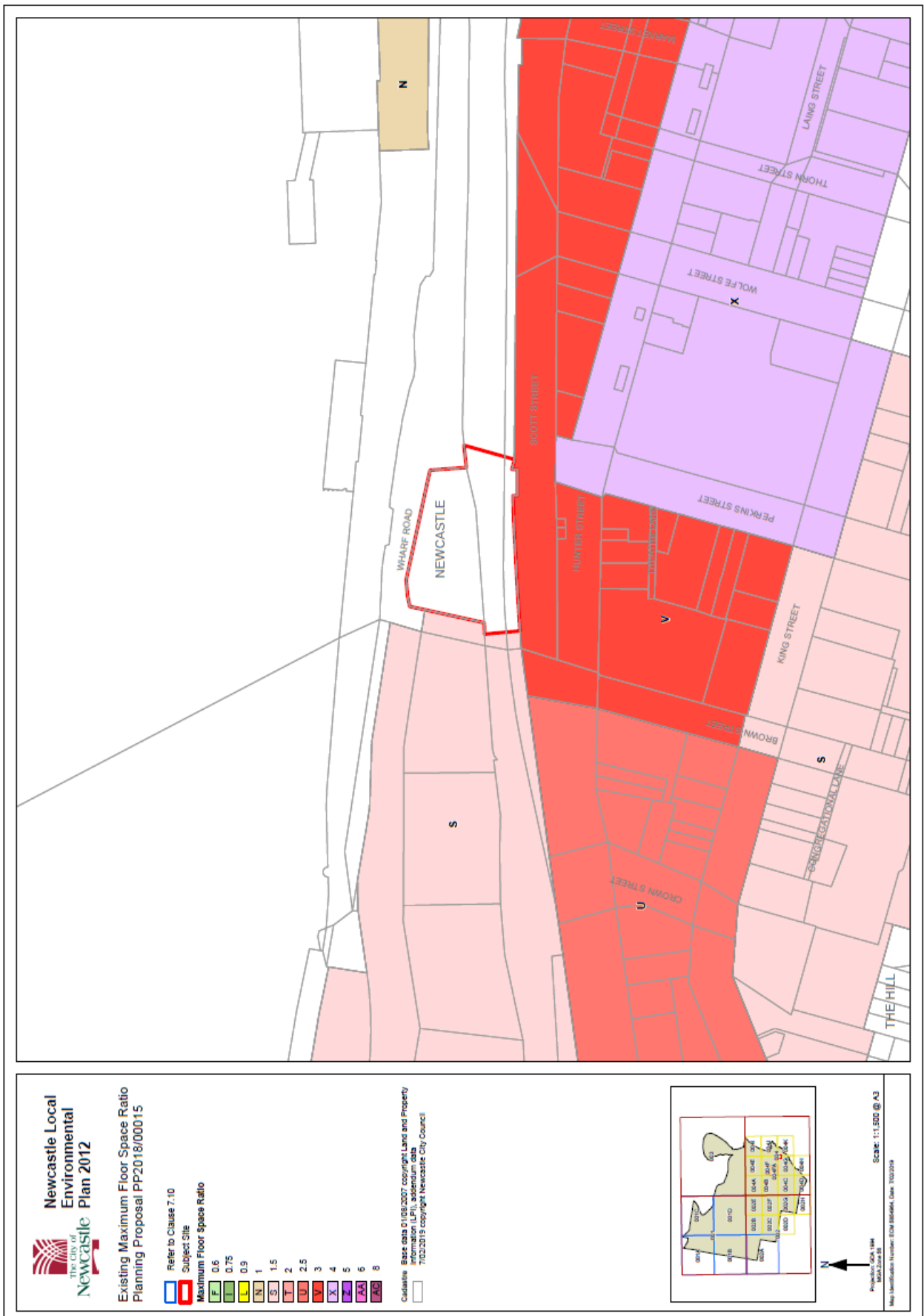


Figure 9 – Proposed Floor Space Ratio

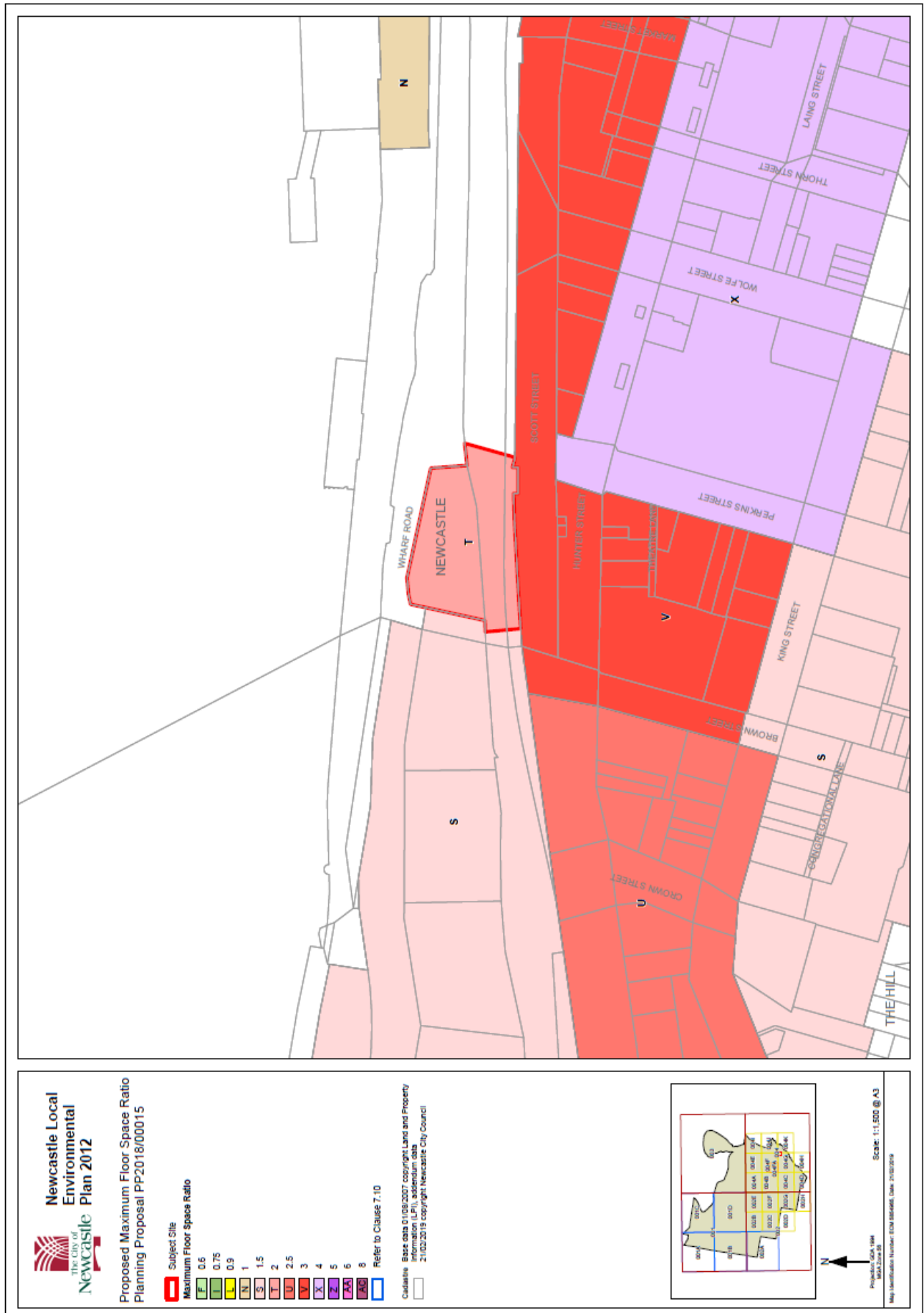


Figure 10 – Existing Minimum Lot Size

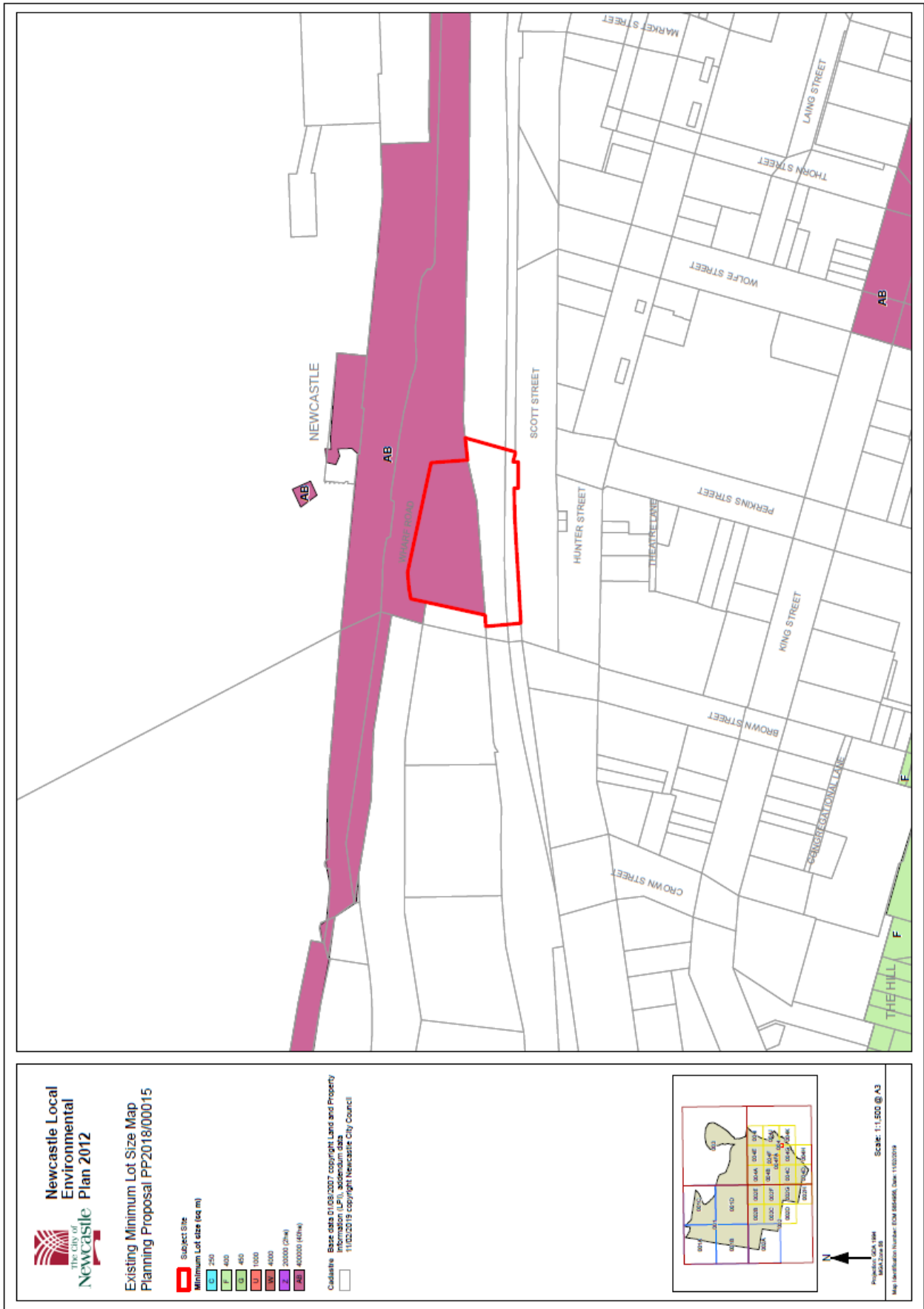


Figure 11 – Proposed Minimum Lot Size

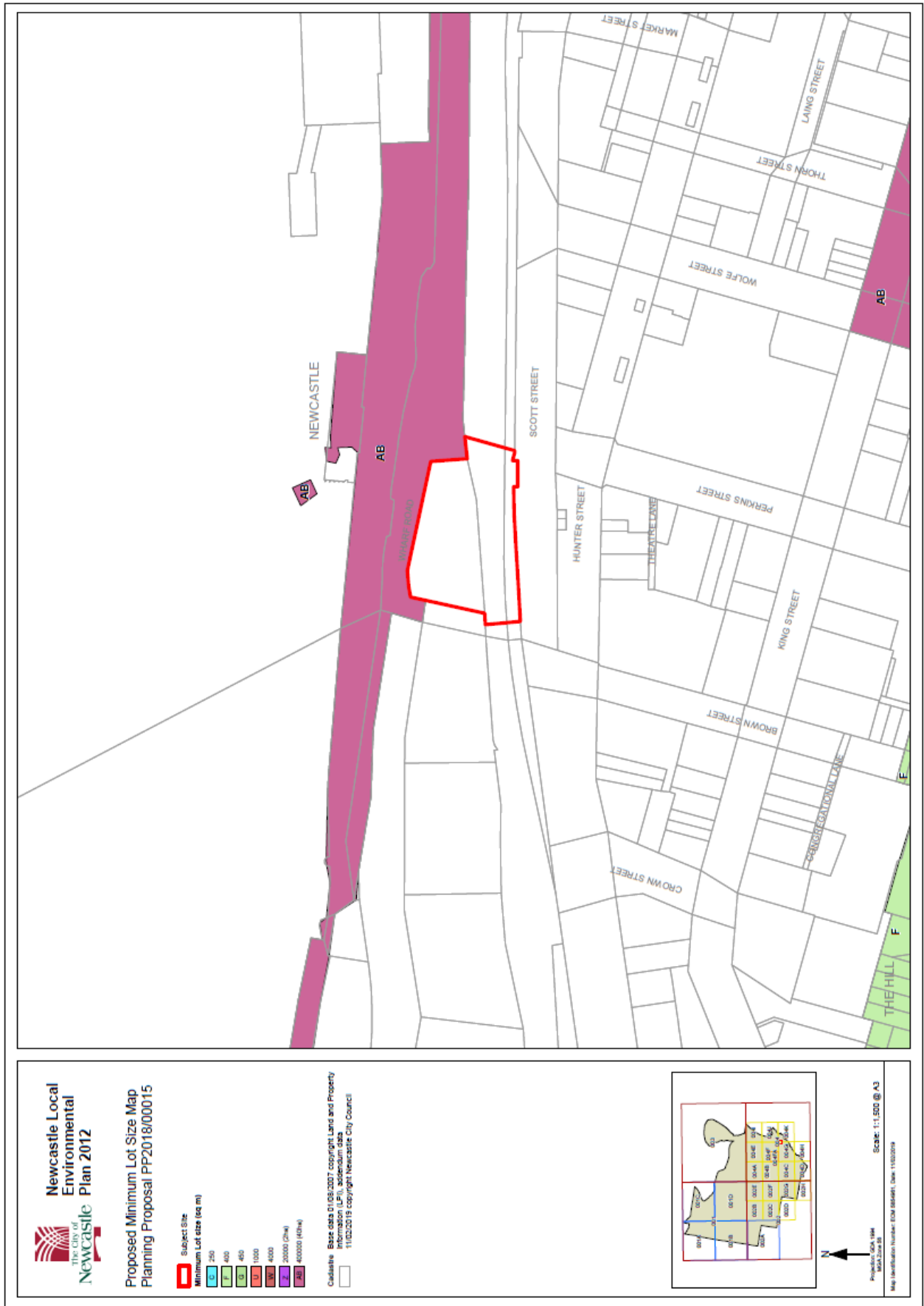


Figure 12 – Existing Key Site Map







## Part 3 - Justification

### Section A - Need for the planning proposal

#### 1. *Is the planning proposal a result of any strategic study or report?*

UrbanGrowth NSW prepared the Newcastle Urban Transformation and Transport Program which provides the following objectives.

1. *Bring people back to the city centre*

*Re-imagine the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain that will attract people.*

2. *Connect the city to its waterfront*

*Unite the city centre and the harbour to improve the experience of being in and moving around the city.*

3. *Help grow new jobs in the city centre*

*Invest in initiatives that create jobs, with a focus on innovative industries, higher education and initiatives to encourage a range of businesses to the city centre.*

4. *Create great places linked to new transport*

*Integrate urban transformation with new, efficient transport to activate Hunter and Scott Streets and return them to thriving main streets.*

5. *Creating economically sustainable public domain and community assets*

*Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future.*

6. *Preserve and enhance heritage and culture*

*Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities."*

As part of this program an amendment to the NLEP2012 was made to rezone the surplus rail corridor land between Worth Place and Watt Street. During this process the Department of Planning and Environment decided as part of the Gateway Determination to defer Parcel 12 (part 150 Scott Street Newcastle), to allow for the long term use of the site to be considered in conjunction with 233 Wharf Road Newcastle (City of Newcastle's adjacent car park).

This planning proposal has been prepared in response to the Gateway Determination issued as part of the previous rezoning.

***2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?***

Yes, amending the Newcastle LEP 2012 is considered the best means of achieving the objectives of the planning proposal.

The rezoning and reclassification of the land will allow for the future planning and delivery of a multi purpose community space that is compatible with surrounding land uses and meets the needs of the future population.

## Section B - Relationship to strategic planning framework

### 3. *Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?*

#### Hunter Regional Plan 2036

The Hunter Regional Plan 2036 was released by the NSW Government in October 2016. The Plan contains an overarching vision for the Hunter Region, supported by four goals, 27 directions and associated actions. It also contains local government narratives.

The Planning Proposal is consistent with plan and the proposed rezoning supports the role of the Newcastle City Centre provided within the Hunter Regional Plan 2036:

*"Newcastle City Centre is the heart of Greater Newcastle and the capital of the region. The city centre has been transformed by capitalising on its active port, vibrant waterfront and heritage. It hosts more residents, students, businesses, researchers, educators and entrepreneurs than ever before."*

The relevant goals and directions are outlined below:

Goal	Directions
<p>The planning proposal particularly supports Goal 1 - The leading regional economy in Australia.</p> <p>This goal includes a priority for revitalisation of the Newcastle City Centre.</p>	<p>The planning proposal supports Direction 3 - Revitalise Newcastle City Centre.</p>
<p>The planning proposal supports Goal 3 - Thriving communities</p>	<p>The planning proposal includes additional community space that will support the adjacent public recreation zoned land and supports Direction 18 - Enhance access to recreational and connect open space.</p>

- Newcastle - Local Government Narrative

The narrative of the Regional Plan builds upon the above vision, goals and directions and applies these to the Newcastle Local Government Area. The planning proposal supports the priorities for the Newcastle City Centre. The proposal includes areas that will *"Strengthen connections between the city and the waterfront and improve civic spaces"*.

## Greater Newcastle Metropolitan Plan 2036

The Hunter Regional Plan 2036 set the vision for the Hunter to be the leading regional economy in Australia with a vibrant new metropolitan city at its heart. The Greater Newcastle Metropolitan Plan sets out outcomes to be achieved within the Newcastle local government area and identifies Newcastle City Centre as catalyst area, highlighting the importance of the area to the broader Hunter Region.

The planning proposal is consistent with the following outcomes for the Newcastle City Centre Catalyst area:

- transform spaces for public open space, new shops and residential opportunities, and connecting the city to the waterfront
- encourage additional civic and cultural activities that reinforce the cultural axis from Civic Park to the waterfront.

### **4. *Is the planning proposal consistent with a council's local strategy or other local strategic plan?***

#### **Newcastle 2030 Community Strategic Plan**

The Newcastle Community Strategic Plan (CSP) was adopted by Council in February 2011 and updated in 2013 and 2018. The plan identifies the community's vision for the city, outlines actions and strategies for Council to achieve, as well as indicators for monitoring implementation.

Compliance with the LEP amendment process, in particular section 3.4 of the *EP&A Act 1979* ensures consistency with the strategic direction 'Open and Collaborative Leadership' and the strategic objective to "Active citizen engagement in local planning decision-making processes and a shared responsibility for achieving goals".

Furthermore the planning proposal is consistent with the following strategic directions and objectives:

- Vibrant, safe and active public places
- Inclusive Community
- Smart and innovative
- Open and Collaborative Leadership

#### **Newcastle Urban Renewal Strategy (NURS)**

The Newcastle Urban Renewal Strategy (NURS) 2012 and 2014 update is the principal land use strategy for the Newcastle City Centre. It is guided by nine guiding principles outlined below:

1. *Opportunities to grow and expand*
2. *Economic viability and competition*
3. *Busy and vibrant city centre*
4. *Integrity and viability*

5. *Investment, employment and growth*

6. *Transport, access and connectivity*

7. *Housing mix and affordability*

8. *Retail variety and choice*

9. *Provide for future employment growth*

A specific initiative of the NURS 2014 update was to connect the city with its waterfront. The proposal to rezone the subject land to SP3 Tourist will provide the opportunity for a multi purpose community space to be investigated that will facilitate connections to the waterfront and provide a compatible use to the adjacent Market Street Lawn.

### **Local Planning Strategy**

The Local Planning Strategy was adopted by Council in 2015 and was prepared in accordance with the Community Strategic Plan.

The Strategy was not endorsed by the Secretary of the Department of Planning and Environment but provides a comprehensive guide for the future growth and development of Newcastle to 2030 and beyond. The planning proposal is generally consistent with the principles of the strategy.

### **5. *Is the planning proposal consistent with applicable State Environmental Planning Policies?***

The table below provides an assessment of the proposed amendment against each State Environmental Planning Policy (SEPP) applying at the time of preparing this planning proposal.

The assessment undertaken firstly identified which SEPP applies to the proposal, determined by the SEPP applying to both:

- a. the land; and
- b. the preparation of environmental planning Instruments.

Where applicable, the table identifies how the planning proposal addresses the requirements of the SEPP.

**Table 1 - Relevant State Environmental Planning Policies**

State Environmental Planning Policies	Applicable	Consistency and Implications
SEPP No 1—Development Standards	No	
SEPP No 19—Bushland in Urban Areas	No	
SEPP No 21—Caravan Parks	No	
SEPP No 30—Intensive Agriculture	No	
SEPP No 33—Hazardous and Offensive Development	No	
SEPP No 36—Manufactured Home Estates	No	
SEPP No 44—Koala Habitat Protection	Yes	The SEPP applies to the entire LGA, however, the land is urban and does not consist of areas of koala habitat.
SEPP No 47—Moore Park Showground	No	
SEPP No 50—Canal Estate Development	No	
SEPP No 52—Farm Dams and Other Works in Land and Water Management Plan Areas	No	
SEPP No 55—Remediation of Land	Yes	<p>A preliminary geotechnical assessment by Douglas Partners has been carried out of the former rail corridor between Worth Place and Watt Street.</p> <p>In accordance with Clause 6 Contamination and remediation to be considered in zoning or rezoning proposal, of the SEPP.</p> <ul style="list-style-type: none"> <li>• The land is identified as contaminated and the SEPP applies.</li> <li>• As per the recommendations of the geotechnical assessment the land can be made suitable after remediation for all the purposes for which the land is permitted to be used.</li> </ul> <p>See Section 8 of this planning proposal for further details.</p>
SEPP No 62—Sustainable Aquaculture	No	
SEPP No 64—Advertising and Signage	No	
SEPP No 65—Design Quality of Residential Apartment Development	No	
SEPP No 70—Affordable Housing (Revised Schemes)	No	
SEPP (Affordable Rental Housing) 2009	No	
SEPP (Building Sustainability Index: BASIX) 2004	No	
SEPP (Educational Establishments and Child Care Facilities) 2017	No	
SEPP (Exempt and Complying Development Codes) 2008	No	
SEPP (Housing for Seniors or People with a Disability) 2004	No	
SEPP (Infrastructure) 2007	No	
SEPP (Integration and Repeals) 2016	No	
SEPP (Kosciuszko National Park—Alpine Resorts) 2007	No	
SEPP (Kurnell Peninsula) 1989	No	
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	No	
SEPP (Miscellaneous Consent Provisions) 2007	No	

State Environmental Planning Policies	Applicable	Consistency and Implications
SEPP (Penrith Lakes Scheme) 1989	No	
SEPP (Rural Lands) 2008	No	
SEPP (State and Regional Development) 2011	No	
SEPP (State Significant Precincts) 2005	No	
SEPP (Sydney Drinking Water Catchment) 2011	No	
SEPP (Sydney Region Growth Centres) 2006	No	
SEPP (Three Ports) 2013	No	
SEPP (Urban Renewal) 2010	Yes	The area subject to this planning proposal is wholly within land to which Newcastle Potential Precinct Map applies. The requirements of Clause 9 <i>Proposals for potential precincts</i> were satisfied by the preparation of the Newcastle Urban Renewal Strategy (NURS).
SEPP (Vegetation in Non-Rural Areas) 2017	No	
SEPP (Western Sydney Employment Area) 2009	No	
SEPP (Western Sydney Parklands) 2009	No	
SEPP (Coastal Management) 2018	Yes	The subject land is within the Coastal Use Area. The planning proposal is acceptable in relation to the matters for consideration specified under Clause 14 as applying to the preparation of a draft LEP with regard to future use of the land.  The more detailed matters of this SEPP will also be considered during the assessment of any future DA.

## 6. Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?

The table below documents Council's assessment of the planning proposal against the relevant Ministerial Directions made under Section 9.1 of the EP&A Act 1979 (formerly known as Section 117 Directions).

**Table 2 - Relevant Ministerial Directions**

Relevant Section 9.1 Directions	Applicable	Consistency and implications
<b>1. Employment and Resources</b>		
1.1 Business and Industrial Zones	Yes	The planning proposal does not reduce existing business and industrial zones, or the total potential floorspace area for employment uses in business or industrial zones
1.2 Rural Zones	No	
1.3 Mining, Petroleum Production and Extractive Industries	No	
1.4 Oyster Aquaculture	No	
1.5 Rural Lands	No	
<b>2. Environment and Heritage</b>		
2.1 Environment Protection Zones	Yes	Whilst the Direction applies, the planning proposal will have no effect on, or be affected by areas of environmental sensitivity. Hence the proposal is of minor significance.
2.2 Coastal Protection	Yes	The Proposal is within the Coastal Use Area but does not impact or would be impacted by coastal processes or hazards. The proposed HOB is compatible with the context of the area.
2.3 Heritage Conservation	Yes	<p>The planning proposal relates to land potentially containing aboriginal and archaeological items culture items as detailed under the Heritage Assessment Report.</p> <p>This planning proposal does not propose to alter the heritage conservation provisions of the LEP.</p> <p>The proposed HOB map has had regard to heritage items, including scale interface with built heritage items.</p> <p>A heritage interpretation framework has been included in the heritage assessment to guide a consistent interpretation strategy across the rail corridor, which will be developed at development application stage.</p> <p>Refer to Section C, clause 8 for further discussion.</p>
2.4 Recreation Vehicle Areas	No	
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	No	
<b>3. Housing, Infrastructure and Urban Development</b>		
3.1 Residential Zones	no	



Relevant Section 9.1 Directions	Applicable	Consistency and implications
3.2 Caravan Parks and Manufactured Home Estates	No	
3.3 Home Occupations	No	
3.4 Integrating Land Use and Transport	Yes	The proposal will facilitate new development within walking distance to transport and services and is therefore consistent with the objectives.
3.5 Development Near Licensed Aerodromes	No	
<b>4. Hazard and Risk</b>		
4.1 Acid Sulfate Soils	Yes	<p>The planning proposal relates to land affected by Acid Sulfate Soils (ASS) under Newcastle LEP 2012.</p> <p>Any potential impact from ASS can be managed with the remediation works to be carried out and with the implementation of an ASS management plan.</p> <p>The Department of Planning and Environment has advised that the inconsistency with this Direction is of minor significance and no further approval is required.</p>
4.2 Mine Subsidence and Unstable Land	Yes	<p>The site is within the Newcastle Mines Subsidence District. The submitted geotechnical and contamination assessment by Douglas Partners, includes a letter from Mine Subsidence Board (MSB), dated 14 January 2016, outlining preliminary consultation with the MSB for works within the surplus rail corridor between Worth Place and Watt Street.</p> <p>The letter confirms that future development would require approval from the MSB and that larger scale development would be subject to merit assessment based upon engineered solutions having regards to further detailed investigations. The letter from MSB does not indicate that future development would be precluded.</p> <p>The gateway determination issued 22 December 2016 for the rezoning of the rail corridor between Worth Place and Watt Street required no further consultation with MSB. Future development would require approval from MSB at the development application stage.</p>

Relevant Section 9.1 Directions	Applicable	Consistency and implications
4.3 Flood Prone Land	Yes	<p>Generally consistent.</p> <p>A Flood Risk Assessment by BMT WBM is at Appendix D which details consistency with the direction in detail.</p> <p>The Newcastle LEP does not contain flood management provisions and this is not proposed to be altered. Flood management provisions are contained in the Newcastle DCP 2012 and these will continue to apply and are consistent with the NSW Flood Prone Land Policy and Floodplain Development Manual 2005, as required by the direction.</p>
4.4 Planning for Bushfire Protection	No	
<b>5. Regional Planning</b>		
5.1 Implementation of Regional Strategies	No	
5.2 Sydney Drinking Water Catchments	No	
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	No	
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	No	
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA) (Revoked 18 June 2010)	No	
5.6 Sydney to Canberra Corridor (Revoked 10 July 2008. See amended Direction 5.1)	No	
5.7 Central Coast (Revoked 10 July 2008. See amended Direction 5.1)	No	
5.8 Second Sydney Airport: Badgerys Creek	No	
5.9 North West Rail Link Corridor Strategy	No	
5.10 Implementation of Regional Plans	Yes	<p>The Hunter Regional Plan 2036 applies to the land. As outlined under section 3 previously, this planning proposal is consistent with the vision, goals, directions and actions, along with the narrative for Newcastle Local Government Area, within the Regional Plan. In summary the planning proposal supports the role for the Newcastle City Centre within the overall vision for the Hunter Region by capitalising on the vibrant waterfront and heritage, facilitating more residents, businesses and education uses, within an existing urban area to maximise use of infrastructure and services.</p>
<b>6. Local Plan Making</b>		

Relevant Section 9.1 Directions	Applicable	Consistency and implications
6.1 Approval and Referral Requirements	Yes	The planning proposal does not include any provisions that will require development application to seek approval or referral from any other public authority. Council will consult with public authorities prior to public exhibition in accordance with any conditions imposed on the planning proposal during Gateway determination.
6.2 Reserving Land for Public Purposes	No	
6.3 Site Specific Provisions	No	
<b>7. Metropolitan Planning</b>		
7.1 Implementation of A Plan for Growing Sydney	No	

The Department of Planning and Environment's Practice Note PN 10-001 includes a checklist for proposals to classify or reclassify public land through an LEP. The information required to be addressed in the checklist for 233 Wharf Road, Newcastle is included in the table below:

Criteria	Comment
The current and proposed classification of the land.	Current: Community Proposed: Operational
Whether the land is a 'public reserve' as defined in the LG Act	Yes the land is defined as a public reserve under the Local Government Act
The strategic and site specific merits of the reclassification and evidence to support this.	Refer to part 3 (justification of the planning proposal for further information)
Whether the planning proposal is consistent with Council's community plan or other local strategic plan	Yes the planning proposal is consistent with Council's strategies
A summary of Council's interests in the land: <ul style="list-style-type: none"> <li>How and when the land was first acquired</li> <li>If Council does not own the land, the land owners consent</li> <li>The nature of any trusts, dedications etc.</li> </ul>	The Land was conveyed to CN from the Commissioner for Railways in March 1940. There are no other trusts or dedications
Whether any interests in the land are proposed to be discharged and if so an explanation of the reasons why.	There are no known easements or other encumbrances affecting the site.
The effect the reclassification (including the loss of public open space, the land ceased to be a public reserve or particular interests will be discharged).	The effect of the reclassification is to enable the site to be developed by the City of Newcastle as a multi purpose community space. The land is used as a car park and not part of Council's formally managed parklands.
Evidence of public reserve status or relevant interests, or lack thereof applying to the land. (eg. electronic searches, notice in Government Gazette, trust documents).	The sale of the parcel of land to Council is noted in Deed (Book 1866 No 844).
Current use(s) of the land and whether uses are authorised or unauthorised.	The site is used as an approved car park.
Current or proposed lease or agreements applying to the land, together with their duration, terms and controls.	NIL
Current or proposed business dealings (eg. agreement for the sale or lease of the land, the basic details of any such agreement and if relevant, when council intends to realise its asset, either immediately after rezoning/reclassification or at a later time).	NIL – there are no plans for CN to dispose of this asset.

Any rezoning associated with reclassification (if yes, need to demonstrate consistency with an endorsed Plan of Management or Strategy).	The site is proposed to be rezoned to SP3 Tourist to form a consolidated development site with 150 Scott Street Newcastle. The rezoning is consistent with CNs strategies. Refer to the Planning Proposal for further detail.
How Council may or will benefit financially, and how these funds will be used.	CN is not intending to sell the site.
How Council will ensure funds remain available to fund proposed open space sites or improvements referred to in justifying the reclassification, if relevant to the proposal.	N/A
A Land Reclassification (part lots) Map, in accordance with any standard technical requirements for spatial datasets and maps, if land to be reclassified does not apply to the whole lot.	N/A
Preliminary comments by a relevant government agency, including an agency that dedicated the land to Council, if applicable.	N/A

## Section C - Environmental, social, and economic impact

### **7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

233 Wharf Road, is currently used as a car park with 150 & 150A Scott Street formerly developed for railway purposes. The planning proposal has no potential for critical habitat or threatened species, populations or ecological communities, or their habitats, to be adversely affected.

### **8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?**

#### **Heritage**

A Heritage Assessment Report (Appendix A) was completed for the surplus rail corridor lands between Worth Place and Watt Street.

The Report considered the potential impact of works on potential Aboriginal sites, built heritage structures and archaeological and potential archaeological sites with the study area. The Report also provided advice on the planning approval process required and provides recommendations for mitigation against adverse heritage impact.

A search undertaken of the Aboriginal Heritage Information Management System (AHIMS) identified that no Aboriginal sites are present in the Rezoning Study Area. However, the literature review and previous archaeological work suggests that subsurface Aboriginal heritage will be present within the surplus corridor between Worth Place and Watt Street Newcastle.

In reference to built heritage there are six heritage places in close proximity to the proposed site; the Newcastle Railway Station and the Newcastle Railway Station Additional Group (both on the State Heritage Register and of State heritage significance); the Civic Railway Workshop Group (Newcastle Museum); the remains of AA Co. Bridge and Fence and the former Tramway Substation (NLEP 2012 Schedule 5 and of local heritage significance). The Civic Station (Section 170 Register) is not listed under NLEP.

There are a number of archaeological sites and potential archaeological sites in the surplus rail corridor land between Worth Place and Watt Street including the: Mortuary Station; Civic Railway Station; Civic Railway Workshops curtilage; Newcastle Railway Station; and Convict Huts.

The Report's recommendations are supported and have demonstrated that heritage matters can be addressed under future development by:

- Mitigation methods for Aboriginal archaeological sites including that a heritage interpretation strategy be prepared.
- The mitigation for built heritage including visual analysis, construction considerations, adaptive reuse and full consideration of any demolition.

The report indicates that *"Any new buildings should be designed in accordance with the requirements of the Newcastle City Council requirements for the Newcastle City Centre Heritage Conservation Area."*

Additional assessment will occur at development application (DA) stage, however the appropriate built form (bulk and scale) cannot be entirely deferred until assessment of a DA. A review of the

Section 6.01 City Centre of the Newcastle Development Control Plan is being undertaken to determine appropriate planning controls for the site.

## **Traffic and Parking**

A Traffic Impact Assessment (Appendix B) was prepared for the surplus rail corridor between Worth Place and Watt Street, based on demand generated by approximately 585 dwellings and 5,200m<sup>2</sup> of gross floor area for non-residential uses. The Traffic Impact Assessment over estimated the impacts from development, due to the development foot print being reduced during the assessment of the previous rezoning.

While the traffic impact assessment did not assess development on 233 Wharf Road, it did overestimate the amount of development within the rail corridor and as such the traffic impacts are considered acceptable. The TIA predicted 3,900 (two-way) additional traffic movements, which modelling shows could be accommodated within the existing road network.

Future development would be subject to the requirements of the Newcastle DCP 2012 and would be required to undertake a detailed traffic and transport assessment.

233 Wharf Road, Newcastle operates as a public car park, the use of this site in the short term is not proposed to change. The parking requirements for any future development will be assessed as part of any detailed design of the site which will be subject to a Development Application.

## **Services**

CN's Infrastructure Planning Section has identified a need to ensure that there is sufficient room within the corridor for 'future proofing' of services, in particular adequate space for stormwater infrastructure and overland flow paths. The critical aspect will be to ensure future building footprints provide space between for these services to be accommodated.

The comments from CN staff will be incorporated into the review of NDCP 2012 Section 6.01 Newcastle City Centre.

## **Geotechnical and Contamination**

Douglas Partners prepared a geotechnical and contamination assessment (Appendix C) for the surplus rail corridor between Worth Place and Watt Street. The Assessment outlined that Douglas Partners has conducted contamination investigations within the rail corridor between Newcastle Station in the east and Worth Place in the west.

The results of the investigation indicated the following with respect to contamination at the site:

- The presence of hydrocarbon contamination in soil associated with the former gas works in the eastern portion of the site (ie. current bus interchange).
- The presence of hydrocarbon contamination in near-surface soils in the vicinity of Newcastle Station and the Newcastle Signal Box as a results of historical train use.

- The presence of heavy metal-impacted near-surface soils to the west of Civic Station, likely to be as a result of impacted historical filling and/or historical ash dumping in the area.
- The presence of minor soil contamination in filling across the site, likely due to historical use as a railway and historical filling of the site. The Assessment recommends that contamination in soil at the site should be addressed due to the potential for impacts on human health and the environment, including groundwater impact. The Assessment proposes a remediation strategy for the site for localised removal and/or remediation of impacted soils, with capping of the remainder of the site with structures, pavements or soils. The contamination assessment and Remediation Action Plan (RAP) will be subject to review and approval by a NSW EPA accredited auditor.

CN's Compliance Services Unit has reviewed the Assessment and are satisfied that the land can be made suitable after remediation for all the purposes for which the land is to be used. Further details and agreement of contaminants remaining in-situ will be established for land intended to be dedicated to CN.

In terms of geotechnical suitability of the site for future development the Assessment identifies that the rail corridor land is considered to be geotechnically suitable for residential, community and commercial type developments. The Assessment adds that prior to the detailed design of any proposed developments specific geotechnical investigation will be required, appropriate to the nature of the proposed development. Investigation and design will need to consider some or all of the following matters:

- The presence and depth of uncontrolled fill.
- The presence, depth and likely variation in groundwater levels.
- Appropriate treatment and management of acid sulphate soils where encountered.
- Excavation conditions and shoring requirements, if relevant.
- Earthworks procedures and whether any ground improvement measures (such as removal and compaction) are required, taking into account the requirements of the Remediation Action Plan (RAP).
- Suitable footing options and design parameters for support of structures.
- Requirements relating to potential mine subsidence, where relevant.

The Assessment identified that it could be expected that with suitable investigation, design and construction in accordance with accepted engineering practice, that the above matters can be readily managed.

Having regards to the above, the land is acceptable from a contamination and geotechnical perspective for the intended land uses proposed.

### **Mine Subsidence**

The site is within the Newcastle Mine Subsidence District. The submitted geotechnical and contamination assessment by Douglas Partners (Appendix C), includes a letter from Mine Subsidence Board (MSB), dated 14 January 2016, outlining preliminary consultation with the MSB. The letter confirms that future development would require approval from the NSW MSB and that larger scale development would be subject to merit assessment based upon engineered solutions having regards to further detailed investigations.

### **Flooding**

The land is subject to flooding, any future development of the land will need to comply with the requirements in the Newcastle DCP in relation to flooding. A Flood Risk Assessment by BMT WBM (Appendix D) noted the area could accommodate future development.

### **Bushfire**

According to Newcastle Bush Fire Hazard Map the land is not affected by bushfire risk or in the vicinity of such a risk.

### **Acid Sulphate Soils (ASS)**

The land is identified as Class 3 ASS under the Newcastle LEP 2012. Future development must comply with the provisions of the Newcastle LEP 2012 relating to ASS.

### **Zoning and Planning Controls**

Prior to the Department of Planning and Environment removing Parcel 12 from the rail corridor Planning Proposal, Council endorsed as part of the Planning Proposal to rezone the site part SP3 Tourist (with a HOB of 17 metres and FSR of 2.5:1) and Part RE1 Public Recreation. The proposed zoning and planning controls were chosen to ensure residential flat buildings were not constructed on this site and to establish a more suitable interface between any future development and Market Street Lawn, as the future owner/developer of the site was not yet known.

As the future ownership has been resolved and use of the land for a multi purpose community space is now being investigated, a detailed assessment of the consolidated site has been undertaken, taking into consideration existing view corridors, impact on surrounding development and the interface with Market Street Lawn and the waterfront.

A Visual Impact Statement was completed by Moir Landscape Architects as part of the previous rail corridor rezoning which modelled a 17-metre building height for Parcel 12. The assessment noted the importance of protecting view corridors along Brown and Perkins Street as well as fragmented view to the harbor from Hunter Street. The visual impact (at a height of 17 metres) would be greatest felt from buildings fronting Hunter and Scott Street as well as properties from higher elevations to the south (i.e Church Street) as the proposed development may be visible.

Now that the site has been consolidated with 233 Wharf Road Newcastle and includes all of Parcel 12; the initial proposed 17 metre height limit height limit has been lowered to 14 metres and FSR to 2:1 to better complement surrounding development and protect view corridors from Hunter Street and from higher elevations to the south.

The following images show the existing height of building and proposed height of building for the entire parcel of land. The images do not take into consideration NDCP controls and site specific controls such as setbacks, building separation and public access to the waterfront.





Figure 14 – Existing development showing maximum building height



Figure 15 – Proposed maximum Height of Building (Looking East)



Figure 15 – Proposed maximum Height of Building (looking west)

### Development Control Plan

A review of Newcastle DCP 2012, Section 6.01 Newcastle City Centre is being undertaken to consider appropriate site specific controls such as protecting view lines, setbacks and connections to the waterfront and will be reported separately to Council for consideration. It is intended that the Planning Proposal and amended DCP will be exhibited together to ensure the community has an opportunity to comment on both documents.

### 9. *Has the planning proposal adequately addressed any social and economic effects?*

The creation of a multi purpose community space that will be accessible by public transport and provide for the future Newcastle community will have a positive effect on the Newcastle City Centre.

## Section D - State and Commonwealth interests

### 10. *Is there adequate public infrastructure for the planning proposal?*

A Servicing Investigation, by ADW Johnson determined there are no issues that would preclude the proposed rezoning on the basis of water and wastewater infrastructure servicing, electricity and communications.

### 11. *What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?*

State or Commonwealth public authorities have not been formally consulted with during preparation of this Planning Proposal. CN will consult with State and Government public authorities, if it is a requirement of the Gateway Determination.

## Part 4 - Mapping

The planning proposal seeks to amend the following map within Newcastle LEP 2012:

- ✓ Land Zoning Map
- ✓ Height of Buildings Map
- ✓ Floor Space Ratio Map
- ✓ Minimum Lot Size Map
- ✓ Key Sites Map

The Matrix below indicates which map sheets (of Newcastle LEP 2012) are to be amended as a result of this planning proposal.

	FSR	LAP	LZN	WRA	ASS	HOB	LSZ	LRA	CL1	HER	URA
001											
001A											
001B											
001C											
001D											
002											
002A											
002B											
002C											
002D											
002E											
002F											
002G											
002H											
003											
004											
004A											
004B											
004C											
004D											
004E											
004F											
004FA											
004G	✓		✓			✓	✓		✓		
004H											
004I											
004J											
004K											

Map Codes:	FSR	=	Floor Space Ratio map
	LAP	=	Land Application Map
	LZN	=	Land Zoning Map
	WRA	=	Wickham Redevelopment Area Map
	ASS	=	Acid Sulfate Soils Map
	HOB	=	Height of Buildings Map
	LSZ	=	Lot Size Map
	LRA	=	Land Reservation Acquisition Map
	CL1	=	Key Sites Map & Newcastle City Centre Map
	HER	=	Heritage Map
	URA	=	Urban Release Area Map

## Part 5 - Community consultation

The planning proposal is considered as high impact in accordance with the Department of Planning and Environment's guidelines, 'A guide to preparing local environmental plans'. It is proposed that the planning proposal will be publicly exhibited for a minimum 28 days.

## Part 6 - Project timeline

The plan making process is anticipated to take 10 months as shown in the timeline below. It will be undertaken in accordance with the Gateway determination.

Task	Planning Proposal Timeline											
	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Anticipated commencement date (date of Gateway determination)												
Anticipated timeframe for the completion of required studies												
Timeframe for government agency consultation												
Commencement and completion dates for public exhibition period												
Dates for public hearing (if required)												
Timeframe for consideration of submissions												
Timeframe for the consideration of a proposal post exhibition												
Anticipated date RPA* will make the plan (if delegated)												
Anticipated date RPA* will forward to the Department for notification (if delegated) or for finalisation (if not delegated)												

\*RPA Relevant Planning Authority

**Appendix A**

Heritage Assessment Report



# Newcastle Urban Transformation and Transport Program – Rezoning of Surplus Corridor Lands

## Heritage Assessment Report

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Document Status

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## Executive Summary

RPS has been contracted by Elton Consulting on behalf of Urban Growth NSW (UGNSW) to provide an assessment of Aboriginal and historic cultural heritage to support the proposed rezoning of surplus rail corridor lands in central Newcastle for urban purposes. The proposal involves a zoning change from its current zoning SP2 Special Purpose Infrastructure to B4 Mixed Use, SP3 Tourist and RE1 Public Recreation zones. The rezoning would be achieved through an amendment to Newcastle Local Environmental Plan 2012 (NLEP).

A search undertaken of the Aboriginal Heritage Information Management System (AHIMS) identified that no Aboriginal sites are present in the Rezoning Study Area. However, the literature review and previous archaeological work suggests that subsurface Aboriginal heritage may be present in the Rezoning Study Area.

The Rezoning Study Area is in the Newcastle City Centre Heritage Conservation Area. In reference to built heritage there are six heritage places in or abutting the area: the Newcastle Railway Station and the Newcastle Railway Station Additional Group (both on the State Heritage Register); the Civic Railway Workshop; Civic Station; the Remains of AA Co. Bridge and Fence and the former Tramway Substation (on the NLEP 2012 Schedule 5 and of local heritage significance). There are a number of identified archaeological and potential resources in the Rezoning Study Area including archaeological resources associated with Mortuary Station, Civic Railway Station, Civic Railway Workshops curtilage and railway turntable, Newcastle Railway Station and the penal settlement as defined in the Newcastle Archaeological Management Plan (Higginbotham 2013).

The program objective of the proposed rezoning is ‘to preserve and enhance culture and heritage’ with the aim of respecting, maintaining and enhancing the unique heritage and character of the Newcastle city centre (Newcastle Urban Transformation and Transport Program January 2016). This objective should ensure the retention, maintenance and refurbishment of heritage buildings and preserve the heritage significance of the Newcastle City Centre Heritage Conservation Area. The detailed management plan to support this objective will occur during the planning phase of the Development Application.

Though the proposed rezoning will not physically affect built heritage, development that will follow the rezoning will. It is considered however that the impact will be, in most instances, positive with adaptive re-use of heritage items and in a number of instances improved view corridors. Detailed assessments of archaeological potential will be required prior to development to determine the potential for archaeological resources in specific areas and the potential of a proposed development to affect an identified or potential archaeological resource. The approvals required would be dependent on the significance of the archaeological resource and the potential for the proposed development to affect that significance.

This report provides advice on the planning approval process required and provides recommendations for mitigation against an adverse heritage impact.

The heritage aspects within the rezoning Study Area should not impact the proposed rezoning progressing.

Abbreviation/ Term	Meaning
Aboriginal Object	“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains” (DECCW 2010:18).
Aboriginal Place	“a place declared under s.84 of the NPW Act that, in the opinion of the Minister, is or was of special significance to Aboriginal culture” (DECCW 2010:18). Aboriginal places have been gazetted by the minister.
Activity	A Study, development, or work (this term is used in its ordinary meaning and is not restricted to an activity as defined by Part 5 EP&A Act 1979).
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
DECCW	Department of Environment, Climate Change and Water (is now the Office of Environment and Heritage – OEH)
Disturbed Land	“Land is disturbed if it has been the subject of a human activity that has changed the land’s surface, being changes that remain clear and observable.” (DECCW 2010:18).
Due Diligence	“taking reasonable and practical steps to determine whether a person’s actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm” (DECCW 2010:18)
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
GDA	Geodetic Datum Australia
Harm	“destroy, deface, damage an object, move an object from the land on which it is situated, cause or permit an object to be harmed.” (DECCW 2010:18)
ICOMOS	International Council for Monuments and Sites
IHO	Interim Heritage Order
LEP	Local Environmental Plan
LGA	Local Government Area
NCCHCA	Newcastle City Centre Heritage Conservation Area
NLEP	Newcastle Local Environment Plan
NPWS	National Parks and Wildlife Service
NPW Act	National Parks and Wildlife Act 1974 (NSW)
NPW Regulation	National Parks and Wildlife Regulation 2009 (NSW)
NURS	Newcastle Urban Renewal Strategy
OEH	Office of Environment and Heritage (formerly DECCW)
PAD	Potential Archaeological Deposit
Program	Newcastle Urban Transformation and Transport Program
Project Area	Project Area is the area subject to the desktop study in this report
Proposal site	Proposal site is the area subject to the desktop study in this report
REF	Review of Environmental Factors
s170 register	Section 170 of the <i>Heritage Act 1977</i> requires each State Government agency to keep records of heritage items owned or operated by it and this is commonly referred to as a s170 register
SHI	State Heritage Inventory – inventory of heritage items of local or state significance
SHR	State Heritage Register – register of heritage items of state significance
SoHI	Statement of Heritage Impact
Study Area	Study Area is the area subject to the desktop study in this report
TfNSW	Transport for NSW

## 1.0 Introduction

### 1.1 Background

RPS has been contracted by Elton Consulting on behalf of UrbanGrowth NSW to provide an assessment of Aboriginal and historic cultural heritage to support the proposed rezoning of surplus rail corridor lands in central Newcastle for urban purposes through an amendment to Newcastle Local Environmental Plan 2012 (NLEP).

### 1.2 The proposal

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1).

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500m commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

The transformation element of the Program aims to bring people back to the city centre by strengthening connections between the city and the waterfront, creating employment opportunities, providing more public space and amenity, and delivering better transport.

The proposed rezoning of the rail corridor land forms a part of the delivery of urban transformation initiatives, comprising a package of transport, built form and public domain improvements.

#### 1.2.1 Vision

The Program vision has been informed by feedback from the community, Council, government agencies and urban renewal experts.

*Our vision is an activated city centre and waterfront that attracts people, new enterprises and tourism. Over time, we see great opportunities to build on the strengths of the city centre to encourage innovative and enterprising industries to thrive. In the longer term, we see an opportunity to strengthen Newcastle's position on the regional, national and international stage, with a view to stronger ties with the Asia Pacific.*

*UrbanGrowth NSW, 2015*

#### 1.2.2 Newcastle Urban Transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment
- Civic: the government, business and cultural hub of the city

- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek)

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and the City of Newcastle Council (Council).

### 1.2.3 Proposed rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

The Program is underpinned by six objectives which will drive successful urban revitalisation:

**1. Bring people back to the city centre**

Re-imagine the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain that will attract people.

**2. Connect the city to its waterfront**

Unite the city centre and the harbour to improve the experience of being in and moving around the city.

**3. Help grow new jobs in the city centre**

Invest in initiatives that create jobs, with a focus on innovative industries, higher education and initiatives to encourage a range of businesses to the city centre.

**4. Create great places linked to new transport**

Integrate urban transformation with new, efficient transport to activate Hunter and Scott Streets and return them to thriving main streets.

**5. Creating economically sustainable public domain and community assets**

Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future.

**6. Preserve and enhance heritage and culture**

Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities.

### 1.2.4 Urban transformation proposed concept plan

Surplus rail corridor land runs through the East End and Civic city centre precincts as established by NURS.

Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan (the concept plan) has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas.

The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 4) includes five 'key moves', two that relate to the Civic precinct and three of which relate to the East End.

**1. Civic link (Civic)**

This area is the civic heart of Newcastle and includes some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre and Newcastle Museum. Current investment in the area includes the law courts development and the, soon to be completed, University of Newcastle NeW Space campus.

The focus of this key move is to leverage best value from new investments by creating new open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

- **Civic Green.** Creating a new civic focused public space linking Hunter Street to the Newcastle Museum that will provide direct visual and physical connection from Wheeler Place to the harbour, activate light rail on Hunter Street and meet the needs of the incoming legal and student populations
- **Built form improvements.** Sensibly scaled mixed use development that forms part of the Honeysuckle development.

## 2. Darby Plaza (Civic)

Darby Street is Newcastle's premier 'eat street', offering a mix of shops, cafes, restaurants and night life. At present Darby Street ends at the intersection with Hunter Street, and this key move seeks to create a new node of activity and linkage through to the harbour that complements the delivery of light rail.

- **Darby Plaza** A new community focused public space including provision of new walking and cycling facilities from Hunter Street to the harbour.
- **Built form improvements.** Zoning of rail corridor land between Merewether Street and Argyle Street to allow for future mixed use development in conjunction with surrounding lands in the longer term.

## 3. Hunter Street Revitalisation (East End)

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local business. Hunter Street has experienced decline in recent years, and the opportunity exists to reinstate Hunter Street as the regions premier main street that complements the delivery of light rail.

- **Built form improvements.** Sensibly scaled mixed use development consistent with the adjoining land uses to create an activated street with 'two edges', celebrate heritage and create new linkages from Hunter Street to the waterfront, provide activation around light rail stops and improve walking and cycling facilities.

## 4. Entertainment Precinct (East End)

This key move aims to create a place where people can come to play, relax and reconnect with the harbour in a new public space stretching from Scott Street to the waterfront incorporating a new connection from Market Street to Queens Wharf. This key move will also assist to activate the area to create an exciting place for the East End.

- **Recreational opportunities.** This precinct will incorporate the adaptive re-use of the signal box and provision of recreation opportunities for all ages and abilities. Public domain will be designed to provide a thoughtful series of character areas and experiences as one traverses its length. The area will also provide opportunities for viewing and interpretation of heritage character that respect the unique qualities of place.

## 5. Newcastle Station (East End)

Newcastle Railway Station is proposed to be re-purposed into a hallmark destination and focal point for the new East End, accommodating enterprises and activities that attract visitors and stimulate the economy.

Refurbishment would fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, retail, leisure and commercial uses.

### **1.2.5 Rezoning concept plan**

The proposed rezoning of the surplus rail corridor lands is the focus of this report. The rezoning area is indicated in Figure 1.

Amendments to the NLEP are required to deliver part of the concept plan. The proposed amendments are on surplus rail corridor land only.

Necessary amendments to the NLEP 2012 include:

- amending the Land Use Zoning Map to introduce B4 Mixed Use, SP3 Tourism and RE1 Public Recreation zones to sites along the corridor
- amending the Height of Building and Floor Space Ratio maps to apply appropriate development standards to selected parcels of land

The approach taken to the amendments is to support the NURS planning approach and to remain consistent with surrounding planning controls in terms of zones, floor space ratio (FSR) and height.

The concept plan will also form the basis for updates to the Newcastle City Centre Development Control Plan design controls to guide development and public domain works for rezoning sites.

### **1.2.6 Proposed rezoning**

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan. The location of the land affected by the proposed rezoning is identified in Figure 1.

The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general, the proposed rezoning will provide a mix of uses enabling between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000m<sup>2</sup> of commercial, restaurant and other entertainment uses, as described in Table 1, and excluding any education or associated uses.

Proposed maximum building height and floor space ratio controls respect existing controls that apply to surrounding land.



Table 1 Proposed rezoning

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m <sup>2</sup>	Parcel 01	3,370m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 02 B4 Mixed Use 408m <sup>2</sup>	Parcel 02	408m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 03 B4 Mixed Use 3,146m <sup>2</sup>	Parcel 03	1,869m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
	Parcel 04	900m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 24m
Parcel 04 RE1 Public Recreation 2,464m <sup>2</sup>	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603m <sup>2</sup>	Now parcel 06	1,604m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height – 18m
Parcel 06 B4 Mixed Use 295m <sup>2</sup>	Now parcel 07	295m <sup>2</sup>	B4 Mixed Use	FSR – 2.5:1	Height – 30m
Parcel 07 B4 Mixed Use 2,040m <sup>2</sup>	Now parcel 08	2,040m <sup>2</sup>	B4 Mixed Use (Road)	FSR – 2.5:1	Height – 30m
Parcel 08 B4 Mixed Use 988m <sup>2</sup>	Now parcel 09	988m <sup>2</sup>	B4 Mixed Use	FSR – 4:1	Height – 24m
Parcel 09 B4 Mixed Use 467m <sup>2</sup>	Now parcel 10	467m <sup>2</sup>	RE7 Public Recreation	N/A	N/A
Parcel 10 SP2 Infrastructure 386m <sup>2</sup>	Now parcel 11	386m <sup>2</sup>	SP2 Infrastructure	N/A	N/A
Parcel 11 B4 Mixed Use 4,542m <sup>2</sup>	Now parcel 12	4,542m <sup>2</sup>	B4 Mixed Use	FSR – 1.5:1	Height – 14m
Parcel 12 B4 Mixed Use 1,544m <sup>2</sup>	Now parcel 13 (and has been reduced in size)	659m <sup>2</sup>	SP2 Infrastructure	N/A	N/A

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 13 RE1 Public Recreation 303m <sup>2</sup>	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251m <sup>2</sup>					
Parcel 15 RE1 Public Recreation 7,713m <sup>2</sup>					
Parcel 16 SP3 Tourist 10,698m <sup>2</sup>	Now parcel 15	10,698m <sup>2</sup>	SP3 Tourist	FSR – 1.5:1	Height – 10-15m

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

### 1.3 Methodology

This assessment includes:

- An identification of statutory requirements relevant to the project.
- A brief literature review of relevant documents relating to the history of the study area and its heritage values as well as strategic heritage policies.
- A heritage register search (Aboriginal and historic cultural heritage).
- Heritage advice for the Rezoning.

An extensive literature review has been carried out to inform this assessment including the following area-based and site-specific heritage-related studies and strategic heritage policy documents:

- *Newcastle Archaeological Management Strategy*. Newcastle City Council (August 2015)
- *The City of Newcastle Heritage Strategy 2013-2017* (March 2014)
- *The City of Newcastle Heritage Policy* (June 2013)
- *Newcastle Archaeological Management Plan Review*, Edward Higginbotham et al (April 2013) for the City of Newcastle
- *Newcastle Railway Station Heritage Fabric Review & Conservation Works* (2014), EJE Heritage
- *Newcastle Urban Renewal Adaptive Reuse Case Studies of Heritage Buildings*
- *Wickham Transport Interchange Heritage Impact Statement*, Urbis (July 2014)

In the provision of heritage advice, this report will follow best practice standards and guidance where appropriate including *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*.

#### 1.4 Authorship

This report has been prepared by Laraine Nelson and Joanne McAuley, RPS Senior Cultural Heritage Consultants and has been reviewed by Tessa Boer-Mah RPS Newcastle Cultural Heritage Manager.

#### 1.5 Land use

The Rezoning Study Area has previously been used as a rail corridor, road pavement, footpath and contains rail related structures and infrastructure. The rail corridor has associated disturbance in the form of rail ballast, tracks and associated infrastructure and results from the geotechnical assessment show that the subterranean disturbance ranges from 0.7m to over 1.8m in depth (RCA Australia 2015:7). Outside the rail corridor geotechnical testing has shown that road pavements have typical disturbance of 0.4m beneath the ground surface (RCA Australia 2015:7). The amount of ground surface disturbance beneath buildings is likely variable (this has not been subject to geotechnical testing). The geotechnical testing has identified the extent of fill and characteristics of the subsurface soils. The results of the geotechnical testing show that while there are high levels of disturbance in the upper layers, natural sand layers may be present from 0.7m. Depending on the historic sand dune movement, archaeological material may be present in the natural sand layers. Fill layers also have potential to contain Aboriginal and historic archaeological material.



Figure 1 Rezoning Study Area

## 2.0 Statutory context

The following sections provide information on Federal and State legislation which provides for the protection and management of Aboriginal and historic cultural heritage.

The following overview of the legal framework is provided solely for information purposes for the client, it should not be interpreted as legal advice. RPS will not be liable for any actions taken by any person, body or group as a result of this general overview, and recommends that specific legal advice be obtained from a qualified legal practitioner prior to any action being taken as a result of the summary below.

### 2.1 Aboriginal cultural heritage

Although there are a number Acts and regulations protecting and managing cultural heritage in New South Wales the primary ones include:

- *National Parks and Wildlife Act 1974* (as amended)
- *National Parks and Wildlife Regulation 2009*
- *Environmental Planning and Assessment Act 1979*

In brief, the *National Parks and Wildlife Act 1974* (as amended) protects Aboriginal heritage (places, sites and objects) within NSW; the *National Parks and Wildlife Regulation 2009* provides a framework for undertaking activities and exercising due diligence.

#### 2.1.1 National Parks & Wildlife Act 1974 (as amended)

The *National Parks and Wildlife Act 1974* (as amended) (NPW Act) protects Aboriginal heritage (places, sites and objects) within NSW. Protection of Aboriginal heritage is outlined in s86 of the NPW Act, as follows:

- “A person must not harm or desecrate an object that the person knows is an Aboriginal object” s86(1),
- “A person must not harm an Aboriginal object” s86(2)
- “A person must not harm or desecrate an Aboriginal place” s86(4).

Penalties apply for harming an Aboriginal object or place. The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to \$550,000 for an individual and/or imprisonment for 2 years; and in the case of a corporation the penalty is up to \$1.1 million. The penalty for a strict liability offence (s86[2]) is up to \$110,000 for an individual and \$220,000 for a corporation.

**Harm** under the NPW Act is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, it is a defence from prosecution if the proponent can demonstrate 1) that harm was authorised under an Aboriginal Heritage Impact Permit (AHIP) (and the permit was properly followed), or 2) that the proponent exercised due diligence in respect to Aboriginal heritage. The ‘**due diligence’ defence (s87(2))**, states that if a person or company has exercised due diligence to ascertain that no Aboriginal object was likely to be harmed as a result of the activities proposed for the Project Area; then liability from prosecution under the NPW Act will be removed or mitigated if it later transpires that an Aboriginal object was harmed. If any Aboriginal objects are identified during the activity, then works should cease in that area and Office of Environment and Heritage (OEH) notified (DECCW 2010c:13). The due diligence defence does not authorise continuing harm.

## Notification of Aboriginal Objects

Under section 89A of the NPW Act Aboriginal objects (and sites) must be reported to the Director-General of OEH within a reasonable time (unless it has previously been recorded and submitted to AHIMS). Penalties of \$11,000 for an individual and \$22,000 for a corporation may apply for each object not reported.

### **2.1.2 National Parks and Wildlife Regulation 2009**

The *National Parks and Wildlife Regulation 2009* (NPW Regulation) provides a framework for undertaking activities and exercising due diligence in respect to Aboriginal heritage. The NPW Regulation outlines the recognised due diligence codes of practice which are relevant to this report, but it also outlines procedures for Aboriginal Heritage Impact Permit (AHIP) applications and Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) (DECCW 2010a); amongst other regulatory processes.

### **2.1.3 Aboriginal Community Consultation**

OEH acknowledges that Aboriginal people are the primary determinants of the significance of their heritage and that Aboriginal people should be involved in the Aboriginal cultural heritage planning process. Aboriginal people are the primary source of information regarding the value of their heritage and how this is best protected and conserved, and must be afforded control in the way cultural information (particularly sensitive information) is used. Aboriginal consultation is regarded as an integral part of the process of investigating and assessing Aboriginal cultural heritage (OEH 2011:2).

Aboriginal consultation is mandatory for the preparation of an Aboriginal Heritage Impact Permit application (clause 80C of the NP&W Regulation), for undertaking a test excavation (DECCW 2010b) and is usually required as part of the DGRs issued by the Department of Planning and Infrastructure. In cases when Aboriginal consultation is mandatory, the consultation process is stipulated in clause 80C of the NPW Regulation and is further specified in the Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) (DECCW 2010a). As a general principal, OEH encourages consultation with Aboriginal people whenever there is uncertainty that a proposed activity could potentially harm Aboriginal objects or places.

### **2.1.4 Aboriginal Heritage Impact Permit**

Under the NPW Act, a person can apply for an AHIP as a defence to a prosecution for harming Aboriginal objects or Aboriginal places. An Aboriginal Cultural Heritage Assessment Report (ACHAR) is needed to support an AHIP application. The AHIP will be a defence provided that:

- the harm was authorised by the AHIP, and
- the conditions of that AHIP were not contravened.

An AHIP is required where a proposed activity would – directly or indirectly – harm an Aboriginal object or a declared Aboriginal place.

### **2.1.5 Aboriginal Heritage Information Management System**

A search was undertaken of the Aboriginal Heritage Information Management System (AHIMS) for GDA Zone 56, Eastings 382900 to 386600 and Northings 6355700 to 6357200 (Appendix 1).

The AHIMS results show there are 17 Aboriginal sites in the Newcastle area (Table 2, Figure 2), but none of these are in the Rezoning Study Area. However, it should be acknowledged that the AHIMS results are influenced by ground surface visibility and that the subsurface archaeological investigations have been emplaced according to development proposals and, as such, have not systematically tested landforms or archaeological areas in Newcastle.

Thus the AHIMS results need to be interpreted in conjunction with results of the archaeological context review in Table 2.

The view shows that some archaeological excavations have identified intact subsurface Aboriginal material underneath previously disturbed areas, which demonstrates that previous land use has not, necessarily, removed Aboriginal objects. The distribution of subsurface Aboriginal material is not spatially uniform and that some areas have contained only disturbed archaeological contexts and other area contained relatively intact deposit. On this basis, there is a high likelihood that subsurface Aboriginal material is present in the Rezoning Study Area, but its distribution would need to be further investigated.

**Table 2 Summary of AHIMS site types within the searched coordinates, none are in the Rezoning Project Area**

Site type	Count	Percent
PAD	7	41.18%
PAD + Midden	2	11.76%
Surface Artefact(s)	8	47.06%
<b>Total</b>	<b>17</b>	<b>100.00%</b>

Source: AHIMS search generated 4 November 2015.





## 2.2 Non-Aboriginal cultural heritage

### 2.2.1 Heritage Act 1977 and the NSW Heritage Division

Historical archaeological relics, buildings, structures, archaeological deposits and features with State heritage significance are protected under the *Heritage Act 1977* (and subsequent amendments) and may be identified on the State Heritage Register (SHR) or by an active Interim Heritage Order.

The Heritage Council of NSW, constituted under the *Heritage Act 1977*, is appointed by the Minister and supported by the Heritage Division of the Office of Environment and Heritage (OEH). The Council is responsible for heritage in NSW and reflects a cross-section of community, government and conservation expertise. The work of the Heritage Division includes:

- working with communities to help them identify their important places and objects
- providing guidance on how to look after heritage items
- supporting community heritage projects through funding and advice
- maintaining the NSW Heritage Inventory, an online list of all statutory heritage items in NSW.

The 1996 *NSW Heritage Manual*, published by the NSW Heritage Division and the then Department of Urban Affairs and Planning, provides guidelines for conducting assessments of heritage significance. The Manual includes specific criteria for addressing the significance of an item and this assessment has been completed in accordance with those guidelines.

#### 2.2.1.1 State Heritage Register

The State Heritage Register (SHR) was searched for the Rezoning Study Area. Table 3 outlines the state heritage places and their location in relation to the proposed rezoning areas.

There are a number of state heritage places within the townscape surrounding the sites proposed for rezoning. Heritage items in the vicinity of the Rezoning Study Area, that is, across the road or have direct line of sight have been listed in Table 4.

**Table 3 Items of State Significance on the State Heritage Register (SHR) intersecting the Rezoning Study Area**

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Civic Railway Workshops	Great Northern Railway, Newcastle	SHR No. 00956	State	Within Parcel 5, Parcel 18 and Parcel 19.
Newcastle Railway Station	Great Northern Railway, Newcastle	SHR No. 00236	State	Within Parcel 15.
Newcastle Railway Station Additional Group	Great Northern Railway, Newcastle	SHR No. 01212	State	Within Parcel 14 and 15.

**Table 4 Items of State Significance on the State Heritage Register (SHR) in close proximity to the Rezoning Study Area**

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Former Frederick Ash Building	359-361 Hunter Street, Newcastle	SHR No. 00642	State	Approximately 45 metres south of proposed Parcel 06 and Parcel 07.
Newcastle City Hall and Civic Theatre	289 King Street, Newcastle	SHR No. 01883	State	Approximately 45 metres south of proposed Parcel 04 and Parcel 05.

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Great Northern Hotel	89 Scott Street, Newcastle	SHR No. 00507	State	Approximately 30m southeast of Parcel 15.
Customs House	1 Bond Street, Newcastle	SHR No. 01403	State	Approximately 20 metres east of Parcel 15.

### 2.2.1.2 Section 170 Heritage and Conservation Register

The following Table 5 identifies heritage places included on the Section 170 Heritage and Conservation Register located within the Rezoning Study Area and an item adjacent to the Rezoning Study Area is listed in Table 6.

**Table 5 Items on s170 Heritage Registers in the Rezoning Study Area**

Item	Address	State Government Agency	Significance	Relationship to the Proposed Rezoning
Civic Railway Station Group	Hunter Street, Civic	RailCorp	Local	Within Parcel 01, 02, 03 and 04.
Newcastle Railway Station Group	110 Scott Street, Newcastle	RailCorp	State	Within Parcel 14 and 15.

**Table 6 Items on s170 Heritage Registers in close proximity to the Rezoning Study Area**

Item	Address	State Government Agency	Significance	Relationship to the Proposed Rezoning
Newcastle Port Corporation	Cnr Newcomen and Scott Streets, Newcastle	Newcastle Port Corporation	Local	Approximately 30 metres south of Parcel 14.

## 2.2.2 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) regulates environmental planning and assessment in NSW. The EP&A Act and its regulations, schedules and associated guidelines require that environmental impacts are considered in land use planning and development assessment. The EP&A Act defines “environment” as “...all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings.” The environment therefore includes cultural heritage.

Heritage items and places are described in local environmental plans (LEPs) and shown on the heritage maps which accompany the LEP. All LEPs contain clauses dealing with heritage conservation. Under this Act all local governments in NSW are required to maintain a register of heritage places as Schedule 5 under their LEP.

## 2.2.3 Newcastle Local Environmental Plan 2012

The NLEP provides protection for local heritage items and conservation areas. Schedule 5 of the NLEP 2012 lists local heritage items, as well as conservation areas within the Newcastle LGA. The aims of the NLEP 2012 are “to respect, protect and complement the natural and cultural heritage, the identity and image, and the sense of place of the City of Newcastle” and “to conserve and manage the natural and built resources of

the City of Newcastle for present and future generations, and to apply the principles of ecologically sustainable development in the City of Newcastle” (S1.2a,b).

### 2.2.3.1 Schedule 5 of the NLEP 2012

The Rezoning also falls in part within the Newcastle City Centre Heritage Conservation Area. The following Table 7 lists items located in or abutting the Rezoning Study Area, Table 8 lists items in the vicinity.

**Table 7 Local Heritage Items in or abutting the Rezoning Study Area**

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Remains of AA Company bridge and fence	280 Hunter Street	I415	Local	Within Parcel 12.
Newcastle Railway Station (note curtilage differs from the SHR item)	110 Scott Street	I455	Local (& State)	Within Parcel 14 and Parcel 15.
Civic Railway Workshops Group	5 Workshop Way, 1 Wright Lane, 6 Workshop Way and 2–4 Merewether Street	I479	Local (& State)	Within Parcel 5, Parcel 18 and Parcel 19.
Former Tramway Sub-station	342 Hunter Street	I416	Local	Abuts eastern boundary of proposed rezoning Parcel 10, 11 and 12

**Table 8 Local Heritage Items in close proximity to the Rezoning Study Area**

Local Heritage Place	Address	Heritage Listing	Significance	Location in relation to Rezoning Study Area
The Civic Theatre	373 Hunter Street	I418	Local (& State)	Approximately 45 metres south of proposed Parcel 04; Parcel 05 and 06
Former Frederick Ash Building	359-361 Hunter Street	I417	Local (& State)	South side of Hunter Street, approximately 45 metres south of proposed Parcel 06 and 07
The Lucky Country Hotel	237 Hunter Street	I414	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 12
Former ANZ Bank	227 Hunter Street	I413	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 12
The Crown and Anchor Hotel	189 Hunter Street	I410	Local	South side of Hunter Street, approximately 40 metres south of proposed rezoning Parcel 14
Former School of Arts	182 Hunter Street	I409	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
Rundles Buildings (former R Hall & Sons buildings)	161 Scott Street	I458	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
Former Beberfaulds Warehouse	175 Scott Street	I459	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
The former Commonwealth Bank	220 Hunter Street	I412	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
The former Johns Building	200–212 Hunter Street	I411	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
The Air Force Club	129 Scott Street	I457	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14 and Parcel 15
The Centennial Hotel	127 Scott Street and 114 Hunter Street	I456	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14 and Parcel 15
Customs House	1 Bond Street	I372	Local (& State)	East side of Watt Street, 20 metres east of proposed rezoning Parcel 15
Great Northern Hotel	89 Scott Street	I451	Local (& State)	South side of Scott Street, 30 metres south east of Parcel 15

#### 2.2.4 The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013

The *Burra Charter* is a set of best practice principles and procedures for heritage conservation. It was developed by Australia ICOMOS (International Council for Monuments and Sites), the Australian group of the international professional organisation for conservation. Although without statutory weight, the *Burra Charter* underpins heritage management in NSW and Australia. The policies and guidelines of the Heritage Council of NSW and the NSW Heritage Office are consistent with and guided by the *Burra Charter*.

## 2.3 Statutory requirements in relation to non-Aboriginal built and archaeological heritage

### 2.3.1 State listed heritage items

Approval must be gained from the NSW Heritage Council when making changes to a place listed on the State Heritage Register or a place covered by an interim heritage order (IHO). That approval is sought through lodgement of a section 57 or a section 60 application prior to commencement of works.

### 2.3.2 Locally listed heritage items

Under the *State Environmental Planning Policy (Infrastructure) 2007* (Part 2, Division 1, 14) the public authority conducting works with impacts on local heritage must not carry out development unless the authority or the person has:

(a) had an assessment of the impact prepared, and

(b) given written notice of the intention to carry out the development, with a copy of the assessment, to the council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located, and

(c) taken into consideration any response to the notice that is received from the council within 21 days after the notice is given.

### 2.3.3 Archaeological sites

Approval from the NSW Heritage Division is required when excavating any land in NSW where there is potential of disturbing an archaeological relic (of historic origin). The application type required depend on whether the site is of local or state significance.

#### 2.3.3.1 Archaeological Sites of Local Significance

The following approvals may apply to archaeological sites of local significance:

- Section 139 Application (Exception 1B) – This exception can be applied for where the excavation or disturbance of land will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them.
- Section 139 Application (Exception 1C) – This exception can be applied for where the site has little likelihood of relics or no archaeological research potential.
- Section 140 Application – this is required to excavate or disturb land that will or is likely to result in the discovery, movement and/or destruction of relics (that are not State Heritage).

If during ground disturbing works, substantial intact archaeological relics of State or local significance are identified, then work must cease in the affected area and the Heritage Council must be notified in writing in accordance with section 146 of the Act. Depending on the nature of the discovery, additional assessment and possibly an excavation permit may be required prior to the recommencement of excavation in the affected area.

#### 2.3.3.2 Archaeological Sites of State Significance

The following approvals may apply to archaeological sites of state significance:

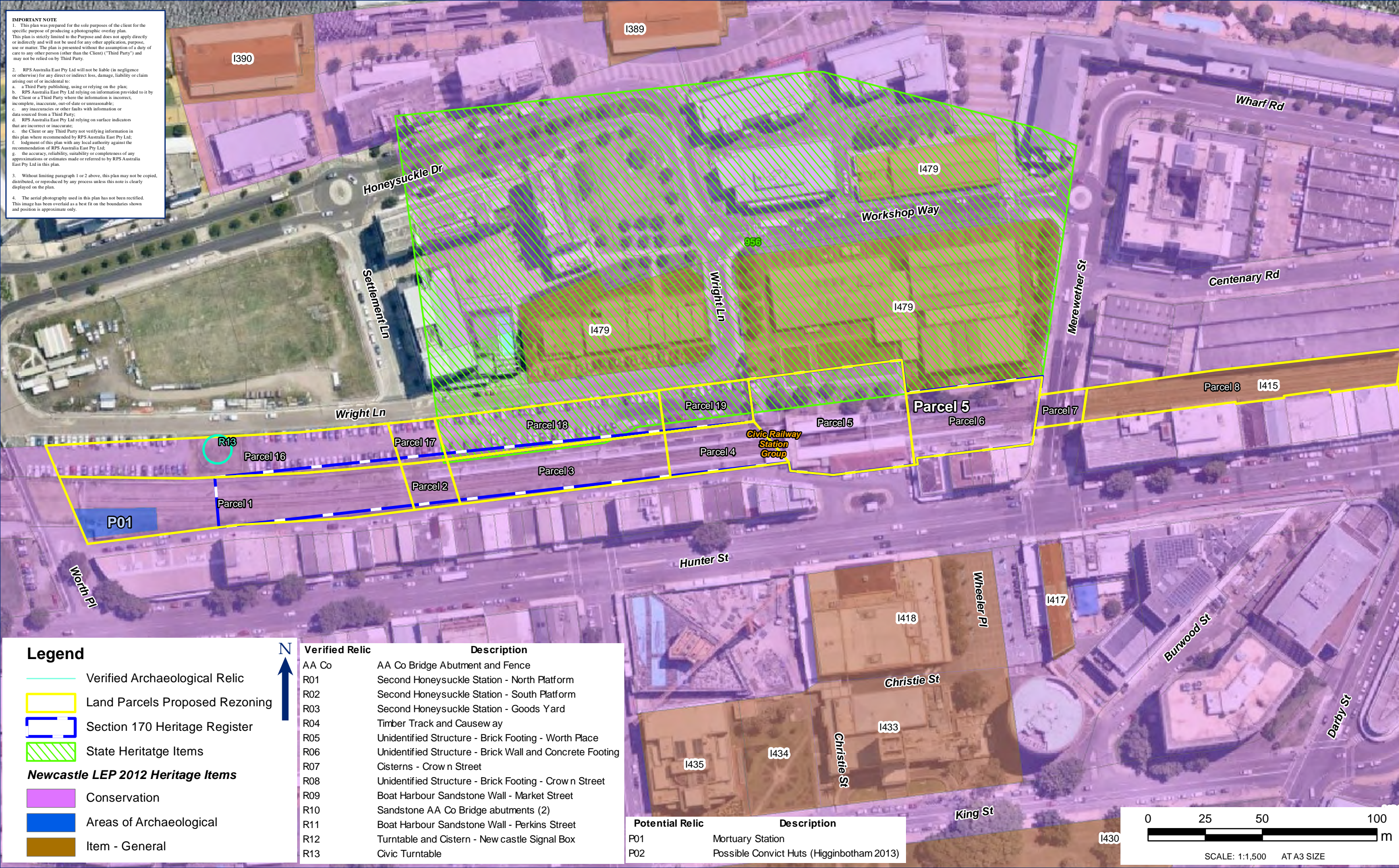
Section 57 Application (Standard Exemption) – There are 17 standard exemption types, the one pertaining to the excavation of archaeological sites is detailed under Standard Exemption 4 and may be applied for if it is demonstrated that:

- (a) an archaeological assessment, zoning plan or management plan has been prepared in accordance with Guidelines published by the Heritage Council of NSW which indicates that any relics in the land are unlikely to have State or local heritage significance; or
- (b) the excavation or disturbance of land will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them; or
- (c) a statement describing the proposed excavation demonstrates that evidence relating to the history or nature of the site, such as its level of disturbance, indicates that the site has little or no archaeological research potential.

Section 60 Application – this is required for items on State heritage listed land where there is a likelihood that identified State heritage significant items/s will be impacted on as a result of the proposal

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**Legend**

- Verified Archaeological Relic
- Land Parcels Proposed Rezoning
- Section 170 Heritage Register
- State Heritage Items

**Newcastle LEP 2012 Heritage Items**

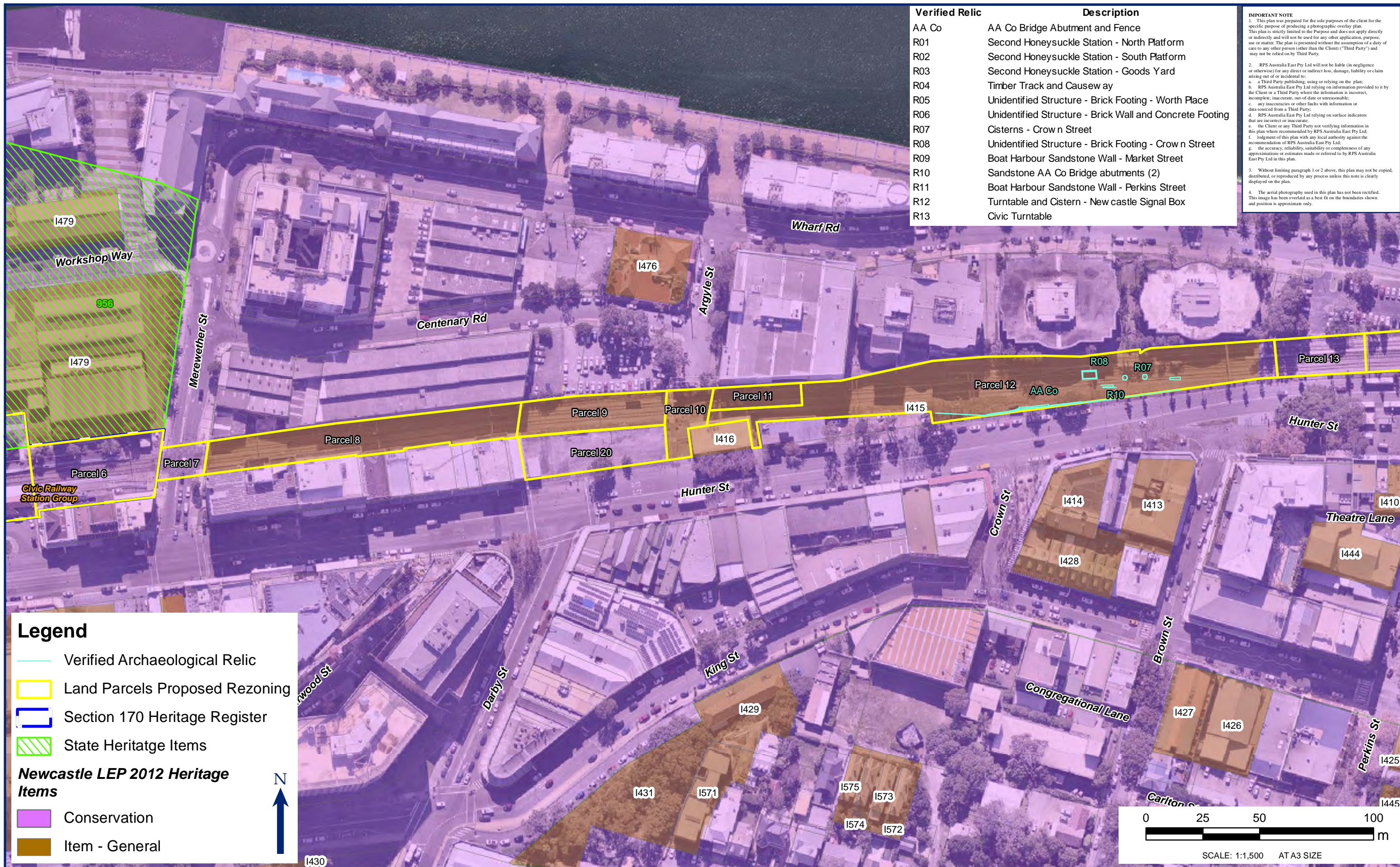
- Conservation
- Areas of Archaeological Interest
- Item - General

Verified Relic	Description
AA Co	AA Co Bridge Abutment and Fence
R01	Second Honeysuckle Station - North Platform
R02	Second Honeysuckle Station - South Platform
R03	Second Honeysuckle Station - Goods Yard
R04	Timber Track and Causeway
R05	Unidentified Structure - Brick Footing - Worth Place
R06	Unidentified Structure - Brick Wall and Concrete Footing
R07	Cisterns - Crown Street
R08	Unidentified Structure - Brick Footing - Crown Street
R09	Boat Harbour Sandstone Wall - Market Street
R10	Sandstone AA Co Bridge abutments (2)
R11	Boat Harbour Sandstone Wall - Perkins Street
R12	Turntable and Cistern - Newcastle Signal Box
R13	Civic Turntable

Potential Relic	Description
P01	Mortuary Station
P02	Possible Convict Huts (Higginbotham 2013)

TITLE : **FIGURE 3: REZONING STUDY AREA WITH HISTORIC HERITAGE ITEMS (WEST)** | LOCATION : **NEWCASTLE** | DATUM:GDA 1994 | DATE : **10/1/2017** | VERSION (PLAN BY): D A3 (james.hugo)

PROJECTION: GDA 1994 MGA Zone 56 | PURPOSE: **HERITAGE** | PATH: J:\JOBS\123K\123632 Heritage Newcastle Rail Corridor\10 - Drafting\Arcgis Map Documents\Report Figures\04 123632 Dec 2016\123632 Figure 2 Rezoning G 20170110.mxd



Verified Relic	Description
AA Co	AA Co Bridge Abutment and Fence
R01	Second Honeysuckle Station - North Platform
R02	Second Honeysuckle Station - South Platform
R03	Second Honeysuckle Station - Goods Yard
R04	Timber Track and Causeway
R05	Unidentified Structure - Brick Footing - Worth Place
R06	Unidentified Structure - Brick Wall and Concrete Footing
R07	Cisterns - Crown Street
R08	Unidentified Structure - Brick Footing - Crown Street
R09	Boat Harbour Sandstone Wall - Market Street
R10	Sandstone AA Co Bridge abutments (2)
R11	Boat Harbour Sandstone Wall - Perkins Street
R12	Turntable and Cistern - Newcastle Signal Box
R13	Civic Turntable

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**Legend**

- Verified Archaeological Relic
- Land Parcels Proposed Rezoning
- Section 170 Heritage Register
- State Heritage Items

**Newcastle LEP 2012 Heritage Items**

- Conservation
- Item - General

N ↑

TITLE : **FIGURE 4: REZONING STUDY AREA WITH HISTORIC HERITAGE ITEMS (CIVIC)** | LOCATION : **NEWCASTLE** | DATUM:GDA 1994 | DATE : **10/1/2017** | VERSION (PLAN BY): D A3 (james.hugo)

PROJECTION: GDA 1994 MGA Zone 56 | PURPOSE: **HERITAGE** | PATH: J:\JOBS\123K\123632 Heritage Newcastle Rail Corridor\10 - Drafting\Arcgis Map Documents\Report Figures\04 123632 Dec 2016\123632 Figure 3 Rezoning CIVIC F 20170110.mxd



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Potential Relic	Description
P01	Mortuary Station
P02	Possible Convict Huts (Higginbotham 2013)

Verified Relic	Description
AA Co	AA Co Bridge Abutment and Fence
R01	Second Honeysuckle Station - North Platform
R02	Second Honeysuckle Station - South Platform
R03	Second Honeysuckle Station - Goods Yard
R04	Timber Track and Causeway
R05	Unidentified Structure - Brick Footing - Worth Place
R06	Unidentified Structure - Brick Wall and Concrete Footing
R07	Cisterns - Crown Street
R08	Unidentified Structure - Brick Footing - Crown Street
R09	Boat Harbour Sandstone Wall - Market Street
R10	Sandstone AA Co Bridge abutments (2)
R11	Boat Harbour Sandstone Wall - Perkins Street
R12	Turntable and Cistern - Newcastle Signal Box
R13	Civic Turntable

**Legend**

- Verified Archaeological Relic
- Section 170 Heritage Register
- Land Parcels Proposed Rezoning
- State Heritage Items

**Newcastle LEP 2012 Heritage Items**

- Conservation Area
- Item - General
- Areas of Archaeological Potential



TITLE : **FIGURE 5: REZONING STUDY AREA WITH HISTORIC HERITAGE ITEMS (EAST)** | LOCATION : **NEWCASTLE** | DATUM:GDA 1994 | DATE : **10/1/2017** | VERSION (PLAN BY): D A3 (james.hugo)

PROJECTION: GDA 1994 MGA Zone 56 | PURPOSE: **HERITAGE** | PATH: J:\JOBS\123K\123632 Heritage Newcastle Rail Corridor\10 - Drafting\Arcgis Map Documents\Report Figures\04 123632 Dec 2016\123632 Figure 4 Rezoning EASTNW G 20170110.mxd

## 3.0 Landscape and Aboriginal archaeological context

### 3.1 Landscape context

The purpose of reviewing the environmental context and archaeological literature is to assist in identifying whether Aboriginal objects or places are present within the Rezoning Study Area.

#### 3.1.1 Geology and soils

This summary of geology and soils aims to provide an overview of the Rezoning Study Area; however, more specific detail and information is provided in the land-use summary. The Newcastle foreshore is underlain by sandstone, siltstone, claystone, coal and tuff associated with the Nobbys Head formation. Broadly, the Newcastle foreshore falls within the Hamilton Soil Landscape, variation A: Developed Terrain. Topsoils in this landscape are typically brownish black specked loamy sand (A<sub>1</sub>) which is 20 to 60 centimetres thick. This is underlain by 15 to 30 centimetres of loose, pale coarse sand (A<sub>2</sub>), followed by brown to orange sandy pan (B horizon) and may further be underlain by clay (Matthei 1995:38-40). Although this is the typical soil formation, variations may occur due to previous Aeolian or alluvial events.

#### 3.1.2 Topography and hydrology

The development of Newcastle as a major port has led to the reclamation of land and reworking of the shape of the Hunter River foreshore. The foreshore and environs, from its junction with Throsby Creek to Nobbys Headland, has undergone major modifications since European settlement; the original shore line was characterised by mud flats and sand spits (Melville 2014 p. 22).

Historic records show an unnamed watercourse between Brown and Crown Streets. Archaeological evidence shows that Aboriginal occupation was highly concentrated around creeks in the locality, for example Cottage Creek. Although it is likely that Aboriginal occupation would have occurred adjacent to the Brown and Crown Street watercourse; this has not been tested archaeologically.

#### 3.1.3 Flora and fauna

This section provides an indication of the types of flora and fauna resources which were likely to have been available to Aboriginal people in the past. It is based on broad scale vegetation mapping for NSW (Keith 2006).

Past Aboriginal people are likely to have encountered Hunter-Macleay Dry Sclerophyll Forests in the vicinity of Rezoning Study Area, as well as coastal vegetation. Dry sclerophyll forests have open canopies with trees up to 30 metres tall; common tree species include spotted gums, iron barks, grey gums, boxes and turpentines (Keith 2006:124-125). The understorey of this vegetation community includes shrubs, herbs, ferns and grasses, thus providing habitat for smaller mammal species. The shrubby understorey includes silver-stemmed wattle and forest oak which present as tall shrubs or small trees; smaller shrubs include coffee bush, gorse bitter pea, peach heath, large mock-olive, narrow-leaved geebung and mutton wood (Keith 2006:124-125).

This vegetation community along with the coastal vegetation would have provided habitat for a variety of animals and would have also provided potential food and raw material sources for Aboriginal people. Coastal resources are likely to have included fish and oysters, while typical animals likely to have been hunted in the vicinity include kangaroos, wallabies, sugar gliders, possums, echidnas, a variety of lizards and snakes, birds, as well as rats and mice. The bones of such animals have been recovered from excavations of Aboriginal sites suggesting that they were sources of food (Attenbrow 2010:70-76), although the hides,

bones and teeth of some of the larger mammals may have been used for Aboriginal clothing, ornamentation, or other implements.

## 3.2 Aboriginal archaeological context

### 3.2.1 Aboriginal occupation of the Hunter Valley

Archaeological evidence suggests that Aboriginal occupation of the Hunter Valley region began at least 35,000 years ago (Koettig 1987). Additional chronological evidence was recovered from the Hunter Valley's north-east mountains for which the following dates were assigned: 34,580±650 (Beta-17009), >20,000 (Beta-20056) and 13,020±360 years before present (BP) (Beta-17271) (Koettig 1987, as cited in (Koettig 1987, as cited in Attenbrow 2006). In the lower Hunter Valley, excavations at Moffats Swamp (Tomago Coastal Plain) have revealed basal dates of 15,376 calibrated BP.

The majority of Aboriginal sites in the region, however, are dated to the more recent Holocene (<11,000 years ago). This may reflect Aboriginal occupation patterns, but may also be influenced by the inaccessibility of potential coastal Pleistocene sites that may have been inundated when sea levels rose and reached present levels approximately 6,000 years ago (Mulvaney and Kamminga 1999 p.223). Other factors such as post depositional processes that may have obscured sites, or a lack of archaeological research in particular areas, could account for the lack of evidence for Pleistocene or early Holocene occupation (AMBS 2005). At Black Hill excavations revealed a stone lined hearth dated to approximately 2,000 BP calibrated.

Throughout the Hunter Valley, archaeological investigations have provided a basis for the development of predictive models of site distribution within this region. Studies completed by Koettig and Hughes (1983a) and (1983b) have demonstrated that open artefact scatters are common throughout the Hunter Valley. Large open sites were generally located in proximity to large creeks that provided a more reliable source of potable water, with smaller open sites distributed through a variety of landforms including large and small creeks, slopes and crests.

Certain typological temporal markers such as backed blades and eloueras are present within the Hunter Valley assemblages. Whilst these provide only a gross indication of time scale, based on the age of the soils and the presence of backed artefacts, the majority of sites in the Hunter Valley are considered to date to the late Holocene period.

Using colonial records, (Brayshaw 1986) conducted extensive research of the landscape and the known Aboriginal communities in the broader Hunter Valley area. Although the ethnographic literature refers to ceremonial grounds and carved trees, these represent only a small portion of the sites which would have occurred in the Hunter Valley. Camp sites would have occurred more commonly, but little is recorded regarding the locations of such sites. The literature does indicate that in the Hunter Valley, as elsewhere, Aboriginal numbers were quickly and greatly reduced by introduced European diseases.

Brayshaw's research into the ethnographic record also showed the distinction between the material culture and goods manufactured inland compared to coastal areas which were dependent on the resources available. The exchange of goods between inland and coastal inhabitants was also evident. Bark was probably the most commonly utilised raw material, associated with the construction of huts, canoes, nets, drinking vessels, baskets, shields, clubs, boomerangs and spears. Being manufactured from an organic material, very few such artefacts survive today. Scarred trees, carved trees, burial sites, ceremonial or bora grounds, cave paintings, rock engravings, axe grinding grooves, quarries and wells have all been recorded in the Hunter region. The distribution of these sites would generally have been reliant on environmental and cultural factors such as resource availability.

### 3.2.2 Aboriginal occupation in the Newcastle area

A summary of the land use context has identified that there has been substantial modification to the original landforms in the Newcastle City area. This has included infilling of the harbour in some areas, and the installation of infrastructure and buildings. The presence of archaeological evidence for Aboriginal occupation in the Newcastle area is influenced by the previous land use, although a number of recent excavations have shown that Aboriginal sites are located below historic structures, or intermixed with historic occupation (City of Newcastle 2015:27). In addition, the detection of Aboriginal archaeological evidence can depend on the sample size of areas archaeologically excavated (i.e. dimensions of trenches) and the location of archaeological excavations. The locations of archaeological investigations have been emplaced according to development proposals and, as such, have not systematically tested landforms or archaeological areas in Newcastle. The AHIMS database of Aboriginal sites is also limited by the same factors and many of the AHIMS sites have been identified as a result of archaeological excavation, the extent of some of the subsurface AHIMS sites are unknown, as often only a sample of them were excavated, as such the AHIMS results will be evaluated following the synthesis of the available archaeological and historical literature for Newcastle.

### 3.2.3 Archaeological and heritage literature review

There are numerous sources of information on the Aboriginal occupation of Newcastle. This section, however, focuses on those studies which are most relevant to understanding the archaeological evidence for the Aboriginal occupation of Newcastle. The studies have been summarised according to the date issued/completed.

#### 3.2.3.1 Convict Limber Yard (Bairstow 1989)

During the excavation of the Convict Lumber Yard at Scott Street (SHR 00570) small quantities of Aboriginal artefacts were identified (Bairstow 1989). These appeared at the eastern end of the excavation and comprised chert, stone, shell and bone that were recorded at a depth of 1.5 metres, the same depth as the convict era deposit (Bairstow 1989:45-53) which is perhaps evidence of mixed deposits in that location. This site was registered as a potential archaeological deposit (PAD), AHIMS 38-4-1020. The excavation results suggest that the Aboriginal material is unlikely to extend beyond the area investigated and there did not appear to be in-situ deposits associated with the site.

#### 3.2.3.2 Accor Ibis Hotel Site 700 Hunter Street Newcastle (AHMS 2001a, 2001b)

This excavation was undertaken approximately 120 metres east of Cottage Creek and included the investigation of AHIMS 38-4-0544, which was registered as a PAD. The excavation of this site revealed an Aboriginal shell midden with 2,939 whole and fragmentary shells, 326 pieces of animal bone and 5,734 lithics, 4,000 of which on preliminary counts were identified to be stone artefacts (AHMS 2001:12). Local shell species, cockle and mud whelk were the dominant shell types contained in the midden material. Tuff was the dominant raw material for stone artefacts, although silcrete, chert and quartz were also present. The preliminary survey had not identified any Aboriginal objects, however the area was considered to be archeologically sensitive due to its proximity to Cottage Creek (AHMS 2001b).

#### 3.2.3.3 Aboriginal Heritage Study (AMBS 2005)

The Aboriginal Heritage Study for Newcastle Local Government Area (LGA) (AMBS 2005). While the study did not involve subsurface archaeological investigation, it provided archaeological sensitivity modelling and a collation of historic information including documentation of local Aboriginal people making extensive use of the resources of the Hunter River and its environs. An important source of historical information on Aboriginal people in the area was from Reverend Lancelot Threlkeld, who lived in the area of Cottage Creek,

Honeysuckle between 1825 and 1826 (Threlkeld in Gunson 1974). Threlkeld records the procuring of fish by line and net, the gathering of shellfish, the opportune use of beached whales and the hunting of kangaroo, bandicoot, lizards and snakes (AMBS 2005:38).

The landscape model of archaeological sensitivity presented in the AMBS report is useful as a general guide, although more recent excavations have contributed additional information which will be discussed later. The area of central Newcastle and the Hunter River delta are described as being highly disturbed and modified, though it was considered that, in areas where landscape modification has been minimal, there is high potential for archaeological evidence to remain (AMBS 2005:80). In a summary of archaeological sensitivity for industrial Newcastle, the southern estuary shore is described as having moderate archaeological sensitivity (AMBS:93).

#### 3.2.3.4 Palais Royale Site 684 Hunter Street Newcastle (AHMS 2011)

The Aboriginal archaeological salvage of this site entailed digging a trench 16 metres long by three metres wide (48 square metres), which was excavated to one to two metres deep in 10 centimetre spits (arbitrary levels). The excavation recovered 5,534 Aboriginal objects (AHMS 2011:10). Radiocarbon dating of excavated material indicated the site was occupied from approximately 6,700 years ago and three occupation periods were identified: 6,716 to 6,502 years BP, c. 3,500 years BP and 2,480 to 1,933 years BP.

From 3,500 years BP the use of exotic stone raw materials including chert, chalcedony and silcrete were noted. An Aboriginal hearth (fireplace) was dated to 2,188 to 1,933 cal. years BP and this level (2,480-1,933 years BP) appears to have been a focus for occupation with artefacts becoming four times more numerous than previous levels. Nobbys tuff was used as a raw material for stone artefacts throughout the sequence. Backed blades were present throughout all layers of the site with a proliferation of this tool type in the upper layers. Campsite occupation including the consumption of local shell species only appears to have occurred at the site after about 1,933 years BP (AHMS 2011).

#### 3.2.3.5 Wickham Transport Interchange, Newcastle: Aboriginal Heritage Summary Report. (Artefact Heritage 2014)

Artefact Heritage was engaged by Transport for NSW to prepare an Archaeological Survey Report (ASR) for the proposed Wickham Transport Interchange (Artefact Heritage 2014). The report found that the study area had potential for archaeological deposits and that further archaeological investigation would be required where sub-surface impacts had the potential to impact buried Aboriginal archaeological deposits. The study area was registered as a PAD (AHIMS 38-4-1716).

Artefact Heritage also prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR). This ACHAR recommended a program of archaeological test excavation be undertaken to further investigate the archaeological potential of the study area. As a result of this, an AHIP (#C0000892) was issued on the 13 March 2015.

Salvage excavations were undertaken in two stages (Artefact Heritage 2015). Stage I was undertaken between 13 April and 30 April 2015 and identified approximately 391 artefacts. Stage II, undertaken between 11 June and 7 July 2015, was completed in an area adjacent to areas of high artefact concentration identified during Stage I. Approximately 3,912 artefacts were identified during Stage II salvages. It was concluded there was the potential for two main vertical concentrations, possibly representing two occupation layers, of artefacts to be present within the collected assemblage, and as a result the site had high significance and research value.

### **3.2.4 Summary of Aboriginal archaeological context**

The archaeological investigations undertaken have identified subsurface Aboriginal heritage. The types of sites predominately comprise stone artefacts and shellfish remains (middens).

Some excavations have identified intact subsurface Aboriginal material underneath previously disturbed areas, which demonstrates that previous land use has not, necessarily, removed Aboriginal objects. However, it should be acknowledged that the distribution of Aboriginal material is not spatially uniform and that some areas have contained only disturbed archaeological contexts and other area contained relatively intact deposit. There is a high likelihood that subsurface Aboriginal material is present in the Rezoning Area, but its distribution would need to be further investigated.

## 4.0 Historical context

This section provides an overview of the historic occupation of Newcastle by European and later settlers. The historic context has been used to identify historic archaeological areas specific to the Rezoning Study Area and will be drawn upon for the impact assessment.

### 4.1 A convict settlement

The first reference to the area now known as Newcastle was in 1797 when Lieutenant John Shortland, while returning from pursuing escaped convicts, noticed the small island of Nobbys (Goold 1981:4). Drawing into the inlet behind the island, Shortland found the entrance to a large river which he named in honour of Governor Hunter (Newcastle and District Historical Society. n.d.:6). While surveying the area he noticed lumps of coal near present day Fort Scratchley and collected samples before returning to Sydney (Windross and Ralston 1978:7).

In 1801 Governor King sent a small expedition to investigate the resources of what was known as Coal River (now Hunter River). The subsequent report detailed the potential for a salt works, the presence of coal and an abundance of shell for the production of lime. On this advice a small settlement was established but it failed after only six months because of inadequate management. In 1804 Governor King again sought to establish a convict settlement at what he called King's Town (Windross and Ralston 1978:9) with a small party of 20 soldiers and a similar number of convicts. These convicts were part of the Irish Rebellion at Castle Hill with their relocation required because of their perceived danger to the settlement at Sydney (Turner 1997:7).

The new settlement at Newcastle provided an additional location for the housing of convicts and a place for the procurement of timber, coal and lime for Sydney. With the only method of transport by sea, loading facilities and safe anchorages for boats were critical to the success of the settlement.

Records indicate that by 1804 there was a stone wharf, 108 feet long and 13 feet wide being built at the end of present day Watt Street (Goold 1981:12). This wharf is likely to have serviced an early recorded coal yard in the vicinity and later the Convict Lumber Yard constructed in 1817.

In 1812 when Governor Macquarie visited the settlement it was still small with a population of about 100. By 1815 the size of the settlement had swollen with an influx of convicts following the closure of Norfolk Island (Turner 1997:8). This growth continued and by 1821 there were 1,169 people living in what was described as a camp. The convicts were employed predominantly in public works, most importantly the construction of a breakwater to Nobbys to provide better protection for shipping. The remainder of the convicts were employed in timber, lime production and coal mining (Turner 1997:9).

In his investigation of the penal settlement of Newcastle, J T Bigge (1822:282) described the settlement as a camp with 13 houses belonging to the government and 71 occupied by convicts. Bigge also described that prisoners who either could not find accommodation or who could not be trusted at large, were housed in wooden barracks that had been recently built on the order of Major Morisset (Bigge 1822:282).

### 4.2 Newcastle as a free town

In 1823 Governor Macquarie announced that Newcastle would no longer be a convict settlement, whereby the role would be delegated to Port Macquarie further north. Following this, the population of Newcastle declined and the large barracks that had been constructed to cater for a thousand men now only housed one hundred. Despite the change in the role of Newcastle, convicts were still assigned there until 1848. Works on the breakwater slowed and the stands of timber were no longer readily available (Turner 1987:11).

Despite the loss of Newcastle as a significant penal settlement, the 1820s saw important developments. In 1827 Henry Dangar, a surveyor, drew up a layout for a town plan with 192 leasehold allotments established (Goold 1981:26). Other improvements included the building of a brick flour mill at the present day Obelisk location above King Edward Park; the building of a parsonage; and the construction of the first Court House in Church Street (Goold 1981:22). Importantly, Newcastle developed as a free town following the demise of the penal settlement.

Central to this development was the extraction and shipping of coal. The Australian Agricultural Company (AA Company) with a monopoly on coal extraction, saw a growth in output from 5,000 tons (1831) to 30,500 tons (1840). Linked to the growth of the coal industry was the development of the port and associated activities such as tugs and lighters to facilitate movement of vessels and cargo, disposal of ballast and provisioning of ships (McManus, O'Neill and Loughran 2000:213).

As the town grew, further residential development occurred, including the AA Company as early as 1852 tasking the company surveyor, George Darby, with laying out a town settlement in the area of present day Darby; King and Hunter Streets. This was designed to meet the needs of an influx of diggers from the goldfields who saw Newcastle as an attractive location to settle (Pemberton 1986:31).

The growth in Newcastle was matched by growing regional development linked to the pastoral industry of the Hunter Valley and northern NSW. In 1854, AA Company sold land in the north eastern portion of their estate to the Hunter Valley Railway Company. The construction of the Newcastle to Maitland Railway, the second passenger line in Australia, fostered the continued development of the port of Newcastle. The rail network expanded rapidly and was matched by the growth of Newcastle with industries demonstrated by the establishment of businesses such as the Newcastle Coke and Gas Company; Castlemaine Brewery and Wood Brothers Brewery; Darks Ice and Cold Storage; and Arnott's Biscuits (Pemberton 1986:41).

From the late nineteenth century, output from the Newcastle mines decreased and production from the South Maitland coalfields increased with a resulting diminishing profitability for the Newcastle mines. Linked to this was increasing Municipal taxes on unimproved land that affected the large holdings of the Company in the Newcastle area. The Company countered by subdividing and selling large areas of residential land in Newcastle and Hamilton (Pemberton 1986:41).

### 4.3 Growth in the twentieth century

In 1916, the last AA Company shaft ceased production and the Company's operation in Newcastle closed. The staithes associated with the iron bridge were last used in 1920 and in 1923, the steel bridge was removed (NSW Heritage Database: AA Company's Remnant Bridge Pier). In 1922, the waterfront land held by the AA Company was resumed and with it coal mining in Newcastle by the AA Company ceased (Webber and Wylie 1968:63)

The need for new industries to drive the growth of Newcastle resulted in lobbying by the Chamber of Commerce for a diversified industry base. In 1913, the state government announced the construction of State Dockyards in Newcastle and at the same time gave permission for BHP to construct a steelworks on land at Port Waratah. The development of these industries coincided with World War I and by the end of the war other heavy industries, such as Lysaght, Commonwealth Steel and Rylands were also in the process of establishing (Newcastle City Council 2014:8).

Newcastle for the majority of the twentieth century was closely linked to heavy industry, typified by BHP. With the closure of the BHP in 1999 the opportunity arose for the city to re-focus from a heavy industrial base to a more diversified economy based on health, education and services (Newcastle City Council 2014:8).



## 5.0 Historical archaeological context

This section identifies archaeological resources in the proposal area and the potential for additional archaeological resources to occur. Identified archaeological resources are archaeological resources that are extant and verified through archaeological monitoring or excavation. The assessment of potential archaeological resources is based on a review of documentary records only; detailed assessments of archaeological potential based on a detailed analysis of documentary records and an understanding of the historic context would be required prior to the development of land parcels. The locations of archaeological resources are identified in Figure 3, Figure 4 and Figure 5.

### 5.1.1 Relics identified under Section 139 exception for removal of rail infrastructure

The removal of rail infrastructure under a Section 139 exception exposed a number of archaeological resources in the proposal area. The archaeological resources are identified Table 9 with reference to the land parcel as appropriate.

### 5.1.2 Other identified archaeological resources

Other archaeological resources identified in the proposal area include a turntable installed at Honeysuckle Point terminus in 1857 (EJE Architecture 2016) (Table 9).

**Table 9 Identified archaeological resources in the proposal area**

Parcel	Identified archaeological resource	Description
Parcel 16	Turntable, Honeysuckle Point	Circular brick platform with slight downward slope towards edge. Central concrete block which acted as a mounting base for the central pivot. Near the edge of the platform a 460 millimetre wide brick ledge that supported a running rail. Brick drain at outer edge of platform. Circular brick wall with internal height of 1550 millimetres surrounding platform.
Parcel 12	1862 AA Company abutment	Stone abutment associated with 1862 AA Company Hunter Street overpass at Crown Street.
Parcel 12	Unidentified structure	Unidentified rectilinear brick structure.
Parcel 12	Cisterns	Two brick and mortar lined cisterns associated with the railway.
Parcel 12	Wall	Unidentified stone wall section.
Parcel 14	Wall, Market Street Boat Harbour	Stone wall associated with Market Street Boat Harbour.
Parcel 14	Turntable, Newcastle Station	Two sections of semicircular brick associated with turntable, Newcastle Station.

## 5.2 Potential archaeological resources

The area demonstrates the potential for archaeological resources associated with the penal settlement and the later development of rail and port infrastructure. The Newcastle Archaeological Management Plan Review 2013 identified the potential for an area between west of Market Street and Pacific Street to contain archaeological resources associated with the penal settlement (Higginbotham 2013). With the later development of rail and port infrastructure, potential archaeological resources in the area include potential archaeological resources associated with the former Honeysuckle Point Station, Mortuary Station and rail and port infrastructure in addition to that identified under a Section 139 exception for the removal of rail infrastructure (Table 10). The potential for additional archaeological resources below the level of excavation required for the removal of rail infrastructure would be dependent on the level of disturbance in that area. Detailed assessments of archaeological potential would be required prior to development to determine the

potential for archaeological resources in specific areas and the potential of a proposed development to affect an identified or potential archaeological resource.

## 6.0 Inspection

All historic heritage items listed in Table 3 through to Table 8 have been inspected on a number of occasions as part of ongoing works associated with the rezoning project. All structures were seen to be in generally good repair, with the exception of the Great Northern Hotel.

A number of buildings have been the subject of renovation and adaptive re-use (the Lucky Country Hotel; Customs House; Former Tramway Substation; Civic Railway Workshops; the Former ANZ Building; the Former Johns Buildings and the Former Frederick Ash Building). Further investigation of the buildings that are either in, or in an area that intersects with the Project Area was conducted. All items were in good condition, with many of the buildings associated with the Civic Railway Workshops having undergone extensive renovations and refurbishment to suit a range of purposes including as the home of the Newcastle Regional Museum and the headquarters of Australian Wine Selectors. Civic Railway Station, Newcastle Railway Station and the Newcastle Railway Station Additional Group are currently not operational; however they all appear to be well maintained. The Remains of AA Co. Bridge and Fence (also referred to as AA Company Remnant Bridge Pier) comprises remnants piers of a railway bridge and an early railway fence. While they are not maintained they appear to be in a condition that is consistent with their age and material type.

The majority of the buildings listed as in close proximity (Table 4; Table 6; Table 8) are across the street from the proposed Project Area.

## 7.0 Potential impact and approvals required

### 7.1 Aboriginal cultural heritage

There are no registered Aboriginal sites in the Rezoning Area. However, based on previous archaeological investigations subsurface Aboriginal sites have been identified in the surrounding area and it is therefore considered that Rezoning Area is archaeologically sensitive for Aboriginal heritage.

The Aboriginal objects most likely to occur are stone artefacts and shellfish remains (described as middens). These site types reflect the local environment and the utilisation of the Aborigines of local resources.


It is recommended that prior to ground disturbance works occurring that:

- The Aboriginal community is consulted through the ACHCR including a survey of the Rezoning Area ; and
- An Aboriginal Cultural Heritage Assessment Report is prepared.


### 7.2 Built heritage

There are six built heritage items in or abutting the area: the Newcastle Railway Station and the Newcastle Railway Station Additional Group (both on the State Heritage Register); the Civic Railway Workshop; Civic Station; the Remains of AA Co. Bridge and Fence and the former Tramway Substation (on the NLEP 2012 Schedule 5 and of local heritage significance).


### 7.2.1 Civic Railway Workshops

<b>Listing</b>	NSW Heritage Register (SHR956); Newcastle City Council LEP (Item I479)	
<b>Address</b>	Great Northern Railway Newcastle	
<b>Ownership</b>	Honeysuckle Development Corporation (state government)	
<b>Description</b>	<p>Civic Railway Workshops is an outstanding industrial Victorian workshop group. The whole group is of highest significance in the State. Construction of workshops in Newcastle was brought about for two reasons: separation of the Great Northern lines from the main system from 1857 to 1889; and in recognition of the exclusive facilities and rolling stock required to handle coal traffic.</p> <p>The Lee Wharf site has the potential to contain historical archaeological remains, including remains of State significance. These remains may lie both within the boundary of the State Heritage Register and outside (SHI database 5044977).</p>	
<b>Impact</b>	<p>Potential impact on archaeological site/s through excavations for works however no proposed physical impact on the built structures (workshops).</p> <p>Potential visual impact to the workshops particularly 2-4 Merewether Street (Newcastle Museum).</p>	
<b>Approvals</b> <i>NSW Heritage Act 1977</i>	<p><b>Major alterations or demolition:</b> Application under S60 supported by a Conservation Management Plan and Heritage Impact Assessment.</p> <p><b>Minor alterations, maintenance or repair:</b> Application for Exemption under S57(2) to carry out works.</p> <p><b>Subsurface disturbance:</b> In addition if proposed works are likely to disturb subsurface relics under the: S57(2) Excavation <u>Exception</u> Application</p> <p><b>If</b> relics are uncovered lodgement of S60 Application for an Excavation Permit</p>	<p><b>Background to requirement for approvals:</b> The Civic Railway Workshops is listed on the State Heritage Register with approval required from the NSW Heritage Council for any works.</p> <p><b>Subsurface disturbance:</b> Existence of archaeological relics is unknown; if relics are uncovered a Excavation Methodology will be required and lodged to support the S60 Application for an Excavation Permit.</p>
		


7.2.2 Civic Railway Station Group

<b>Listing</b>	S170 State government agency (SRA623)	
<b>Address</b>	Hunter Street, Civic Station	
<b>Ownership</b>	Sydney Trains. State Government	
<b>Description</b>	Civic Railway Station opened in 1935, is the location of the original Honeysuckle Railway Station (1857). The current station is described as modest single storey, Inter-War Functionalist in style. The footbridge is described as the only known example constructed on brick piers (SHI Database 4801623).	
<b>Impact</b>	Potential impact on item, but subject to a voluntary planning agreement (VPA), the future use subject to negotiation with Newcastle City Council.	
<b>Approvals</b> <i>NSW Heritage Act 1977</i>	<p><i>NSW Heritage Act 1977:</i></p> <p><b>Major alterations or demolition:</b> Internal Approval Process for state owned Asset. Supported by Heritage Impact Assessment.</p> <p><b>Minor alterations, maintenance or repair;</b> All changes must be lodged on the Heritage Division’s Heritage Data Form</p> <p><i>NSW Heritage Act 1977:</i> In addition if proposed works are likely to disturb subsurface relics under the: S139(4) Excavation <u>Exception</u> Application <b>If</b> relics are uncovered lodgement of S140 Application for an Excavation Permit</p>	<p><b>Background to requirement for approvals:</b> This parcel contains the Civic Railway Station buildings including the Overhead Footbridge.</p> <p><b>Subsurface disturbance:</b> Existence of archaeological relics is unknown, if relics are uncovered a Excavation Methodology will be required and lodged to support the S140 Application for an Excavation Permit</p>
		

7.2.3 Remains of the AA Company Bridge and Fence


<b>Listing</b>	Newcastle City Council LEP (I145)	
<b>Address</b>	280 Hunter Street, Newcastle	
<b>Ownership</b>	Unknown	
<b>Description</b>	The remnant AA Company bridge pier and railway fence form a tangible link to the Australian Agricultural Company coal mining operation. The bridge remnants mark what was both a bottleneck and a vital connection for the Company the bridge was constructed to allow an easier relationship between the Company's coal transport activities and the transport needs of the growing town of Newcastle (SHI 2172035).	
<b>Impact</b>	Area zoned public recreation, low to nil impact as a result of rezoning, but potential impacts arising out of Newcastle Light Rail Project, subject to negotiation with Newcastle City Council.	
<b>Approvals</b> <i>NSW Heritage Act 1977</i> & <i>NSW Environmental Planning and Assessment Act 1979</i>	<p><i>NSW Environmental Planning and Assessment Act 1979:</i></p> <p>If the footings and fence are on Newcastle City Council land -</p> <p><b>Statement of Heritage Impact</b> must be lodged with Council prior to any works in proximity to the heritage items.</p> <p><i>NSW Heritage Act 1977:</i></p> <p>If the Remains are on state owned land -</p> <p><b>Major alterations or demolition:</b></p> <p>Internal Approval Process for state owned Asset. Supported by Heritage Impact Assessment.</p> <p><b>Minor alterations, maintenance or repair;</b></p> <p>All changes must be lodged on the Heritage Division's Heritage Data Form.</p> <p>In addition under the <i>NSW Heritage Act 1977:</i></p> <p>Removal of the existing Remains of AA Company Bridge and Fence, if approved would require a S140 Application for an Excavation Permit.</p>	<p>The Remains of AA Company Bridge and Fence are in evidence and are likely to include in addition, archaeological relics.</p>
		

7.2.4 Tramway Substation (Former)


<b>Listing</b>	Newcastle City Council LEP (Item I416)	
<b>Address</b>	342 Hunter Street, Newcastle	
<b>Ownership</b>	Unknown	
<b>Description</b>	Historically important due to tramway. Probably constructed when tramway was electrified in 1923. , Important townscape element being one of few on north side of street in this vicinity. The interiors are of significance (SHI 2170183)	
<b>Impact</b>	Potential for construction of buildings to affect Tramway Substation (Former) remains.	
<b>Approvals</b> <i>NSW Heritage Act 1977</i> & <i>NSW Environmental Planning and Assessment Act 1979</i>	<i>NSW Environmental Planning and Assessment Act 1979</i> Newcastle City Council requires a Statement of Heritage Impact be lodged with Council prior to any works.	The Tramway Substation (Former) abuts Parcel 08. The construction of buildings to a height 14m on the northern boundary (Parcel 11). A Statement of Heritage Impact is required if there is development in the vicinity of a heritage item.
		



7.2.5 Newcastle Railway Station Additional Group

<b>Listing</b>	NSW Heritage Register (SHR01212) : S170 State government agency (SRA28)	
<b>Address</b>	Great Northern Railway	
<b>Ownership</b>	Sydney Trains. State Government	
<b>Description</b>	The Newcastle Signal Box built in 1936 a major technical achievement at the time, it was the only Type O signal box provided with an electro-pneumatic miniature lever power interlocking machine. One of the few signal boxes in the State to retain the original signalling frame, it was decommissioned sometime after 2012 (SHI Database 5012122).	
<b>Impact</b>	Proposed heritage building remains with adaptive reuse.	
<b>Approvals</b> <i>NSW Heritage Act 1977</i>	<p><b>Major alterations or demolition:</b> Application under S60 supported by a Conservation Management Plan and Heritage Impact Assessment.</p> <p><b>Minor alterations, maintenance or repair:</b> Application for Exemption under S57(2) to carry out works.</p> <p><b>Subsurface disturbance:</b> In addition if proposed works are likely to disturb subsurface relics under the: S57(2) Excavation <u>Exception</u> Application <b>If</b> relics are uncovered lodgement of S60 Application for an Excavation Permit</p>	<p><b>Background to requirement for approvals:</b> The Newcastle Railway Station Additional Group is listed on the State Heritage Register with approval required from the NSW Heritage Council for any works.</p> <p><b>Subsurface disturbance:</b> Existence of archaeological relics is unknown; if relics are uncovered an Excavation Methodology will be required and lodged to support the S160 Application for an Excavation Permit.</p>
		

7.2.6 Newcastle Railway Station

<b>Listing</b>	NSW Heritage Register (SHR00236 & 1212) : S170 State government agency (SRA28); Newcastle City Council LEP (Item I455)	
<b>Address</b>	LOT 22 DP 1009735	
<b>Ownership</b>	Sydney Trains. State Government	
<b>Description</b>	Building phases from 1878 to 1929. The station is a fine example of Victorian Station architecture and is an important heritage feature in the Newcastle city centre (SHI Database 5044973).	
<b>Impact</b>	Heritage buildings are to remain with proposed adaptive reuse	
<b>Approvals</b> <i>NSW Heritage Act 1977</i>	<p><b>Major alterations or demolition:</b> Application under S60 supported by a Conservation Management Plan and Heritage Impact Assessment.</p> <p><b>Minor alterations, maintenance or repair:</b> Application for Exemption under S57(2) to carry out works.</p> <p><b>Subsurface disturbance:</b> In addition if proposed works are likely to disturb subsurface relics under the: S57(2) Excavation <u>Exception</u> Application <i>If</i> relics are uncovered lodgement of S60 Application for an Excavation Permit</p>	<p><b>Background to requirement for approvals:</b> The Newcastle Railway Station is listed on the State Heritage Register with approval required from the NSW Heritage Council for any works.</p> <p><b>Subsurface disturbance:</b> Existence of archaeological relics is unknown; if relics are uncovered a Excavation Methodology will be required and lodged to support the S60 Application for an Excavation Permit.</p>
		

### 7.2.7 Newcastle City Centre Heritage Conservation Area

<b>Listing</b>	Newcastle City Council LEP – Conservation Area C4	
<b>Address</b>	Hunter, Scott, Watt, Newcomen, King, Perkins, Brown, Crown, Wolfe and Keightley Lane	
<b>Ownership</b>	Various	
<b>Description</b>	The assemblage of commercial and civic buildings is a powerful reminder of the city's rich history and its many phase of development (SHI 2173904).	
<b>Impact</b>	The development of proposed rezoning area will affect Newcastle City Centre Heritage Conservation Area (NCCHCA). Following removal of the heavy rail it is intended the rezoning will assist in the retention, maintenance and refurbishment of heritage buildings therefore enhancing the NCCHCA, though new development will affect the setting and character of the NCCHCA. New development may also affect archaeological resources, which also contribute to the significance of the NCCAHC. However, the improved public domain and adaptive re-use of heritage buildings and interpretation of the archaeological resources will enhance the NCCHCA.	
<b>Approvals NSW Heritage Act 1977 &amp; NSW Environmental Planning and Assessment Act 1979</b>	<p><i>NSW Environmental Planning and Assessment Act 1979</i></p> <p>Newcastle City Council requires a Statement of Heritage Impact be lodged with Council prior to any works.</p>	<p><b>Background to requirement for approvals:</b></p> <p>New Development adjacent to a heritage item requires a Statement of Heritage Impact:</p> <p><i>All new development in the conservation area should be treated as 'infill', that is, it should respect the design of its neighbours and the character of the area generally. Similar principles are applied to infill development as are applied to alterations and additions, and must begin with an understanding of the design and heritage significance of the buildings to which it relates.</i></p> <p><i>Infill development should not copy or replicate its neighbouring traditional buildings. Rather, it is appropriate to interpret the features of the neighbouring buildings and design them in a way that reflects and respects them (Newcastle Heritage Conservation Areas Section 5.07.07).</i></p>

### 7.2.8 Heritage items in the vicinity of the proposed rezoning

Table 3; Table 5 and Table 7 identify heritage buildings that are in the NCCHCA and in the vicinity of the area designated for the proposed rezoning.

It is considered those heritage buildings will be not be physically impacted on by works resulting from the rezoning, however there is potential impact for visual impact from the placement of new buildings. Under the *NSW Environmental Planning and Assessment Act 1979*, Newcastle City Council requires a Statement of Heritage Impact be lodged with Council prior to any works in a heritage conservation area. New development in a conservation area is considered as infill development and as described in Section 7.2.7.

### 7.3 Historical archaeological heritage

There are a number of identified and potential archaeological resources in the area proposed for rezoning. The rezoning would not directly affect identified or potential archaeological resources. Detailed assessments of archaeological potential would be required prior to development to determine the potential for archaeological resources in specific areas and the potential of a proposed development to affect an identified or potential archaeological resource. The approvals required would be dependent on the significance of the archaeological resource and the potential for the proposed development to affect that significance.

### 7.4 Summary of approvals required

Table 10 details each Parcel that contains heritage items and provides advice on the approvals required, dependent on the developments proposed.

**Table 10 Heritage Items in proposed rezoning parcels**

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977</i> or the <i>NSW Environmental Planning and Assessment Act 1979</i> ; <i>NPW Act 1974 (as Amended)</i>
Parcel 01	<ul style="list-style-type: none"> <li>- Mortuary Station (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended)</i>: <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 02	<ul style="list-style-type: none"> <li>- Civic Railway Workshops Group and railway turntable (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended)</i>: <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 03	<ul style="list-style-type: none"> <li>- Civic Railway Workshops Group and railway turntable (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended)</i>: <b>AHIP</b> for ground disturbance works</li> </ul>

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977 or the NSW Environmental Planning and Assessment Act 1979; NPW Act 1974 (as Amended)</i>
	<ul style="list-style-type: none"> <li>- Civic Railway Station Group (Built)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
Parcel 04	<ul style="list-style-type: none"> <li>- Civic Railway Station Group (Built)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
Parcel 5	<ul style="list-style-type: none"> <li>- Civic Railway Station Group (Built)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
Parcel 07	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
Parcel 08	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
Parcel 09	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>
Parcel 10 (	<ul style="list-style-type: none"> <li>- Tramway Substation (Former) (Built)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works</li> </ul>

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977</i> or the <i>NSW Environmental Planning and Assessment Act 1979</i> ; <i>NPW Act 1974 (as Amended)</i>
Parcel 11	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ NSW Heritage Act</li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i> NPW Act 1974 (as Amended): <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 12	<ul style="list-style-type: none"> <li>- Remains of AA Company Bridge and Fence (Built)</li> <li>- AA Co sandstone abutment (Archaeological)</li> <li>- Unidentified structure – brick footing (Archaeological)</li> <li>- Cisterns (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended)</i>: <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 13	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended)</i>: <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 14	<ul style="list-style-type: none"> <li>- Newcastle Railway Station Additional Group (Built)</li> <li>- Perkins Street Boat Harbour (Archaeological)</li> <li>- Market Street Boat Harbour (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>NSW Heritage Act 1977</i></li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ <i>NPW Act 1974 (as Amended)</i>: <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 15	<ul style="list-style-type: none"> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ NSW Heritage Act 1977</li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ NPW Act 1974 (as Amended): <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 16	<ul style="list-style-type: none"> <li>- Civic Turntable</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ NSW Heritage Act 1977</li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ NPW Act 1974 (as Amended): <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 17	<ul style="list-style-type: none"> <li>- Civic Railway Workshops Group and railway turntable (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ NSW Heritage Act 1977</li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ NPW Act 1974 (as Amended): <b>AHIP</b> for ground disturbance works</li> </ul>

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977</i> or the <i>NSW Environmental Planning and Assessment Act 1979</i> ; <i>NPW Act 1974 (as Amended)</i>
Parcel 18	<ul style="list-style-type: none"> <li>- Civic Railway Workshops Group and railway turntable (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ NSW Heritage Act 1977</li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ NPW Act 1974 (as Amended): <b>AHIP</b> for ground disturbance works</li> </ul>
Parcel 19	<ul style="list-style-type: none"> <li>- Civic Railway Workshops Group and railway turntable (Archaeological)</li> <li>- Newcastle City Centre Heritage Conservation Area</li> <li>- Potential Aboriginal site</li> </ul>	<ul style="list-style-type: none"> <li>▪ NSW Heritage Act 1977</li> <li>▪ <i>NSW Environmental Planning and Assessment Act 1979</i></li> <li>▪ NPW Act 1974 (as Amended): <b>AHIP</b> for ground disturbance works</li> </ul>

## 8.0 Recommendations

The recommendations relating to the management of built and archaeological resources are presented below.

### 8.1 Aboriginal archaeological sites

Aboriginal archaeological sites will need to be assessed, investigated and if necessary, salvaged and interpreted and will require Aboriginal consultation where there is potential to impact Aboriginal objects. The impact assessment will identify the levels of Aboriginal consultation and investigation required, which will then provide an indication of Aboriginal objects in the area and if salvage and interpretation are necessary. As each of these stages are

#### 8.1.1 Impact Assessment

The potential impact on Aboriginal heritage for each Development Application must be assessed. Previous Aboriginal heritage assessments may be used to supplement the impact assessment, where relevant, but the level of assessment required should be identified by a qualified heritage professional. The impact assessment can be undertaken as a Due Diligence Aboriginal Heritage Assessment under the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010c). However, where known Aboriginal sites have been identified and are likely to be impacted by the proposed development, impact assessment should be in the form of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and produced in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b).

#### 8.1.2 Aboriginal Consultation

The Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) for proponents process is a regulatory requirement when there is potential for impact on Aboriginal objects it is also a valuable method of ensuring that the Aboriginal community is fully involved in the decision making process. Proponents should engage with the Aboriginal community through the ACHCR process as part of the development application process. The developer must inform the Aboriginal community of the scale of the proposed development and consult with the Aboriginal community in relation to the cultural significance of the area and the potential for the development to affect Aboriginal objects.

#### 8.1.3 Investigation

Subsurface archaeological investigation may be required, dependent on the outcome of the impact assessment. This may be implemented as *Code of Practice Test Excavation* under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b) or as an Aboriginal Heritage Impact Permit (AHIP), as directed by a qualified heritage professional.

#### 8.1.4 Salvage

The salvage of Aboriginal objects, surface or subsurface, needs to be undertaken in accordance with an AHIP from the Office of Environment and Heritage (OEH). The methodology for undertaking salvage will be determined by the results of the investigation and/or the ACHAR.



### 8.1.5 Interpretation

A heritage interpretation strategy should be developed with the local Aboriginal community to ensure that the Aboriginal heritage of the area is reflected in an appropriate way. The heritage interpretation strategy should be developed as soon as practicable and prior to development within the Rezoning Study Area.

## 8.2 Historic heritage

A well-developed heritage interpretation strategy should be developed to ensure that the portion of the Great Northern Railway between Wickham and its place in the NSW rail network remains part of the city's memory. The heritage interpretation strategy should be developed as soon as practicable and prior to development within the Rezoning Study Area.

### 8.2.1 Built heritage

In general, assessing potential strategies for mitigating against adverse impact, it is considered critical that buildings in the Rezoning Study Area are adequately maintained and protected until a new role is devised and implemented.

#### 8.2.1.1 Visual impact

There will be impact or potential impact on structures in the vicinity of Parcels where new buildings will be constructed to varying heights. Any new buildings should be designed in accordance with the requirements of the Newcastle City Council requirements for the NCCCHA.

#### 8.2.1.2 Construction in the vicinity of heritage items

The Tramway Substation (Former) is in close physical proximity to potential works in Parcel 10 and Parcel 12. During works, protective barriers, designated as no-go zone, should be installed under advice from cultural heritage consultant to mitigate against impact.

#### 8.2.1.3 Adaptive reuse plan for heritage items

The conservation of a heritage building is often best served by sympathetic adaptive reuse. Adaptive reuse needs to be compatible with the building, retain its historic character and conserve significant fabric. This however does not negate the introduction of new services, modifications and additions. Proposals for adaptive reuse of any buildings should be considered in conjunction with the appropriate regulatory authorities. An adaptive reuse plan / conservation management plan should accompany the Development Application and for State Heritage Items will require approval by the NSW Heritage Council.

Newcastle Railway Station (SHR0036) and Newcastle Railway Station Additional Group (SHR1212) are proposed for adaptive reuse. Civic Station is subject to a VPA and therefore its future use is being negotiated with Newcastle City Council.

#### 8.2.1.4 Demolition or removal of structures

Where items are proposed for removal, the impact will be substantial. A full investigation should be made of all options other than removal to ensure that the heritage item is not removed without just cause. If removal is the only option, processes to ensure the heritage value is not lost should be instigated. Those processes should be informed by a heritage interpretation strategy, developed by a suitably qualified heritage consultant.

### 8.2.1.5 [Interpretation](#)

A heritage interpretation strategy should be prepared for as part of the adaptive reuse plan for heritage items being adaptively reused and/or in instances where structures are to be removed or demolished..

## 8.2.2 **Management of archaeological resources**

While it is recognised there are known or potential archaeological resources in the area of proposed rezoning, the entire area has potential for archaeological relics to be present.

### 8.2.2.1 [Conservation principles](#)

The archaeological resources needs to be first investigated and their significance assessed, the management of the resource is to aspire to the highest levels of conservation outcomes. The following conservation principles are to guide the consideration of conservation management options, but must consider the significance of the relic in selecting the most appropriate option. The management options are listed in order of preference:

- Conserve relic in-situ
- Remove relic and conserve – with interpretation
- Remove relic and discard – with interpretation

#### **Option A: In situ conservation**

Impact to archaeological relics should be avoided. Relics should be conserved in situ either through reburial or as a permanent display. If reburied, relics should be covered with a protective layer, such as geofabric and covered with fill. The relic should be documented and information provided for the interpretation. If exposed, protective structures should be erected around the relic to ensure conservation, allowing for sufficient set back to allow the relic to be interpreted by the public.

#### **Option B: Remove relic and conserve – with interpretation**

If impact to the relic cannot be avoided by the proposed works, then options for its removal may be considered. If the relic is of local or state significance then it should be conserved and transferred to an appropriate institution such as a museum or other appropriate storage facility. This transferal is to be accompanied by interpretative documentation. If appropriate, and in line with the significance of the relic, signage or a plaque should also erected at the location of its discovery.

#### **Option C: Remove relic and discard**

If impact to the relic cannot be avoided by the proposed works, then options for its removal may be considered, but is the least preferred outcome and all other options must be rigorously explored prior to this option being selected. This option may need to be implemented where the significance assessment demonstrates that the relic does not meet local or state significance criteria, the item is contaminated or partial removal of a relic is required to conserve the rest of the relic in-situ. In the case of discard, the relic must be exposed, investigated and documented, interpretative material prepared, prior to the discard of the item. Appropriate disposal of the relic must be implemented, particularly if contamination is identified.

## **Interpretation**

The interpretation of the archaeological resources is a key conservation outcome. All conservation management principles are to be implemented with the aim of providing high quality interpretation.

#### 8.2.2.2 [Roles and responsibilities](#)

The developer would be responsible for managing archaeological resources. The developer should consult with a qualified archaeologist, and where appropriate the Heritage Division of the Office of Environment and Heritage (OEH).

Contractors involved in ground disturbance of areas with archaeological resources or the potential for archaeological resources should be informed of their obligations in relation to archaeological issues. Contractors would be responsible for reporting all unexpected archaeological resources to the proponent. Unexpected archaeological relics must be reported to the Heritage Division of the OEH in accordance with Section 146 of the Act.

#### 8.2.2.3 [Impact assessment](#)

Impact to archaeological resources and areas of archaeological potential must be assessed as part of the development application process. The impact to archaeological resources and areas of archaeological potential should be assessed as early as possible to minimise the potential for impact and also potential delays associated with obtaining approval under Section 140 of the *Heritage Act 1977*, or Section 60 for SHR areas. Where ever possible, impact to archaeological resources should be avoided or minimised.

#### 8.2.2.4 [Investigation / Salvage](#)

The preliminary investigation of archaeological resources may require an exception under s139 of the *Heritage Act 1977*, or s57 for State significant relics, but this will need to be determined by a qualified heritage professional and is dependent upon the nature of proposed works and archaeological significance.

Where archaeological relics are unable to be avoided, approval must be obtained under Section 60 for archaeological resources of State significance and Section 140 of the Act for archaeological relics of local significance. Ground disturbance proposed in areas of archaeological potential must be proceeded by, or carried out in conjunction with, archaeological investigation, which may include ground penetrating radar, excavation and detailed recording. The archaeological research design that would be prepared to support a Section 140 or Section 60 application would set out the research questions and archaeological methods as appropriate to impact associated with each development.

#### 8.2.2.5 [Remediation](#)

Contamination is considered a significant constraint to the conservation of archaeological resources within the rezoning area. The level of contamination varies, but may include hydrocarbons and asbestos and require remediation prior to adaptive reuse and potential new development. Remediation should be monitored with archaeological resources investigated as far as safe and practicable, and in accordance with relevant approvals under the *Heritage Act 1977*.

#### 8.2.2.6 [Utilities](#)

In general, ground disturbance for the purpose of exposing or accessing underground utilities is appropriate where the disturbance would occur within that of the existing service or the disturbance would not affect known or potential archaeological resources.

#### 8.2.2.7 [Interpretation](#)

The archaeological resources within each land parcel should be interpreted as part of the development process. Interpretive options should be considered at the development application stage and should be framed within a heritage interpretation strategy.

### 8.3 Implementation and Indicative Timing

Implementation of the recommendations will need to be undertaken at different stages. An indicative timeline is provided in Table 10. It should be noted that some components are dependent of the results of previous investigations/impact assessments and that not all components will be required for each development proposal.

**Table 11 Implementation and Indicative Timing**

Component	Indicative Timing for Implementation
<b>Aboriginal Heritage</b>	
Impact Assessment	Prior to DA lodgement
Aboriginal Consultation	Prior to investigation or salvage, if Aboriginal objects are to be impacted
Investigation	Post DA approval, but only if the need for investigation is identified in the impact assessment.
Salvage	Post DA approval, but only if the need for salvage is identified in the impact assessment or investigation.
Interpretation	Post DA approval, but only if the need for interpretation is identified in the impact assessment or investigation
<b>Built Heritage</b>	
Adaptive Reuse plan / Conservation Management Plan	Prior to DA lodgement and additional approval under the <i>Heritage Act 1977</i> , if necessary.
Heritage Interpretation Strategy	Post DA approval, but prior to construction works.
<b>Archaeological Resources</b>	
Impact Assessment	Prior to DA lodgement
Investigation / Salvage	Post DA approval, but prior to, or concurrent with construction works as stipulated in the archaeological research design, or monitoring methodology and in accordance with approvals under the <i>Heritage Act 1977</i> .
Heritage Interpretation Strategy	Post DA approval

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# Appendix I

## AHIMS Results

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
38-4-1716	Wickham Transport Interchange PAD	GDA	56	383426	6356757	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	<b>Contact</b>	<b>Recorders</b>	Artefact Heritage Services,Ms.Alyce Howard					<b>Permits</b>	3809	
38-4-1223	Wickham UFCCALE OS1	GDA	56	384166	6356333	Open site	Valid	Artefact : 1		
	<b>Contact</b>	<b>Recorders</b>	Streat Archaeological Services					<b>Permits</b>		
38-4-1222	Cottage Creek OSI	GDA	56	384250	6356324	Open site	Valid	Artefact : 1		
	<b>Contact</b>	<b>Recorders</b>	Streat Archaeological Services					<b>Permits</b>		
38-4-1642	409 Hunter Street Newcastle Fill duplicate of 409 Hunter Street Newcastle Insitu	GDA	56	385099	6356088	Open site	Valid	Artefact : -, Shell :-		
	<b>Contact</b>	<b>Recorders</b>	Mr.Benjamin Streat					<b>Permits</b>		
38-4-1632	TA1 Newcastle	GDA	56	386378	6356088	Open site	Destroyed	Artefact :-		
	<b>Contact</b>	<b>Recorders</b>	Umwelt (Australia) Pty Limited, Miss.Nicola Roche					<b>Permits</b>	3683	
38-4-0544	700 Hunter Street	AGD	56	384250	6356020	Open site	Valid	Artefact :-		
	<b>Contact</b>	<b>Recorders</b>	Dominic Steele Archaeological Consulting					<b>Permits</b>		
38-4-0952	Bellevue Hotel PAD	AGD	56	384250	6356200	Open site	Valid	Potential Archaeological Deposit (PAD) :-		99845,99874
	<b>Contact</b> Searle	<b>Recorders</b>	Mr.Dominic Steele					<b>Permits</b>	2382	
38-4-0832	Empire Hotel PAD	AGD	56	384300	6356000	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	<b>Contact</b> T Russell	<b>Recorders</b>	Jim Wheeler					<b>Permits</b>	2128	
38-4-0831	Palais Royale	AGD	56	384300	6356100	Open site	Partially Destroyed	Potential Archaeological Deposit (PAD) :-, Artefact : 5534, Shell :-		102256
	<b>Contact</b> T Russell	<b>Recorders</b>	University of Newcastle, Jim Wheeler					<b>Permits</b>	2127,2593,3098,3502	
38-4-0772	710 Hunter Street Newcastle PAD	AGD	56	384350	6356250	Open site	Valid	Shell :-, Potential Archaeological Deposit (PAD) :-		
	<b>Contact</b>	<b>Recorders</b>	Jim Wheeler					<b>Permits</b>	1981	
38-4-0851	710 Hunter St Newcastle, PAD	AGD	56	384350	6356250	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	<b>Contact</b> S Scanlon	<b>Recorders</b>	Jim Wheeler					<b>Permits</b>		

Report generated by AHIMS Web Service on 04/11/2015 for Tessa Boer-Mah for the following area at Datum :GDA, Zone : 56, Eastings : 382900 - 386600, Northings : 6355700 - 6357200 with a Buffer of 0 meters. Additional Info : heritage assessment. Number of Aboriginal sites and Aboriginal objects found is 18

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.





SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
38-4-0559	The Broadwalk- Newcastle 1	AGD	56	385000	6356250	Open site	Valid	Potential Archaeological Deposit (PAD) : 0		98887
	<b>Contact</b>							<b>Permits</b>	1298,2043,2453	
	<b>Recorders</b>			Mary Dallas Consulting Archaeologists						
38-4-0525	Catholic Education Site	AGD	56	385680	6355710	Open site	Valid	Artefact : -	Open Camp Site	100771
	<b>Contact</b>							<b>Permits</b>		
	<b>Recorders</b>			Margrit Koettig						
38-4-0796	200 Hunter Street PAD	AGD	56	385787	6356006	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<b>Contact</b>			T Russell				<b>Permits</b>	2045,2049	
	<b>Recorders</b>			Mrs. Angela Besant						
38-4-1084	Newcastle CBD PAD	AGD	56	385850	6355900	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<b>Contact</b>							<b>Permits</b>	3008	
	<b>Recorders</b>			Ms. Meaghan Russell						
38-4-1020	Coutts Sailors Home PAD1	AGD	56	386358	6355971	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<b>Contact</b>			T Russell				<b>Permits</b>	2734	
	<b>Recorders</b>			Archaeological & Heritage Management Solutions Pty Ltd (AHMS)						
38-4-1695	11-15 Watt St IF 1	AGD	56	386381	6356080	Open site	Valid	Artefact : -		
	<b>Contact</b>							<b>Permits</b>	3814	
	<b>Recorders</b>			Mr. Benjamin Streat						
38-4-0957	NCL 931	AGD	56	386400	6356000	Open site	Valid	Artefact : -		
	<b>Contact</b>			T Russell				<b>Permits</b>		
	<b>Recorders</b>			Noeleen Curran						

Report generated by AHIMS Web Service on 04/11/2015 for Tessa Boer-Mah for the following area at Datum :GDA, Zone : 56, Eastings : 382900 - 386600, Northings : 6355700 - 6357200 with a Buffer of 0 meters. Additional Info : heritage assessment. Number of Aboriginal sites and Aboriginal objects found is 18

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## Appendix 2

### Historic Heritage Citations for Items in or Abutting the Proposed Rezoning Area



[Home](#) > [Heritage sites](#) > [Searches and directories](#) > NSW heritage search

## Aa Company's Remnant Bridge Pier

### Item details

**Name of item:** Aa Company's Remnant Bridge Pier  
**Other name/s:** Hunter Street Bridge  
**Type of item:** Movable / Collection  
**Group/Collection:** Transport - Rail  
**Category:** Railway gate/ fence/ wall,  
**Primary address:** 280 Hunter Street, Newcastle, NSW 2300  
**Local govt. area:** Newcastle

**Boundary:** The recommended curtilage is for a two metre apron wrapping around footing, with a viewing corridor maintained to Hunter Street.

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
280 Hunter Street	Newcastle	Newcastle			Primary Address

### Statement of significance:

The remnant AA Company bridge pier and railway fence form a significant element of the Australian Agricultural Company Newcastle coal mining group, as they provide rare physical evidence of the Company's complex coal transport system, a vital part of the Company's operations in Newcastle. The bridge remnants mark what was both a bottleneck and a vital connection for the Company throughout its coal mining history in Newcastle, where coal trains from all areas of Newcastle converged at the River at the same time as crossing Newcastle town's main public thoroughfare. Thus the bridge remnants demonstrate both the dynamic system of coal mining and transport that dominated Newcastle in the nineteenth century, as well as commemorating an important intersection of public and private. The iron bridge, of which this pier footing is a remnant, was constructed to allow an easier relationship between the Company's coal transport activities and the transport needs of the growing town of Newcastle demonstrating an aspect of the relationship between the Company and the town and its community.

**Date significance updated:** 03 Apr 05

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.*

### Description

**Builder/Maker:** A.A. Company

**Physical description:** The remnant bridge pier consists of a large rectangular section of brickwork with rounded ends, standing approximately eight rows of brick above ground level. The alignment of the pier base is skewed, reflecting the skewed alignment of the bridge.

It is abutted by a cast iron fence with a brick plinth capped with large sandstone blocks, into which are set the cast iron rods with arrowhead finials of the palisade, also constructed by the AA Company to divide Hunter Street from the adjacent railway land.

A steel security fence has recently been erected on the street side of the original fence to prevent access to the

railway, and this makes it difficult to appreciate its historic character.

**Physical condition and/or Archaeological potential:** In poor condition though appears stable.

**Date condition updated:** 03 Apr 05

**Further information:** Related items; 1022,1115. Conserve remnant fence in situ. Consider reconstruction of remainder.

**Current use:** Still standing

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## History

**Historical notes:** The bridge pier footing on Hunter Street forms an important part of the story of the Australian Agricultural Company. With the Signalman's Cottage, it illustrates the transport activities vital to the coal industry, bringing the coal to the loading facilities at Newcastle Port.

The coal reserves near the mouth of the Hunter River were first noticed in the late eighteenth century, and a penal settlement was established at 'Coal River' in the early years of the nineteenth century. Convict labour was used to exploit the estuary's coal, timber, salt and lime resources. (City Wide Heritage Study, Thematic History, pp. 1-2) The Australian Agricultural Company (hence: the Company), formed in London in 1824, entered the coal industry with the intention of exporting coal to India for use by the steamers of the East India Company. Steamships also began to appear on the coast of New South Wales from 1831, creating the first significant local commercial demand for coal. The Company secured a grant of 2,000 acres of coal bearing land near Newcastle, in 1829. At the same time it secured a form of market protection, which amounted to a near-monopoly on the supply of coal across the following decades. The arrival of the Company could be regarded as the most important event in the nineteenth century history of Newcastle, as it dominated the course of the area's history for much of the nineteenth century and had profound effects on the future development of Newcastle as a City. (City Wide Heritage Study, Thematic History, p. 4; and Campbell. 1994, p. 7)

The entry of the Company into coal mining also transformed the coal mining industry in Australia. The Company was initially given control of the small scale government mines, but almost immediately began constructing its own colliery following more up to date mining practice in Britain. This first mine, known as 'A Pit' opened in 1831, and was the first modern and privately operated colliery in Australia. A Pit was perched on a steep rise overlooking the Hunter River estuary, and its coal was delivered to the port, by an inclined plane which, though it relied on gravity for its power, has been recognised as the first railway in Australia. (City Wide Heritage Study, Thematic History, p. 4; Docherty, 1983, p. 8) The Company subsequently extended its mining activities to the coal-bearing land to the south-west of Shepherds Hill. The 2nd and 3rd collieries, known as the B and C pits, were completed in 1837 and 1842, and the D, E and G Pits were established several miles to the west, in the present Hamilton area, in the late 1840s and 1850s. (Campbell. 1994, p. 8)

The Company's monopoly on coal mining in Newcastle ended in 1847. From 1855 onwards, a number of other large companies entered the scene: the Newcastle Wallsend; the Scottish Australian; the Waratah; and the New Lambton companies. Each of these entities operated in a fairly similar way to the A. A. Company, starting their operations by acquiring title to a suitable tract of land, then founding a settlement to attract a workforce. A ring of townships on the southern edge of the harbour resulted, each with its *raison d'être* in mining or coal based industry. The new townships included Merewether (mid-1930s), Hamilton (1849), Wallsend (1859), Lambton (1860), new

Lambton (1868), and Adamstown (1870). (Docherty, 1983, p. 8)

The development of private railways, side by side with the construction of the great Northern Railway between Newcastle and East Maitland (1854-1857), facilitated the transport of coal to the port, permitting the opening of new mines at Minmi, Wallsend, Lambton, and Waratah within a decade, thereby laying the foundations of Newcastle's key role in the Australian economy. All of these lines converged in the central Newcastle area, aiming for the Port. Two important remnants of this vital transport system survive in the form of Signalman's Cottage, which was built at the junction of one of the Company's lines with the Burwood Coal Company's line to as quarters for the signalman who co-ordinated the transport activities of these lines; and the brick bridge pier footing on Hunter Street, a remnant from the bridge that lifted the converged AA Company lines over the road traffic of Hunter and King Streets as they approached the loading facilities. (City Wide Heritage Study, Thematic History, p. 5)

This remnant brick bridge pier supported the A.A. Company's iron bridge which was erected in 1863-4. The bridge replaced an earlier timber bridge constructed in 1841 to transport coal from the company's mines to its coal loading staithes on the harbour front. This bridge in turn probably replaced a light timber viaduct constructed before 1831 to transport the coal wagons travelling between A Pit, the Company's first colliery, and the River. Standing on the site of this series of bridges, the site of A Pit can be seen directly up the hill to the south, lining up approximately with the former bridge alignments. The second timber bridge was so low in height that it caused inconvenience to traffic using Hunter Street; a person mounted on a tall horse would have had to duck to pass underneath. The third bridge was a three span continuous girder structure of riveted iron, fabricated by Robert Stephenson & Co. of Newcastle-on Tyne, supported on massive brick wall type piers. The bridge was erected on a skew of approximately 54 degrees, about 20 feet away and on a slight angle to the timber structure it replaced. It was some 7 feet higher than the old timber bridge, high enough for traffic to pass beneath without obstruction. It was removed in 1923. The surviving base of one brick pier is visible between the Hunter St footpath and railway land. (Tonks, research)

### Historic themes

<b>Australian theme (abbrev)</b>	<b>New South Wales theme</b>	<b>Local theme</b>
3. Economy-Developing local, regional and national economies	Industry-Activities associated with the manufacture, production and distribution of goods	Industrial technology-goods
3. Economy-Developing local, regional and national economies	Mining-Activities associated with the identification, extraction, processing and distribution of mineral ores, precious stones and other such inorganic substances.	coal mining-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	transportation-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	railways-

### Assessment of significance

#### SHR Criteria a)

[Historical significance]

The remnant AA Company bridge pier and railway fence have historical significance to the State as part of the Australian Agricultural Newcastle coal mining group. The bridge remnants provide rare physical evidence of the Company's complex system of rail lines, connecting the collieries to the loading facilities on the Hunter River, a network

which dominated the geography of central Newcastle in the nineteenth century. The location of the Company's first colliery, A Pit, determined the location of this vital transport node, and the bridge remnants represent the history of coal transport on this site, both a bottleneck and a vital connection for the Company throughout its coal mining history in Newcastle, where coal trains from all areas of Newcastle converged at the River. The bridge remnants also commemorate this important intersection of public and private in nineteenth century Newcastle. The iron bridge, or which this pier footing is a remnant, was constructed to allow an easier relationship between the Company's coal transport activities and the transport needs of the growing town of Newcastle along its main public thoroughfare, demonstrating an aspect of the relationship between the Company and the town and its community.

**SHR Criteria b)**  
[Associative significance]

The remnant bridge pier and fence have a strong association to the Australian Agricultural Company and its coal mining activities in Newcastle, which made a significant contribution to NSW's economy in the nineteenth century, and to the colony's ability to play an active part in the international economy through the steam shipping industry. The bridge remnants provide rare physical evidence of the Company's coal transport activities, and of the Company's interaction with the public world of Newcastle town.

**SHR Criteria c)**  
[Aesthetic significance]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

**SHR Criteria d)**  
[Social significance]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

**SHR Criteria e)**  
[Research potential]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

**SHR Criteria f)**  
[Rarity]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

**SHR Criteria g)**  
[Representativeness]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

**Integrity/Intactness:** The iron fence and brick pier footing are remnants of a much larger structure. Sufficient information in the form of position, original form and materials remain to present a significant historical landmark, which is articulate about the historic shape of Newcastle under the domination of the A A Company.

**Assessment criteria:** Items are assessed against the [State Heritage Register \(SHR\) Criteria](#) to determine the level of significance. Refer to the Listings below for the level of statutory protection.

### Recommended management:

Conservation Plan

### Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan		I415	15 Jun 12	64	
Heritage study					

### Study details

Title	Year	Number	Author	Inspected by	Guidelines used

Newcastle Archaeological Management Plan	1997	1224	Suters, Lavelle, Doring, Turner	C&MJD stage 2	Yes
Review of Potential Heritage Items for NLEP	2003		Ecotecture Pty Ltd		Yes
Review of Items of Potential State Significance in the Newcastle City Area	2008	Part of AA Co coal mining group	Sue Rosen and Associates Heritage Assessment And History (HAAH)	Emma Dortins and Rosemary Kerr	Yes

### References, internet links & images

Type	Author	Year	Title	Internet Links
Written		2007	City Wide Heritage Study, Thematic History	
Written			Research of E. Tonks, historian	
Written	Campbell, David	2000	Reproduced in Conservation Management Plan Suters Architects, Former AA Mine Manager's Residence	
Written	Docherty, J. C.	1983	Newcastle. The Making of an Australian City	

Note: internet links may be to web pages, documents or images.



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### Data source

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**Name:** Local Government  
**Database number:** 2172035

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## Civic Railway Workshops

### Item details

<b>Name of item:</b>	Civic Railway Workshops
<b>Other name/s:</b>	Honeysuckle; Industrial Archaeological Site; Newcastle Museum
<b>Type of item:</b>	Complex / Group
<b>Group/Collection:</b>	Transport - Rail
<b>Category:</b>	Railway
<b>Location:</b>	Lat: -32.9259277396 Long: 151.7713519130
<b>Primary address:</b>	Great Northern Railway, Newcastle, NSW 2300
<b>Parish:</b>	Newcastle
<b>County:</b>	Northumberland
<b>Local govt. area:</b>	Newcastle
<b>Local Aboriginal Land Council:</b>	Awabakal

### Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	511		DP	1030264
PART LOT	5001		DP	1049339
PART LOT	1		DP	1111305
LOT	2		DP	1111305
LOT	3		DP	1111305
LOT	4		DP	1111305
LOT	5		DP	1111305
LOT	9		DP	1128824
LOT	36		DP	1162435
			CP/SP	71834
			CP/SP	71866
PART LOT	2		DP	856783
PART LOT	12		DP	883474
PART LOT	3		DP	883474
PART LOT	4		DP	883474
PART LOT	5		DP	883474
PART LOT	7		DP	883474
PART LOT	9		DP	883474

The listing boundary is formed by Merewether Street to the east, the railway line to the south, Lee Wharf Road to the north and a line crossing the site approximately 50 metres to the west of the last building.

### Boundary:

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
Great Northern Railway	Newcastle	Newcastle	Newcastle	Northumberland	Primary Address
Lee Wharf Road	Newcastle	Newcastle			Alternate Address
Honeysuckle Drive	Newcastle	Newcastle			Alternate Address
Merewether Street	Newcastle	Newcastle			Alternate Address

### Owner/s

Organisation Name	Owner Category	Date Ownership Updated
Honeysuckle Development Corporation	State Government	22 Oct 98

### Statement of significance:

Civic Railway Workshops is one of the outstanding industrial workshop sites in the State and an excellent example of a Victorian workshop group that display continuity, excellence in design and execution and add to the townscape of Newcastle as well as play an important role in the history of the railway in the area. The whole group is of highest significance in the State. Construction of



workshops in Newcastle was brought about for two reasons: separation of the Great Northern lines from the main system from 1857 to 1889; and in recognition of the exclusive facilities and rolling stock required to handle coal traffic.

The Lee Wharf site has the potential to contain historical archaeological remains, including remains of State significance. Some may lie within the boundary of the State Heritage Register Listing. Others may lay outside that boundary. (Archaeology Significance taken from Godden Mackay Logan, May 2003)

**Date significance updated:** 23 Jun 04

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.*

## Description

<b>Designer/Maker:</b>	John Whitton
<b>Builder/Maker:</b>	Dart & Parkhill (Boiler House & Machine Shop)
<b>Construction years:</b>	1874-1886
<b>Physical description:</b>	Divisional Engineer's Office - constructed in 1886 is a two-storied, rendered and painted brick building at the western end of the group. It has a corrugated-iron awning around three sides and a corrugated iron double-gabled roof with rendered brick chimneys along both ridges. Architect was John Whitton.
<b>Physical condition and/or Archaeological potential:</b>	<p>Boiler House and Machine Shop is directly to the east and adjoins the Divisional Engineer's Office. Built in 1874-75 (Architect John Whitton, Builder: Dart &amp; Parkhill) it is the oldest building in the group. A single-storey brick building with corrugated gabled roof and arched windows set within a series of recessed bays along both facades. A small brick gabled wing has been added to its northern facade.</p> <p>Blacksmith's Shop and Wheel Shop - constructed between 1880 -1882, it is located on the southern side of Workshop Way. The building originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). Brick walls and corrugated-iron roofing with a series of arched windows along the length of the northern and southern sides. Five metres in height, its double-gabled roof is connected along the centre line with a box gutter.</p> <p>The Boiler House and Machine Shop has been restored and is used by the Hunter Valley Wine Society.</p> <p>Blacksmith's Shop and Wheel Shop - the building has recently been restored and is currently tenanted.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, the remnants of an original stone wall associated with the reclamation for Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p>In terms of archaeological potential, the Honeysuckle Railway Workshops contain industrial remains including extensive footings of demolished brick buildings, underground pipes for air, water, gas, hydraulic oil and artefacts related to use and occupation of the area as a railway facility for over 100 years.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, an innovative and supposedly rat-proof system first used at Walsh Bay, Sydney and then used here. The remnants of an original stone wall associated with reclamation for the Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p><b>Date condition updated:</b>29 Sep 04</p>
<b>Modifications and dates:</b>	Boiler House and Machine Shop - originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). A small brick gabled wing has been added to its northern facade.
<b>Current use:</b>	Shopping precinct
<b>Former use:</b>	Railway Workshops

## History


<b>Historical notes:</b>	<p>The site's history has been summarised according to significant events (Umwelt, August 2003):</p> <p>c.1840- purchase of 38 acres at Honeysuckle Point for the erection of a Church School by the trustees on behalf of Anglican Bishop Broughton - 'The Bishop's Settlement'</p> <p>1848 - the Dangar family established Newcastle's first cannery on the harbour foreshore, east of the Bishop's Settlement</p> <p>1848 - 1851- Bishop's settlement subdivided into 42 lots and 40 of these were occupied by tenants. Some built houses, others commercial premises, some were operated as shipbuilding yards and industrial plants.</p> <p>1853 - 1855 the Hunter River Railway Company was formed to build a line between Newcastle and Maitland. Honeysuckle Point chosen as the eastern terminus for the railway. The company was taken over by the State government due to its poor financial situation.</p> <p>1856 -1895 Railway construction from Honeysuckle to Hexham. Construction of 33 buildings on Bishop's Settlement. Workshops opened at Honeysuckle, including loco shed, carriage repair shed, carriage painting shop, machine shop and blacksmith's shop.</p> <p>1908 -1910 - construction of timber wharves along the reclaimed foreshore. The Monier Sea Wall was completed, an innovative structural material which previously had only been used at Walsh Bay in Sydney.</p> <p>1910 - 1952 More buildings were constructed, including the Carpenter's Shop, a large foundry, commencement of building at Chullora Railway Workshops (c.1920), signalling the likely scale-back of operations at the Honeysuckle workshops.</p> <p>1958 - The foundry was closed and its operations transferred to Chullora in Sydney</p> <p>1970s.- Most buildings were demolished in the Per Way Workshops, leaving only the Store, the Carpenter's and Plumbers' Shops and the Divisional Engineer's Office</p>
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## Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Commerce-Activities relating to buying, selling and exchanging goods and services	Developing discrete retail and commercial areas-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building and maintaining jetties, wharves and docks-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Public tramline system-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Engineering the public railway system-
8. Culture-Developing cultural institutions and ways of life	Religion-Activities associated with particular systems of faith and worship	Providing schools and education-

## Assessment of significance

**SHR Criteria c)** [Aesthetic significance] The group of workshops is the only remaining example that demonstrates the design principles and technology applied to small railway workshop buildings in the 1870s and 1880s in Southeastern Australia.

**Assessment criteria:** Items are assessed against the  **State Heritage Register (SHR) Criteria** to determine the level of significance. Refer to the Listings below for the level of statutory protection.

## Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977 Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <ol style="list-style-type: none"> <li>revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57 (2) and published in the Government Gazette on 22 February 2008; and</li> <li>grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.</li> </ol> <p>FRANK SARTOR Minister for Planning Sydney, 11 July 2008</p> <p>To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.</p>	Sep 5 2008

 **Standard exemptions** for works requiring Heritage Council approval

## Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		00956	02 Apr 99	27	1546
Heritage Act - s.170 NSW State agency heritage register					
Local Environmental Plan			08 Aug 03	124	
National Trust of Australia register		4475			

## References, internet links & images

Type	Author	Year	Title	Internet Links
Tourism		2007	Honeysuckle Precinct	<a href="#">View detail</a> 
Tourism	Attraction Homepage	2007	Honeysuckle Precinct	<a href="#">View detail</a> 
Written	Insite Heritage	2007	Archaeological Investigations of Former Perway Store, Honeysuckle Precinct.	
Written	Paul Rheinberger, Umwelt	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle, NSW	
Written	Paul Rheinberger, Umwelt Environmental Consultants	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle NSW	
Written	Susan Duyker, Andrew Sneddon and Mark Dunn, Godden Mackay Logan	2003	Lee Wharf Newcastle Heritage Impact Statement	

Note: internet links may be to web pages, documents or images.

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**Database number:** 5044977  
**File number:** S90/05371;S94/01096;H05/00083

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## Civic Railway Workshops

### Item details

**Name of item:** Civic Railway Workshops  
**Other name/s:** Honeysuckle; Industrial Archaeological Site; Newcastle Mus  
**Type of item:** Complex / Group  
**Group/Collection:** Transport - Rail  
**Category:** Railway  
**Location:** Lat: -32.9259277396 Long: 151.7713519130  
**Primary address:** Great Northern Railway, Newcastle, NSW 2300  
**Parish:** Newcastle  
**County:** Northumberland  
**Local govt. area:** Newcastle

### Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	511		DP	1030264
PART LOT	5001		DP	1049339
PART LOT	1		DP	1111305
LOT	2		DP	1111305
LOT	3		DP	1111305
LOT	4		DP	1111305
LOT	5		DP	1111305
LOT	9		DP	1128824
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			CP/SP	71834
			CP/SP	71866
PART LOT	2		DP	856783
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PART LOT	3		DP	883474
PART LOT	4		DP	883474
PART LOT	5		DP	883474
PART LOT	7		DP	883474
PART LOT	9		DP	883474

### Boundary:

The listing boundary is formed by Merewether Street to the east, the south, Lee Wharf Road to the north and a line crossing the site approx to the west of the last building.

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
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Great Northern Railway	Newcastle	Newcastle	Newcastle	Northumberland	Primary Address
Lee Wharf Road	Newcastle	Newcastle			Alternate Address
Honeysuckle Drive	Newcastle	Newcastle			Alternate Address
Merewether Street	Newcastle	Newcastle			Alternate Address

### Owner/s

Organisation Name	Owner Category	Date Ownership Updated
Honeysuckle Development Corporation	State Government	22 Oct 98

### Statement of significance:

Civic Railway Workshops is one of the outstanding industrial workshop sites in the State and an excellent example of a Victorian workshop group that display continuity, excellence in design and execution and add to the townscape of Newcastle as well as play an important role in the history of the railway in the area. The whole group is of highest significance in the State. Construction of workshops in Newcastle was brought about for two reasons: separation of the Great Northern lines from the main system from 1857 to 1889; and in recognition of the exclusive facilities and rolling stock required to handle coal traffic.

The Lee Wharf site has the potential to contain historical archaeological remains, including remains of State significance. Some may lie within the boundary of the State Heritage Register Listing. Others may lay outside that boundary. (Archaeology Significance taken from Godden Mackay Logan, May 2003)

**Date significance updated:** 23 Jun 04

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.*

### Description

**Designer/Maker:** John Whitton

**Builder/Maker:** Dart & Parkhill (Boiler House & Machine Shop)

**Construction years:** 1874-1886

**Physical description:** Divisional Engineer's Office - constructed in 1886 is a two-storied, rendered and painted brick building at the western end of the group. It has a corrugated-iron awning around three sides and a corrugated iron double-gabled roof with rendered brick chimneys along both ridges. Architect was John Whitton.

Boiler House and Machine Shop is directly to the east and adjoins the Divisional Engineer's Office. Built in 1874-75 (Architect John Whitton, Builder: Dart & Parkhill) it is the oldest building in the group. A single-storey brick building with corrugated gabled roof and arched windows set within a series of recessed bays along both facades. A small brick gabled wing has been added to its northern facade.

Blacksmith's Shop and Wheel Shop - constructed between 1880-1882, it is located on the southern side of Workshop Way. The building originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). Brick walls and corrugated-iron roofing with a series of arched windows along the length of the northern and southern sides. Five metres in height, its double-gabled roof is connected along the centre line with a box gutter.

<b>Physical condition and/or Archaeological potential:</b>	<p>The Boiler House and Machine Shop has been restored and is used by the Hunter Valley Wine Society.</p> <p>Blacksmith's Shop and Wheel Shop - the building has recently been restored and is currently tenanted.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, the remnants of an original stone wall associated with the reclamation for Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p>In terms of archaeological potential, the Honeysuckle Railway Workshops contain industrial remains including extensive footings of demolished brick buildings, underground pipes for air, water, gas, hydraulic oil and artefacts related to use and occupation of the area as a railway facility for over 100 years.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, an innovative and supposedly rat-proof system first used at Walsh Bay, Sydney and then used here. The remnants of an original stone wall associated with reclamation for the Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p><b>Date condition updated:</b> 29 Sep 04</p>
<b>Modifications and dates:</b>	<p>Boiler House and Machine Shop - originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). A small brick gabled wing has been added to its northern facade.</p>

**Current use:** Shopping precinct

**Former use:** Railway Workshops

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## History

<b>Historical notes:</b>	<p>The site's history has been summarised according to significant events (Umwelt, August 2003):</p> <p>c.1840- purchase of 38 acres at Honeysuckle Point for the erection of a Church School by the trustees on behalf of Anglican Bishop Broughton - 'The Bishop's Settlement'</p> <p>1848 - the Dangar family established Newcastle's first cannery on the harbour foreshore, east of the Bishop's Settlement</p> <p>1848 - 1851- Bishop's settlement subdivided into 42 lots and 40 of these were occupied by tenants. Some built houses, others commercial premises, some were operated as shipbuilding yards and industrial plants.</p> <p>1853 - 1855 the Hunter River Railway Company was formed to build a line between Newcastle and Maitland. Honeysuckle Point chosen as the eastern terminus for the railway. The company was taken over by the State government due to its poor financial situation.</p> <p>1856 -1895 Railway construction from Honeysuckle to Hexham. Construction of 33 buildings on Bishop's Settlement. Workshops opened at Honeysuckle, including loco shed, carriage repair shed, carriage painting shop, machine shop and blacksmith's shop.</p> <p>1908 -1910 - construction of timber wharves along the reclaimed foreshore. The Monier Sea Wall was completed, an innovative structural material which previously had only been used at Walsh Bay in Sydney.</p> <p>1910 - 1952 More buildings were constructed, including the Carpenter's Shop, a large foundry, commencement of building at Chullora Railway Workshops (c.1920), signalling the likely scale-back of operations at the Honeysuckle workshops.</p>
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1958 - The foundry was closed and its operations transferred to Chullora in Sydney

1970s.- Most buildings were demolished in the Per Way Workshops, leaving only the Store, the Carpenter's and Plumbers' Shops and the Divisional Engineer's Office

### Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Commerce-Activities relating to buying, selling and exchanging goods and services	Developing discrete retail and commercial areas-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building and maintaining jetties, wharves and docks-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Public tramline system-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Engineering the public railway system-
8. Culture-Developing cultural institutions and ways of life	Religion-Activities associated with particular systems of faith and worship	Providing schools and education-

### Assessment of significance

**SHR Criteria c)** [Aesthetic significance] The group of workshops is the only remaining example that demonstrates the design principles and technology applied to small railway workshop buildings in the 1870s and 1880s in Southeastern Australia.

**Assessment criteria:** Items are assessed against the [State Heritage Register \(SHR\) Criteria](#) to determine the level of significance. Refer to the Listings below for the level of statutory protection.

### Recommended management:

#### Recommendations

Management Category	Description	Date Updated
Recommended Management	Produce a Conservation Management Plan (CMP)	
Recommended Management	Prepare a maintenance schedule or guidelines	

### Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977</p> <p>Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <p>1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published</p>	Sep 5 2008

in the Government Gazette on 22 February 2008; and

2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.

FRANK SARTOR  
Minister for Planning  
Sydney, 11 July 2008

To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.

 [Standard exemptions](#) for works requiring Heritage Council approval

### Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		00956	02 Apr 99	27	1546
Heritage Act - s.170 NSW State agency heritage register					
Local Environmental Plan			08 Aug 03	124	
National Trust of Australia register		4475			

### References, internet links & images

Type	Author	Year	Title	Internet Links
Tourism		2007	Honeysuckle Precinct	<a href="#">View detail</a> 
Tourism	Attraction Homepage	2007	Honeysuckle Precinct	<a href="#">View detail</a> 
Written	Insite Heritage	2007	Archaeological Investigations of Former Perway Store, Honeysuckle Precinct.	
Written	Paul Rheinberger, Umwelt	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle, NSW	
Written	Paul Rheinberger, Umwelt Environmental Consultants	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle NSW	
Written	Susan Duyker, Andrew Sneddon and Mark Dunn, Godden Mackay Logan	2003	Lee Wharf Newcastle Heritage Impact Statement	

Note: internet links may be to web pages, documents or images.

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## Tramway Substation (Former)

### Item details

**Name of item:** Tramway Substation (Former)  
**Type of item:** Built  
**Group/Collection:** Transport - Rail  
**Category:** Tramway Station/Waiting shed  
**Primary address:** 342 Hunter Street, Newcastle, NSW 2300  
**Local govt. area:** Newcastle

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
342 Hunter Street	Newcastle	Newcastle			Primary Address

### Statement of significance:

Historically important due to tramway. Probably constructed when tramway was electrified in 1923. , Important townscape element being one of few on north side of street in this vicinity. The interiors are of significance.

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.*

### Description

**Physical description:** Two storey rendered brick building,

**Current use:** Credit Union

### Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan		I416	15 Jun 12	64	
Heritage study					

### Study details

Title	Year	Number	Author	Inspected by	Guidelines used
Newcastle Heritage Study	1990	183	Unknown		Yes

### References, internet links & images

None

Note: internet links may be to web pages, documents or images.



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**File number:** 183

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## Newcastle Railway Station additional group

### Item details

**Name of item:** Newcastle Railway Station additional group  
**Type of item:** Built  
**Group/Collection:** Transport - Rail  
**Category:** Railway Platform/ Station  
**Location:** Lat: -32.9264182486 Long: 151.7840660280  
**Primary address:** Great Northern Railway, Newcastle, NSW 2300  
**Local govt. area:** Newcastle

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
Great Northern Railway	Newcastle	Newcastle			Primary Address

### Owner/s

Organisation Name	Owner Category	Date Ownership Updated
RailCorp	State Government	05 Nov 98

### Statement of significance:

The listing boundary for the station is the station precinct bounded by Scott St, Watt St and Wharf Rd extending along the line to include the signal box area. The residence boundary is the land on which it stands in Scott St.

**Date significance updated:** 19 Feb 03

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.*

### Description

**Construction years:** 1878-1892

**Physical description:** The complex is united structurally by platform verandahs, supported on elaborate brackets, and visually by the common motifs of semi-circular windows, four-panel doors with overhead fanlights, frieze under eaves and the stone quoins/pilasters which define the corners of the buildings. The overall decorative effect is of a restrained Renaissance classicism resulting from the flat detailing. The buildings on either side of the Booking Hall have raised skylights which make interesting variations in the roofline of the complex. The one to the west on the roadside however, was converted into a three storey hotel for a time and this addition has altered the original symmetry (Kerr/Connors 1975).

**Modifications and dates:**  
 1878 - built  
 1880 - extension and completion of platform 2  
 1892 - addition of canopy, new parcels office and stationmasters office  
 1897 - major renovations  
 1923-1929 - more development  
 1940s-1950s - minor changes  
 1980 - last phase of works

**Current use:** railway station, bus interchange

**Former use:** railway station

## History

### Historical notes:

The earliest railway structures on the site were built in the 1850s to serve the original isolated Hunter valley railway. With the connection of this system to Sydney came the need for a new terminus.

Under the supervision of John Whitton, Engineer in Chief of the NSW Government Railways, the new station was erected. The original building was constructed in 1878 and first used in December of that year. It consisted of a central two storey building with single storey pavilions at either end. The ground floor housed a ticket office, waiting room, ladies room, parcels office and a stationmaster's office with administrative offices on the first floor. The pavilions on each end of the main building housed the men's lavatories and porter's accommodation. This new station was designed with a layout typical of NSW railway stations at that time (although was unique in being two-storey) and forms the basis of the station as it exists today.

By the late 19th century the popularity of rail travel led to the extension and completion of Platform 2 in 1880, with the subsequent addition of a canopy in 1892 as well as a new parcels office and stationmaster's office. The areas previously occupied by these offices were converted into a dining room and bar. In 1897 a major renovations phase resulted in the demolition of the western pavilion and construction of the two storey kitchen and staff block as well as the original single storey dining room used as a Railway Refreshment Room (RRR), the last major RRR built in the state. In addition a new single storey building was erected.

The last major phase of development occurred between 1923 and 1929. It was intended to construct a new building to improve accommodation at the station. This plan did not eventuate, but rather the replacement of the original Scott Street verandah by the current enclosed brick structure and the extension of the single dining room to three storeys. Most of the internal partitions and staircases were constructed during this time. The first floor of the 1878 building was converted to staff bedrooms, and a scullery and change rooms were added.

Further minor changes were made during the 1940s and 1950s and the most recent major works occurred in 1980. (EJE Architecture 1996)

## Historic themes

<b>Australian theme (abbrev)</b>	<b>New South Wales theme</b>	<b>Local theme</b>
3. Economy- Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building the railway network-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	20th Century infrastructure-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	19th Century Infrastructure-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation, and the administration of public programs - includes both principled and corrupt activities.	Building and operating public infrastructure-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation,	Developing roles for government - building

and the administration of public programs - includes both principled and corrupt activities.	and administering rail networks-
----------------------------------------------------------------------------------------------	----------------------------------

### Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977 Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <p>1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published in the Government Gazette on 22 February 2008; and</p> <p>2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.</p> <p>FRANK SARTOR Minister for Planning Sydney, 11 July 2008</p> <p>To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.</p>	Sep 5 2008

 [Standard exemptions](#) for works requiring Heritage Council approval

### Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		01212	02 Apr 99	27	1546
Heritage Act - s.170 NSW State agency heritage register					
Local Environmental Plan			03 Jul 92		
National Trust of Australia register			22 Jul 75		
Register of the National Estate			21 Oct 80		

### References, internet links & images

None

Note: internet links may be to web pages, documents or images.



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## Newcastle Railway Station

### Item details

**Name of item:** Newcastle Railway Station  
**Type of item:** Built  
**Group/Collection:** Transport - Rail  
**Category:** Railway Platform/ Station  
**Location:** Lat: -32.9266711583 Long: 151.7838452270  
**Primary address:** Great Northern Railway, Newcastle, NSW 2300  
**Parish:** Newcastle  
**County:** Northumberland  
**Local govt. area:** Newcastle

### Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	22		DP	1009735

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
Great Northern Railway	Newcastle	Newcastle	Newcastle	Northumberland	Primary Address
Scott Street	Newcastle	Newcastle	Newcastle	Northumberland	Alternate Address

### Owner/s

Organisation Name	Owner Category	Date Ownership Updated
RailCorp	State Government	22 Aug 97
RailCorp	State Government	26 Mar 99

### Statement of significance:

Historically the building reflects the phases of development of the state's second most important city over almost a century and a half, symbolises the expansion of rail into regional NSW and the completion of the major link in the opening up of the north of the state to rail travel.

Aesthetically, the station is a fine example of the station type built for larger centres in NSW. Socially the buildings have a unique place in the social activity of Novocastrians over nearly a century and a half. Scientifically the site has potential to reveal information which could provide greater insight into the changing face of rail travel to the state's second major city, the changing face of its relationship with the harbour and the Honeysuckle Workshops and the importance in the development of gas lighting in Newcastle City. (EJE Architecture 1996)

**Date significance updated:** 30 Sep 97

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.*

### Description

**Designer/Maker:** John Whitton  
1878-1929

**Construction years:**

**Physical description:** Built as a symmetrical row of five brick buildings (one and two storeys). The central booking hall is topped by a lantern and features cornered pavilions. The complex is united structurally by platform verandahs, supported on elaborate brackets, and visually by the common motifs of semi-circular windows, four-panel doors with overhead fanlights, frieze under eaves and the stone quoins/pilasters which define the corners of the buildings. The overall decorative effect is of a restrained Renaissance classicism resulting from the flat detailing. The buildings on either side of the Booking Hall have raised skylights which make interesting variations in the roofline of the complex. The one to the west on the roadside however, was converted into a three storey hotel for a time and this addition has altered the original symmetry (Kerr/Connors 1975).

**Physical condition and/or** Physical condition is good. Archaeological potential is low.

**Archaeological potential:**

**Date condition updated:**30 Sep 97

**Modifications and dates:** 1878 - built  
1880 - extension and completion of platform 2  
1892 - addition of canopy, new parcels office and stationmasters office  
1897 - major renovations  
1923-1929 - more development  
1940s-1950s - minor changes  
1980 - last phase of works

**Current use:**Railway Station

**Former use:** Railway Station

**History**

**Historical notes:** The earliest railway structures on the site were built in the 1850s to serve the original isolated Hunter valley railway. With the connection of this system to Sydney came the need for a new terminus.

Under the supervision of John Whitton, Engineer in Chief of the NSW Government Railways, the new station was erected. The original building was constructed in 1878 and first used in December of that year. It consisted of a central two storey building with single storey pavilions at either end. The ground floor housed a ticket office, waiting room, ladies room, parcels office and a stationmaster's office with administrative offices on the first floor. The pavilions on each end of the main building housed the men's lavatories and porter's accommodation. This new station was designed with a layout typical of NSW railway stations at that time (although was unique in being two-storey) and forms the basis of the station as it exists today.

By the late 19th century the popularity of rail travel led to the extension and completion of Platform 2 in 1880, with the subsequent addition of a canopy in 1892 as well as a new parcels office and stationmaster's office. The areas previously occupied by these offices were converted into a dining room and bar. In 1897 a major renovations phase resulted in the demolition of the western pavilion and construction of the two storey kitchen and staff block as well as the original single storey dining room used as a Railway Refreshment Room (RRR), the last major RRR built in the state. In addition a new single storey building was erected.

The last major phase of development occurred between 1923 and 1929. It was intended to construct a new building to improve accommodation at the station. This plan did not eventuate, but rather the replacement of the original Scott Street verandah by the current enclosed brick structure and the extension of the single dining room to three storeys. Most of the internal partitions and staircases were constructed during this time. The first floor of the 1878



**Appendix B**

Traffic Impact Assessment



## **UrbanGrowth NSW**

### Newcastle Urban Transformation and Transport Project Rezoning of surplus rail corridor lands Traffic Impact Assessment

March 2017

# Executive summary

This report has examined the traffic implications of the proposed rezoning of the surplus rail corridor through the Newcastle CBD. This report is subject to, and must be read in conjunction with, the limitations and qualifications contained throughout the Report.

The proposed rezoning would provide for public recreation, a major attraction and several mixed use sites. Land that is the subject of the rezoning application includes the assumed potential for 400-500 residential units, and up to 5,000 m<sup>2</sup> Gross Floor Area of non-residential land use (most likely for employment-generating uses such as office and/or retail). Development on three adjacent and related sites, which do not form part of the rezoning application, has also been considered in this assessment.

## Traffic impacts

Conservative estimates of expected traffic generation have been adopted, based on rates published by Roads and Maritime Services for a location in suburban Newcastle, and on the parking requirements outlined in the Newcastle Development Control Plan 2012. Daily traffic movements of almost 3,300 (2-way) have been estimated. However, with good access to the Newcastle CBD, light rail services, bus services and active transport connections, traffic generation from the proposed development sites will be substantially less than this conservative estimate.

Traffic modelling of the assumed traffic generation has been undertaken, using the traffic model developed for TfNSW to assess the traffic impacts of the Newcastle Light Rail project. The model was developed in collaboration between TfNSW, Roads and Maritime Services, Newcastle City Council and GHD. The base case models assume that the Light Rail is in place and operational.

The modelling shows that for forecast peak hour traffic conditions in 2018 and 2028 the additional traffic generated by the proposed rezoning could be accommodated within the road network, without any modifications or mitigation works beyond those already proposed by TfNSW in response to the Light Rail project.

## Parking impacts

A Parking Strategy, developed by TfNSW, has considered the cumulative impacts of the Light Rail project and various known developments sites on public parking supply. A net loss of 407 spaces is expected, which would increase overall peak occupancy to 81% with current demand levels. The Strategy recommends demand management, rather than demand satisfaction, as the most appropriate approach into the future. The Parking Strategy concludes that the overall net loss of parking supply is manageable in the context of broader objectives of parking demand management and increased public transport use.

## Pedestrian impacts

The proposal would maintain and enhance pedestrian connectivity between the CBD and the waterfront. The proposed development sites will enhance the public open space surrounding each site, with retail land uses activating building frontages to provide increased opportunity for movement, recreation and service transactions.

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# 1. Introduction

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1-1).



**Figure 1-1 Rezoning study area**

Source: Elton Consulting

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500 million commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

The transformation element of the Program aims to bring people back to the city centre by strengthening connections between the city and the waterfront, creating employment opportunities, providing more public space and amenity, and delivering better transport.

The proposed rezoning of the rail corridor land forms a part of the delivery of urban transformation initiatives, comprising a package of transport, built form and public domain improvements.

## 1.1 Purpose of this report

This report outlines the potential traffic impacts arising from the proposed rezoning of land in the Newcastle City Centre, as part of the Program. It details the process used to undertake the assessment, including traffic generation and distribution, traffic modelling and reporting of model outputs. Other traffic impacts, including parking, site access, and pedestrian and bicycle issues, are also assessed.

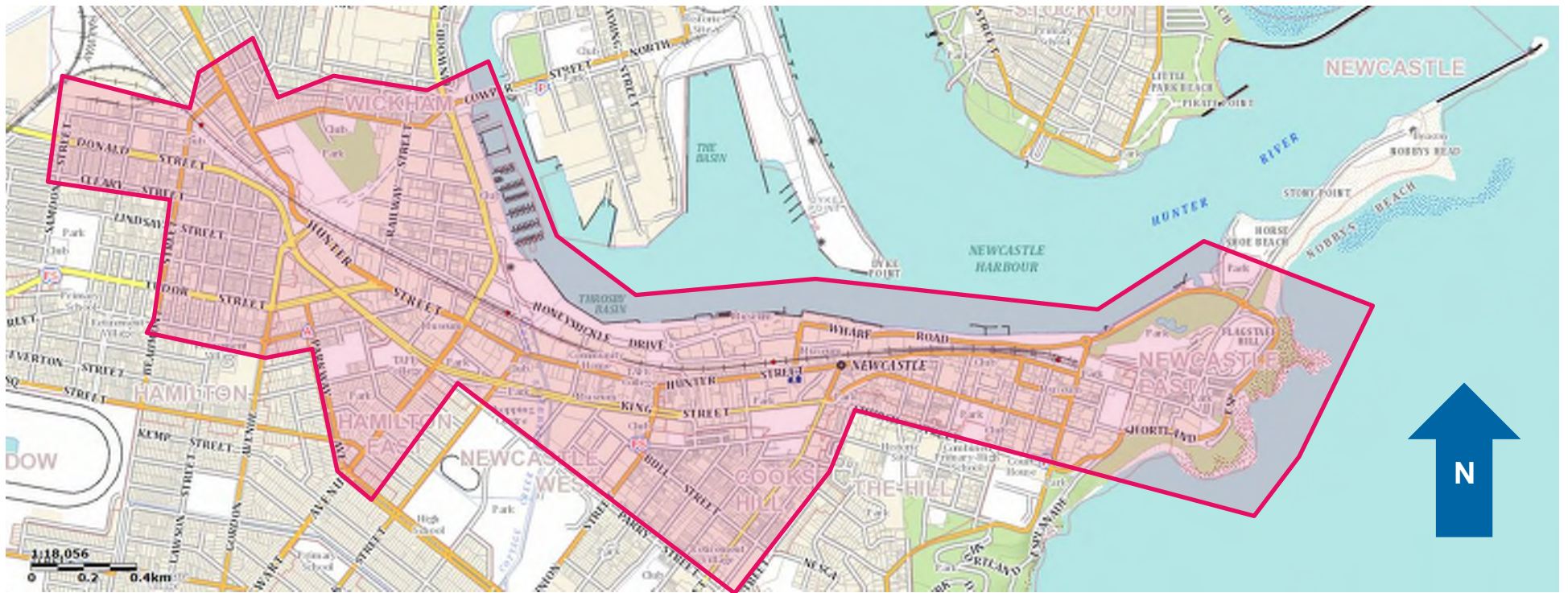
Any future development of the rezoned land will be subject to further detailed investigation and assessment through the Development Application process.



## **1.2 Basis of assessment**

The basis of the assessment for this project is the Newcastle City Centre Microsimulation Traffic Model, which was used by Transport for New South Wales (TfNSW) to model the impacts of the Newcastle Light Rail on the road network of the Newcastle CBD. This model was developed in collaboration between TfNSW, Roads and Maritime Services, Newcastle City Council and GHD.

The development of the model is detailed in Section 5.1. The spatial coverage of the model is shown in Figure 1-2.



**Figure 1-2 Study area for the Newcastle light rail traffic modelling**

Source: <https://maps.six.nsw.gov.au/>

## 2. Newcastle urban transformation and transportation project

### 2.1 Newcastle urban transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment.
- Civic: the government, business and cultural hub of the city.
- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek).

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and Newcastle City Council (Council).

### 2.2 Proposed rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

#### 2.2.1 Vision

The Program vision has been informed by feedback from the community, Council, government agencies and urban renewal experts.

*Our vision is an activated city centre and waterfront that attracts people, new enterprises and tourism. Overtime, we see great opportunities to build on the strengths of the city centre to encourage innovative and enterprising industries to survive. In the longer term, we see an opportunity to strengthen Newcastle's position on the regional, national and international stage, with a view to stronger ties with Asia Pacific.*

*UrbanGrowth NSW, 2015*

#### 2.2.2 Program objectives

The Program is underpinned by five objectives which will drive successful urban transformation:

- **Bring people back to the city centre**
  - Re-imagine the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain, that will attract people.
- **Connect the city to its waterfront**
  - Unite the city centre and the harbour to improve the experience of being in and moving around the city.

- **Help grow new jobs in the city centre**
  - Invest in initiatives that create jobs, with a focus on innovative industries, higher education and initiatives to encourage a range of businesses to the city centre.
- **Create great places linked to new transport**
  - Integrate urban transformation with new, efficient transport to activate Hunter and Scott Streets and return them to thriving main streets.
- **Creating economically sustainable public domain and community assets**
  - Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future.
- **Preserve and enhance heritage and culture**
  - Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities.

### 2.2.3 Urban transformation concept plan

Surplus rail corridor land runs through the East End and Civic city centre precincts (established by NURS). Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan ('concept plan') has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas. The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 2-1) includes five key 'key moves', two that relate to the Civic precinct and three of which relate to the East End.

#### *Civic link (Civic)*

This area is the civic heart of Newcastle and includes some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre and Newcastle Museum. Current investment in the area includes the law courts development and the University of Newcastle NeW Space campus – both of which are under construction.

The focus of this key 'move' is to leverage best value from new investments by creating new open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

- **Civic Green.** Creating a new civic focused public space linking Hunter Street to the Newcastle Museum that will provide direct visual and physical connection from Wheeler Place to the harbour, activate light rail on Hunter Street and meet the needs of the incoming legal and student populations
- **Built form improvements.** Sensibly scaled mixed use development that forms part of the Honeysuckle development.

### ***Darby Plaza (Civic)***

Darby Street is Newcastle's premier 'eat street', offering a mix of shops, cafes, restaurants and night life. At present Darby Street ends at the intersection with Hunter Street, and this key 'move' seeks to create a new node of activity and linkage through to the harbour that complements the delivery of light rail.

- **Darby Plaza.** A new community focused public space including provision of new walking and cycling facilities from Hunter Street to the harbour.
- **Built form improvements.** Zoning of rail corridor land between Merewether Street and Argyle Street to allow for future mixed use development in conjunction with surrounding lands in the longer term.

### ***Hunter Street revitalisation (East End)***

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local business. Hunter Street has experienced decline in recent years, and the opportunity exists to reinstate Hunter Street as the regions premier main street that complements the delivery of light rail.

- **Built form improvements.** Sensibly scaled mixed use development consistent with the adjoining land uses to create an activated street with 'two edges', celebrate heritage and create new linkages from Hunter Street to the waterfront, provide activation around light rail stops and improve walking and cycling facilities.

### ***Entertainment precinct (East End)***

This key 'move' aims to create a place where people can come to play, relax and reconnect with the harbour in a new public space stretching from Scott Street to the waterfront incorporating a new connection from Market Street to Queens Wharf. This key 'move' will assist to activate the area with a variety of activities to create an exciting place for the East End.

- **Recreational opportunities.** This precinct will incorporate the adaptive re-use of the signal box and provision of recreation opportunities for all ages and abilities. Public domain will be designed to provide a thoughtful series of character areas and experiences as one walks the length. The area will also provide opportunities for viewing and interpretation of heritage character that respect the unique qualities of place.

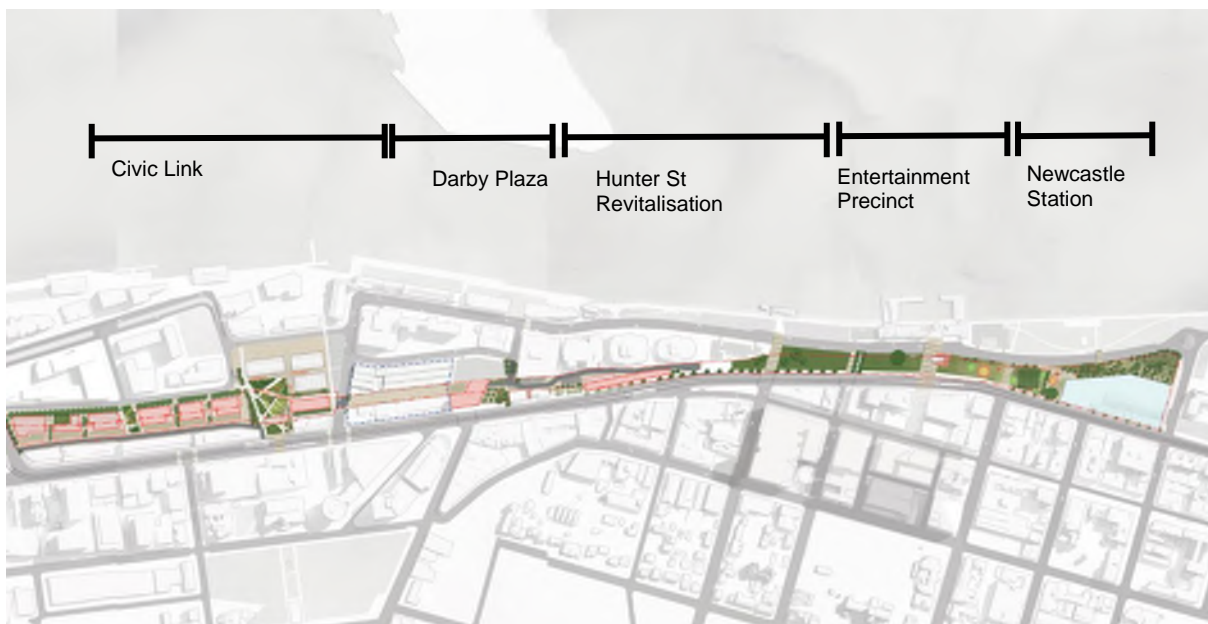
### ***Newcastle Station (East End)***

Newcastle Railway Station is proposed to be re-purposed into a hallmark destination and focal point for the new East End, accommodating enterprises and activities that attract visitors and stimulate the economy.

Refurbishment would fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, retail, leisure and commercial uses.

## 2.2.4 Rezoning concept plan

The proposed rezoning of the surplus rail corridor lands is the focus of this report. Figure 2-1 defines the site rezoning area within the broader program planning outcomes.



Source: Elton Consulting

### Figure 2-1 Rezoning concept plan

Amendments to the NLEP are required to deliver part of the concept plan. The proposed amendments are on surplus rail corridor land only.

Necessary amendments to the NLEP include:

- Amend the Land Use Zoning Map to introduce new B4 Mixed Use, SP3 Tourism and RE1 Public Recreation zones.
- Amend the Height of Building and Floor Space Ratio maps to facilitate development on select parcels of land.

The concept plan will also form the basis for updates to the Newcastle City Centre Development Control Plan design controls to guide development and public domain works for rezoning sites.

## 2.2.5 Proposed rezoning

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan. The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general the proposed rezoning will provide a mix of uses with between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000 m<sup>2</sup> of commercial, restaurant and other entertainment uses, as described in Table 2.1, and excluding any education or associated uses. An assumed development mix, as advised by Elton Consulting and used to assess the traffic generation for this assessment, is detailed in Section 4.2.

Proposed maximum building height and floor space ratio controls respect existing controls that apply to surrounding land.

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel

has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

The location of the proposed rezoning parcels is indicated in Figure 2-2 below.



Source: Hassell

**Figure 2-2 Rezoning explanatory map - Parcels**

**Table 2.1 Sites for rezoning – Proposed development summary**

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m <sup>2</sup>	Now parcel 01	3,370 m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	30m
Parcel 02 B4 Mixed Use 408 m <sup>2</sup>	Now parcel 02	408 m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	30m
Parcel 03 B4 Mixed Use 3,146 m <sup>2</sup>	Now parcel 03	1,869 m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	30m
	Now parcel 04	900 m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	24m
Parcel 04 RE1 Public Recreation 2,464 m <sup>2</sup>	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839 m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603 m <sup>2</sup>	Now parcel 06	1,604 m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	18m
Parcel 06 B4 Mixed Use 295 m <sup>2</sup>	Now parcel 07	295 m <sup>2</sup>	B4 Mixed Use (road)	FSR – 2.5:1	30m
Parcel 07 B4 Mixed Use 2,040 m <sup>2</sup>	Now parcel 08	2,040 m <sup>2</sup>	B4 Mixed Use	FSR – 2.5:1	30m
Parcel 08 B4 Mixed Use 988 m <sup>2</sup>	Now parcel 09	988 m <sup>2</sup>	B4 Mixed Use	FSR – 4:1	24m
Parcel 09 B4 Mixed Use 467 m <sup>2</sup>	Now parcel 10	467 m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 10 SP2 Infrastructure 386 m <sup>2</sup>	Now parcel 11	386 m <sup>2</sup>	SP2 Infrastructure	N/A	N/A



Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 11 B4 Mixed Use 4,542 m <sup>2</sup>	Now parcel 12	4,542 m <sup>2</sup>	B4 Mixed Use	FSR – 1.5:1	14m
Parcel 12 B4 Mixed Use 1,544 m <sup>2</sup>	Now parcel 13 (and has been reduced in size)	659 m <sup>2</sup>	SP2 Infrastructure	N/A	N/A
Parcel 13 RE1 Public Recreation 303 m <sup>2</sup>	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251 m <sup>2</sup>					
Parcel 15 RE1 Public Recreation 7,713 m <sup>2</sup>					
Parcel 16 SP3 Tourist 10,698 m <sup>2</sup>	Now parcel 15	10,698m <sup>2</sup>	SP3 Tourist	FSR – 1.5:1	10-15m

## 2.3 Newcastle light rail

The NSW Government is introducing light rail to Newcastle as part of a broader strategy to revitalise the Newcastle city centre. Light rail will travel from a new transport interchange at Wickham, through the Newcastle city centre to Pacific Park.

The truncation of heavy rail services at Wickham and the building of a new interchange are the first steps in delivering an urban renewal and transport solution for Newcastle.

Transport for NSW has been working closely with UrbanGrowth NSW, Newcastle City Council and Roads and Maritime Services in planning for light rail. Light rail will help improve public transport and access, reunite the city centre with its waterfront and improve the attractiveness of public spaces. The light rail route will travel east from the new transport interchange at Wickham along the existing rail corridor to Worth Place, before moving south to connect with Hunter Street and Scott Street before reaching Pacific Park, near the beach.

Initial geotechnical investigations have been completed and detailed design and environmental planning is well underway.

Transport for NSW and a combined team of Newcastle-based experts have prepared an environmental assessment for the Newcastle Light Rail project. The environmental assessment studies include heritage, visual and urban design, noise and vibration, social impacts, air quality and traffic, and access.

The Review of Environmental Factors has been approved and implementation has commenced.

### 2.3.1 Light rail alignment

The proposed alignment for the light rail is shown in Figure 2-3.

The six light rail stops on this alignment are located at:

- Wickham west of Stewart Avenue (terminus)
- Honeysuckle at Kuwami Place in the existing railway corridor
- Civic in Hunter Street
- Crown Street in Hunter Street
- Queens Wharf in Scott Street at Market Street
- Pacific Park on the south side of Scott Street between Pacific Street and Telford Street (terminus).

#### *Light Rail services*

The Light Rail service will operate with 10 minute headways in each direction, with travel times between Wickham and Pacific Park in the order of 12 minutes.

The Light Rail terminus is on the western side of Stewart Avenue at the new Wickham Interchange, requiring light rail vehicles to cross Stewart Avenue and access the existing rail corridor via Beresford Street. Additionally, with the new road connection at Steel Street the light rail vehicle will be required to cross Steel Street before accessing the Hunter Street dedicated Light Rail Lane at Worth Place. The Hunter Street dedicated lane continues until Market Street where the alignment becomes shared running with regular traffic until Pacific Street, where the light rail terminates at the terminus on the northern side of Pacific Park near Newcastle Beach.



**Figure 2-3 Proposed Newcastle light rail alignment and stop locations**

## 3. Base conditions

The NUTTP rezoning proposal is being delivered in conjunction with the Newcastle Light Rail project. As such the Base, or pre-development scenario for this study is the TfNSW Light Rail Proposal. The establishment of this Base scenario, including the light rail alignment and stop locations, and changes to the road network to accommodate light rail traffic impacts, has been the subject of separate discussions between TfNSW, RMS and Newcastle City Council, and a separate REF has been approved for that project.

### 3.1 Road network

Key elements of the road network relevant to the rezoning proposal are described below, including planned changes associated with the Light Rail project.

#### *Hunter Street*

Hunter Street is an arterial road that runs in an east-west direction, running parallel to the former heavy rail line between Wickham and Newcastle. It is generally a two-way four lane undivided road. The former railway corridor runs parallel to Hunter Street on the road's northern side. Between Perkins Street and Bolton Street, most traffic uses the parallel Scott Street, with Hunter Street being a one-way westbound 10km/h shared zone through the 'Hunter Street Mall'. Hunter Street and Scott Street have a sign posted speed limit of 60 km/h and carries up to 1200 vehicles per hour in the peak period. Hunter Street provides access to residential and commercial properties and a local shopping and café precinct in the eastern mall area.

#### *King and Parry Street*

King Street is an arterial road that runs parallel to Hunter Street. Between Union Street and Stewart Avenue, it is a four lane divided road, with peak volumes up to 1,400 vehicles per hour. The adjacent land-uses are generally commercial however there are also a number of hotels and residential apartment blocks along its length. To the west of the intersection with Stewart Avenue, King Street becomes Parry Street. At this location Parry Street is also a four lane divided road with a third west bound clearway lane in the afternoon. Parry Street connects with Donald Street, Hamilton and ultimately becomes Newcastle Road to the western suburbs and the M1 Motorway. The posted speed limit varies between 40 km/hr, 50 km/hr and 60 km/hr, reflecting the road configuration, adjacent land use and pedestrian activity levels.

#### *Union Street*

Union Street is a collector road that runs in a north-south direction between Hunter Street and The Junction, terminating at Mitchell Street, Merewether. Union Street is a two-lane carriageway with a speed limit that varies between 40km/h and 60km/h, and carries up to 800 vehicles per hour in the peak period. On-street parking is permitted along most of its length and provides direct access to a number of residential properties and The Junction shopping precinct.

#### *Darby Street*

Darby Street is a collector road that runs in a north-south direction between Hunter Street and Parkway Avenue. Between Bull Street and Queen Street, the sign posted speed limit is 40km/h and the road is characterised by a bar and café precinct, generating high levels of pedestrian activity. Darby Street is generally a two-lane carriageway that carries approximately 1000 vehicles per hour in the peak period.

### ***Honeysuckle Drive and Wharf Road***

Honeysuckle Drive runs generally east-west between the former heavy rail corridor and Newcastle Harbour. It becomes Workshop Way before changing to Wharf Road at Merewether Street. Honeysuckle Drive services the commercial office space, residential and restaurant/bar precincts that are adjacent to Newcastle Harbour. East of Merewether Street, there are several medium density residential and commercial developments. Peak period traffic volumes are up to 700 vehicles per hour, highest at the western end of the road. A 50 km/hr speed limit applies.

#### **3.1.1 Road network changes with light rail**

The concept for the light rail included the following changes to the road network:

- New traffic signals on Stewart Avenue at Beresford Street to allow safe crossing of Stewart Avenue by the light rail vehicles.
- East/West 'light rail only' dedicated lanes in Beresford Street.
- A westbound dedicated vehicle lane in Beresford Street.
- A new road connection between Hunter Street and Honeysuckle Drive, across the existing heavy rail corridor, at Steel Street with new traffic signals at the intersection of Steel Street and the light rail track.
- A signalised intersection at the new Steel Street connection at Honeysuckle Drive. Right turns from Honeysuckle Drive onto Steel Street are to be banned.
- A new road connection between Hunter Street and Honeysuckle Drive at Worth Place. The intersection of Worth Place and Hunter Street is to be left in / left out, with traffic signals to control light rail movements across Hunter Street.
- Changes to all the intersections along Hunter Street between Worth Place and Pacific Street to control all right turns across the light rail track through green / amber / red arrows.
- New traffic signals at the Wolfe Street/Scott Street intersection with the north approach being a new connection to Wharf Road.
- A new pedestrian crossing of Scott Street at Market Street, and Hunter Street at Civic.
- New traffic signals at the Scott Street/Pacific Street intersection to facilitate northbound left turning and eastbound right turning light rail vehicles accessing the eastern terminus at Pacific Park.
- Light rail with separated running in Hunter Street between Worth Place and Market Street.
- Light rail with shared running in Hunter Street between Market Street and Wolfe Street.

The following additional changes to the road network have also been considered, as outlined in the Newcastle Light Rail Associated Road Upgrades REF (TfNSW, 2016):

- Stewart Avenue / Hannell Street intersection upgrade, including new and extended turn lanes.
- Hunter Street / Steel Street intersection upgrade, including a new right turn lane and additional lanes on Hunter Street.
- King Street / Darby Street intersection upgrade, including extended turn lanes.

## 3.2 Bus services

All of the existing 30 bus routes that pass through the city centre terminate at Newcastle bus interchange adjacent to Newcastle station. When light rail is implemented, the bus network within the city centre would be reconfigured. The final arrangement would depend on the newly appointed network operator. However for the purposes of the Light Rail REF most bus routes were assumed to terminate in Hunter Street at Auckland Street. This is the bus network that has been assumed for this assessment.

## 3.3 Pedestrians and cyclists

Pedestrians are well catered for in and around the study area, with footpaths provided adjacent to most roadways. Since the termination of the former heavy rail line, a number of at-grade pedestrian connections have been made across the corridor, including at Steel Street, Kuwami Place, Worth Place, Civic Station, Argyle Street, Perkins Street and Wolfe Street.

On-road bike lanes are provided on several streets in the study area, including parts of Honeysuckle Drive, King Street, and Auckland Street.

Shared paths are also provided along the harbour through Honeysuckle and parallel to Wharf Road towards Nobbys Head.

## 3.4 Parking

On-street and off-street parking is provided within the study area, both by Newcastle City Council and private operators. Car parking is generally time restricted, with pay and display systems in operation.

Several parking studies and strategies have been completed for Newcastle in recent years, including by Council and TfNSW. The most recent study, the “Newcastle Transport Program Parking Strategy” was prepared by Bitzios Consulting in late 2016 for TfNSW, in the context of managing changes in parking associated with the Light Rail project and other developments. The Draft Parking Strategy (February 2017) included the following key findings:

- Parking Supply
  - Existing parking supply in the inner Newcastle area is 11,374 spaces, including 7,623 on-street spaces and 3,751 off-street spaces.
  - Peak occupancy across all spaces was 78%, although the range in individual locations was between 53% and 98%. The majority of spare capacity occurs in fringe areas surrounding the CBD. This is consistent with recent studies by Council, which also concluded that parking demand has increased since previous surveys in 2014 (prior to the heavy rail truncation).
  - The Newcastle Light Rail and Wickham Transport Interchange projects will result in the loss of 475 on-street spaces. Some 223 on-street spaces would be gained through enabling works for the Supercar event, and refinements to the light rail and roadworks design, with a net loss of 252 on-street spaces.
  - The progressive closure of existing temporary car parks at Lee Wharf and Throsby Wharf between 2018 and 2020 to allow for development of these sites, as well as at Wrights Lane (Parcels 16-19 adjacent to this current proposal), would result in the loss of 740 off-street spaces. These changes are not related to the light rail project, associated roadworks or transport interchange construction. Parking at these locations was planned to be temporary until economic and market conditions supported new development opportunities on these sites, Expansion of the existing

Gibson Street car park, and further Supercar enabling works, would reduce the net loss of off-street spaces to 293.

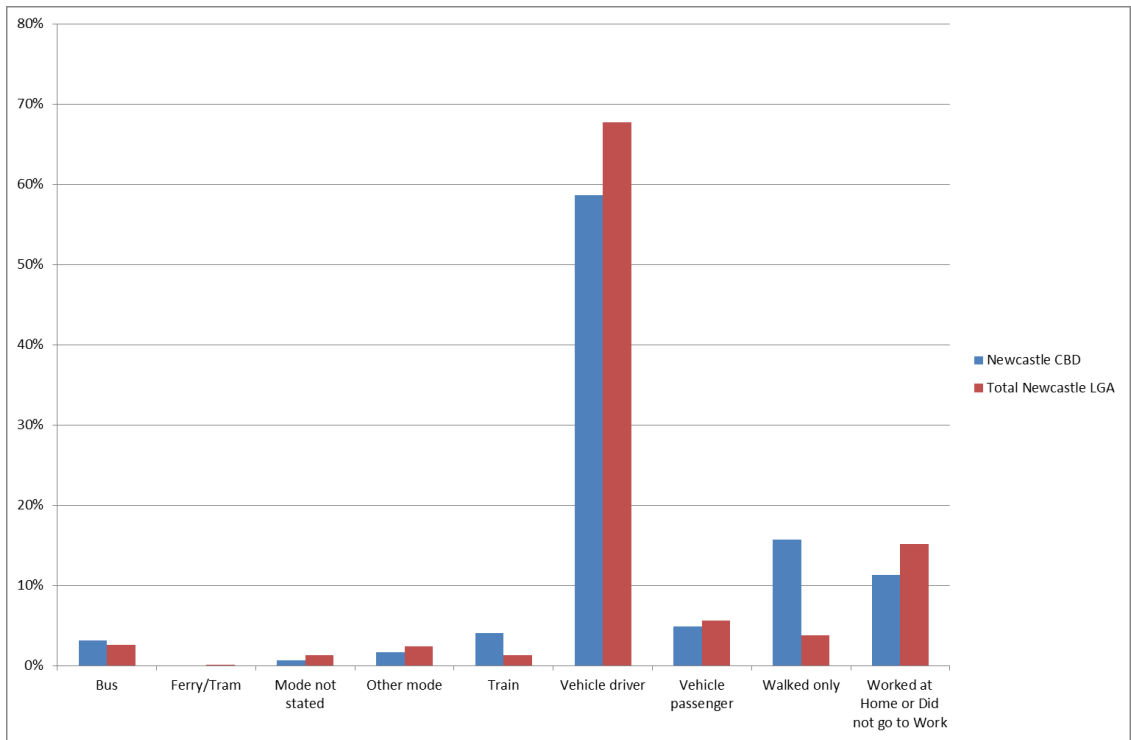
- The potential for an additional 138 spaces was identified, including new spaces in Steel Lane, Worth Place and expansion of the Boat Harbour car park.
- The net reduction in parking would be 407 spaces, increasing the peak occupancy across all spaces to 81% (approximately 2,060 spare spaces) for current 2016 demand.
- Future Demand
  - If parking demand increases at the same rate as employment in the Newcastle CBD is predicted to grow, the current public parking supply would be fully occupied by 2024.
  - The most sustainable approach to parking in Newcastle is about demand management, not demand satisfaction.
- Recommendations
  - Limiting parking supply is necessary to support increased active transport mode share and reduce congestion.
  - The strategy recommends overarching directions including:
    - Demand management, rather than demand satisfaction.
    - Progressive relocation of all-day parking outwards from the centre.
    - Prioritise short-stay, high turnover parking over long stay, low turnover parking.
    - Utilise on-street parking for short-stay use only.
    - Reduce on-street time limits to maximise efficiency and turnover.
    - Progressively increase public transport use to reduce parking demand.
    - Cap off-street parking in the eastern parts of the CBD.
    - Intercept cars before they enter the city centre, through investigation of new off-street parking, or park and ride opportunities.

### **3.5 Travel behaviour**

The majority of trips undertaken within Newcastle are made by car. The 2011/12 Household Travel Survey from the Bureau of Transport Statistics indicates that for residents of the Newcastle Local Government Area, 57% of trips are made as a vehicle driver, with 23% as a vehicle passenger. Walking accounts for 15% of trips, while all other modes combined make up only 5% of trips.

A breakdown of similar data included in the 2015 Newcastle Transport Strategy suggests that in Inner Newcastle, the car is still dominant but other modes are more popular.

Results of the 2011 Census Journey to Work data validate this observation. Figure 3-1 compares the mode of commute trips for residents of the Newcastle CBD with the whole Newcastle Local Government Area. For the CBD vehicle driver and passenger are less dominant and public transport and walking more popular. It is noted that the truncation of the heavy rail line since this data was collected may affect mode share to public transport in the CBD area. Similarly, the introduction of light rail is also expected to influence travel behaviour.



Data Source; Australian Bureau of Statistics

**Figure 3-1 Journey to work mode share, 2011**



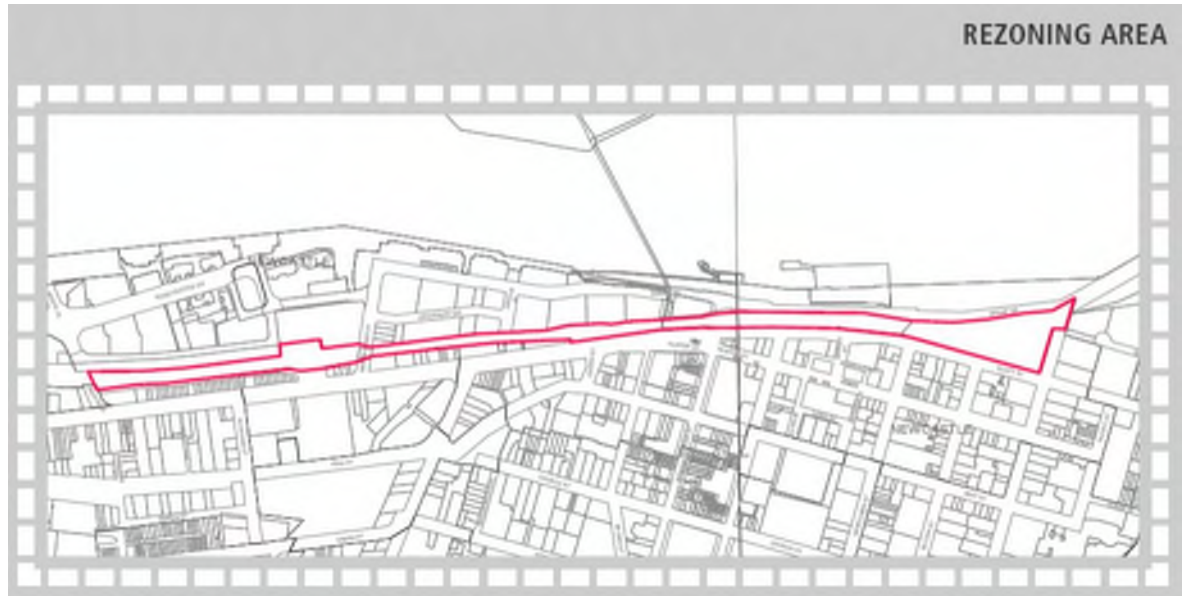
# 4. Rezoning proposal

## 4.1 Overview

The rezoning site is located in Newcastle city centre and comprises a collection of land holdings within the surplus rail corridor lands.

The site is approximately 2.1km in length generally bounded by Wharf Road to the north, Watt Street to the east, Hunter and Scott Streets to the south and Worth Street to the west. The site includes Civic and Newcastle Stations.

The site area subject to the rezoning is provided in Figure 4-1.



Source: Elton Consulting

**Figure 4-1 Rezoning site area**

## 4.2 Assumed development mix

Table 4.1 shows the assumed Gross Floor Area (GFA) that could be achieved on each land parcel. It has been assumed that 10% of GFA would be for non-residential uses, and that all sites can achieve a full GFA entitlement.

Future development applications will be subject to planning approval and public exhibition to determine final development outcomes.

Note that the subject of this rezoning proposal is only land within the existing rail corridor. However, the assessment includes three adjacent parcels where development could be influenced by this proposal. These are:

- Parcel 16, adjacent to Parcel 1 in Wright Lane
- Parcel 18, adjacent to Parcel 3 in Wright Lane
- Parcel 19, adjacent to Parcel 4 in Wright Lane
- Parcel 20, adjacent to Hunter Street opposite Darby Street

**Table 4.1 Anticipated gross floor areas**

Parcel	Gross Floor Area	
	Non-residential (m2)	Residential (m2)
01	1,100	9,100
03	600	5,050
04	270	2,400
06	480	4,300
08	500	4,600
09	400	3,500
12	690	6,100
<b>Total</b>	<b>4,040</b>	<b>35,494</b>

Source: Hassell

Within the above floor areas for non-residential land uses, it has been assumed that 50% would be used for retail purposes, and 50% for office uses, for the purpose of estimating parking requirements (see Section 4.4).

Table 4.2 shows the assumed mix of residential units on each site, with an average apartment size of 80 m<sup>2</sup> per apartment.

**Table 4.2 Anticipated dwelling yield**

Parcel	Number of dwellings				
	Total	Studio	1 bed	2 bed	3 bed
		20%	35%	35%	10%
Within the rail corridor					
01	114	23	40	40	11
03	63	13	22	22	6
04	30	6	11	11	3
06	54	11	19	19	5
08	57	11	20	20	6
09	44	9	16	16	4
12	77	15	27	27	8
<b>Sub-total</b>	<b>440</b>	<b>88</b>	<b>154</b>	<b>154</b>	<b>44</b>
Outside the rail corridor					
16	86	17	30	30	9
18	60	12	21	21	6
19	25	5	9	9	2
20	49	10	17	17	5
<b>Sub-total</b>	<b>220</b>	<b>44</b>	<b>77</b>	<b>77</b>	<b>22</b>
<b>TOTAL</b>	<b>660</b>	<b>132</b>	<b>231</b>	<b>231</b>	<b>66</b>

Source: Hassell

## 4.3 Site access

### 4.3.1 Vehicular access

Each site would be accessed separately, with a basement car park anticipated for each mixed-use development. A summary of access arrangements for each site is provided in Table 4.3.

**Table 4.3 Vehicular access arrangements**

Parcel	Vehicular access / Egress route	Minimum access widths
1 / 16	Site access onto Wright Lane to connect to Worth Place or Settlement Lane. Potential for service vehicle access via Civic Lane. No change proposed in Civic Lane (subject to Development Application).	Combined entry / exit 6.0 to 9.0 metres wide.
3 / 4 / 18 / 19	Site access onto Wright Lane to connect to Worth Place or Settlement Lane. Potential for service vehicle access via Civic Lane. No change proposed in Civic Lane (subject to Development Application).	Combined entry / exit 6.0 to 9.0 metres wide.
6	Access connects to Merewether Street (left-in / left-out only), replicating an existing laneway between Hunter Street properties and the railway station. Access to Hunter Street is via Workshop Way roundabout.	Combined entry / exit 3.0 to 5.5m wide.
8	Left-in / left-out access to Merewether Street. Access from Hunter Street via Workshop Way roundabout.	Combined entry / exit 3.0 to 5.5m wide.
9	Site access via Argyle Street.	Combined entry / exit 3.0 to 5.5m wide.
20	Site access via Argyle Street. No access off Hunter Street.	Combined entry / exit 3.0 to 5.5m wide.
12	Site access via Argyle Street. No access off Hunter Street.	Combined entry / exit 6.0 to 9.0 metres wide.
15	Entry from Watt Street, exit to Wharf Road, similar to existing bus layover area access and egress arrangements. Final configuration to be confirmed at Development Application stage.	Access geometry to be confirmed at Development Application stage.

Generally, Council has indicated a strong preference to avoid vehicle crossovers on Hunter Street and Scott Street, hence rear access has been assumed.

### 4.3.2 Access to public transport

Each of the rezoning sites is well situated with regard to public transport. Table 4.4 details the approximate walking distances between each of the rezoning sites and public transport services in Hunter Street.

**Table 4.4 Approximate distances to public transport**

Parcel	Walking distance to Proposed Light Rail stop	Walking distance to Proposed Bus Stop
1 / 16	300 m (Civic)	240 m
3 / 18	150 m (Civic)	215 m
4 / 19	110m (Civic)	180 m
6	80 m (Civic)	190 m
8	190 m (Civic)	300 m
9	220 m (Crown Street)	60 m
20	210 m (Crown Street)	50 m
12	30 m (Crown Street)	160 m
16	230 m (Market Place)	10 m

Pedestrian access around each of the development sites will be facilitated by the public open space that is proposed, that will connect to the existing footpath network.

### 4.4 Parking provision

The Newcastle Development Control Plan (DCP) 2012 outlines requirements for car parking for various land use categories. Requirements relevant to this proposal are shown in Table 4.5.

**Table 4.5 Newcastle DCP 2012 parking requirements**

Land use	Car parking	Bike parking	Motorbike parking
Residential Accommodation (Attached Dwellings, Multi Dwelling Housing, Residential Flat Buildings, Shop Top Housing)	(Refer to Note 1) Small (<75 m <sup>2</sup> or 1 bedroom) average 0.6 spaces per dwelling Medium (75 m <sup>2</sup> - 100m <sup>2</sup> or 2 bedrooms) average 0.9 spaces per dwelling Large (>100 m <sup>2</sup> or 3 bedrooms) average 1.4 spaces per dwelling 1 space for the first 3 dwellings plus 1 space for every 5 thereafter or part thereof for visitors		
Office	1 space per 50 m <sup>2</sup> GFA	1 space per 200 m <sup>2</sup> GFA (Class 2)	1 space per 20 car spaces
Restaurant or Café	1 space per 6.5 m <sup>2</sup> GFA or 1 space per 3 seats	1 space per 100 m <sup>2</sup> GFA (Class 2)	1 space per 20 car spaces
Shops	1 space per 40 m <sup>2</sup> GLFA	1 space per 200 m <sup>2</sup> GFA (50% Class 2, 50% Class 3)	1 space per 20 car spaces

*Note 1: Requirements are for the Newcastle City Centre and Renewal Corridors*

The DCP also allows for departures from the above rates to be approved in certain circumstances, including:

- Shared use opportunities arising from the different hours of demand for various uses.
- Where a Green Travel Plan has been prepared and agreed between the Council and the owner / occupier.
- Access to public transport services, and likely modes of travel.
- Whether a car sharing scheme is proposed.
- Availability and accessibility of public parking facilities, including on-street and off-street spaces.
- Considering the impacts of providing on-site parking.

For these development sites, it is expected that the requirements on the DCP for on-site parking could be satisfied. However it is possible that within the framework of the DCP future Development Applications could propose reduce on-site parking provision primarily based on:

- Locality in the city centre and thus accessible to many different land uses.
- Access to public transport (see Section 4.3.2)
- Limited on-site capacity

There is also the possibility that future Development Applications could include shared use parking, a Green Travel Plan and/or car share schemes which could reduce parking demand. The final parking requirement will be determined at the development application stage following public exhibition.

Table 4.6 shows the number of spaces required by the DCP for each land parcel, based on the anticipated dwelling yield and proposed non-residential floor area.

**Table 4.6 DCP parking requirements**

Parcel	Proposed zone	DCP parking requirement (no discount)
1 / 16 *	B4 Mixed Use	236
3 / 18 *	B4 Mixed Use	146
4 / 19 *	B4 Mixed Use	67
6	B4 Mixed Use	64
8	B4 Mixed Use	67
9	B4 Mixed Use	53
12	B4 Mixed Use	90
20 *	B4 Mixed Use	59
<b>Total</b>		<b>781</b>

\* Includes part outside existing rail corridor

## 4.5 Traffic generation and distribution

Traffic generation rates for the proposed development sites has been estimated based on information provided in the NSW RMS Guide to Traffic Generating Developments 2013 Update, and agreed with Council and RMS.

The Guide does not provide rates for the Newcastle CBD specifically, and the adopted traffic generation rate is as stated in the Guide for an existing site at Charlestown. Data for this site has been adopted in preference to an average across several sites, or to an alternative site in Sydney or elsewhere. It provides a conservatively high estimate of traffic generation for the proposed rezoning, given the greater accessibility to activity centres and public transport in the CBD, relative to Charlestown.

For the purposes of estimating the traffic impacts of the proposed rezoning, the adopted traffic generation rates are conservatively based on the full number of parking spaces required by the DCP for each site. The adopted rates are shown in Table 4.7 and are higher than alternative trip generation rates determined by measures such as vehicle trips per unit or per bedroom. This allows for some flexibility in the ultimate development of each site, where a more intense land use may be proposed by the developer of each site. The current concept has an assumed mix of unit sizes, and commercial / retail floorspace, which determines the car parking requirements. This may change as more detailed planning is undertaken for each development site (post-rezoning).

It has been assumed that non-residential land uses will be largely ancillary to the residential components of the development, with parking provided for tenants only. Traffic generation has been based on the parking supply for residential and non-residential uses, as determined by the quantity and type of residential units, and the floor area for non-residential uses.

**Table 4.7 Adopted traffic generation rates**

	Sample site – Charlestown
AM Peak Vehicle Trips per car space	0.37
PM Peak Vehicle Trips per car space	0.40
Daily Vehicle Trips per car space	4.18

Source: NSW RMS Guide to Traffic Generating Developments 2013 Update, Appendix B3

Table 4.8, overleaf, summarises the estimated traffic generation for each of the development sites.

#### **4.5.1 Traffic distribution**

The traffic generated by each of the development sites, as detailed in Table 4.8, was distributed throughout the study area shown in Figure 1-2. The distribution was weighted by existing traffic volume, such that areas of already high traffic volumes contributed to more of the traffic generated by the development sites than those areas with currently low traffic volume.

To reduce the potentially unrealistic number of short trips that this distribution could create, only the areas south of King Street, north of the Honeysuckle Drive / Hannell Street intersection and West of Stewart Avenue were considered to be origins or destinations for the development traffic.

**Table 4.8 Traffic generation summary**

Parcel	Residential Units					Non-residential		DCP Parking Requirements (number)	Traffic Generation per car space per peak hour				
	Studio	1-bed	2-bed	3-bed	Total	Office GFA m <sup>2</sup>	Retail GLFA m <sup>2</sup>		AM - Inbound	AM – Outbound	PM - Inbound	PM – Outbound	Daily (2-way)
1 / 16	40	70	70	20	200	935	700	236	17	70	66	28	986
3 / 18	25	43	43	12	123	570	430	146	11	43	41	18	610
4 / 19	11	20	20	5	56	245	185	67	5	20	27	19	282
6	11	19	19	5	54	240	180	64	5	19	18	8	268
8	11	20	20	6	57	250	190	67	5	20	19	8	280
9	9	16	16	4	45	200	150	53	4	16	15	6	222
20	10	17	17	5	49	225	170	59	4	17	17	7	247
12	15	27	27	8	77	345	260	90	7	27	25	11	376
<b>Total</b>	<b>132</b>	<b>231</b>	<b>231</b>	<b>66</b>	<b>660</b>	<b>3,010</b>	<b>2,265</b>	<b>782</b>	<b>58</b>	<b>231</b>	<b>219</b>	<b>94</b>	<b>3271</b>



# 5. Assessment methodology

## 5.1 Microsimulation traffic model

The *Newcastle Urban Transformation and Transport Program* microsimulation model has been utilised to analyse the land rezoning proposed by UrbanGrowth NSW. The model has been developed using the Paramics microsimulation modelling package (version 6.7.2) with additional functionality provided by the CeeJazz suite of Plugins.

The modelling and assessment methodology has been agreed between UGNSW, TfNSW, Roads and Maritime Services and Newcastle City Council.

### 5.1.1 Previous modelling

GHD developed the NUTTP microsimulation model for Transport for NSW (TfNSW) to assess the traffic-related impacts associated with the implementation of light rail through the Newcastle City Centre. The model was based on a microsimulation traffic model for the Newcastle City Centre developed by Bitzios Consulting in 2009. An extensive update of the 2009 Newcastle City Centre microsimulation model was undertaken by GHD for existing traffic conditions (based on traffic surveys undertaken by SkyHigh in June 2014, prior to the truncation of the heavy rail line), with a further update based on traffic surveys undertaken by SkyHigh in March 2015 (post heavy rail truncation). The updated model was calibrated and validated according to the methodology set out in the Roads and Maritime *Traffic Modelling Guidelines, 2013*.

This model was developed in collaboration between TfNSW, Roads and Maritime Services and Newcastle City Council.

### *Project model conditions*

The Newcastle Urban Transformation is assumed to coincide with the opening of the Light Rail Network in 2018. Therefore the base conditions assumed for the traffic modelling included the current proposed light rail network and estimated 2018 traffic conditions. The Light Rail network includes several changes to the road network, as outlined in Section 3.1.1.

The Implementation of the Light Rail has an impact on several key transport systems within the Newcastle area, including the bus, cyclist and pedestrian networks. These are addressed in the REF for the Light Rail project, which includes a suite of mitigation measures agreed between TfNSW, Roads and Maritime Services and Newcastle City Council. These measures have been incorporated into the modelling for this project where appropriate.

### *Modifications to Future Demand*

Previous modelling (pre-Gateway) assumed traffic growth to 2028 as informed by the Public Transport Project Model (as supplied by TfNSW). Council and RMS have requested that for this project the traffic generation from specific developments, which were not known at the pre-Gateway stage, be included in place of previous assumptions about growth. Changes from the previous modelling are summarised in Table 5.1.

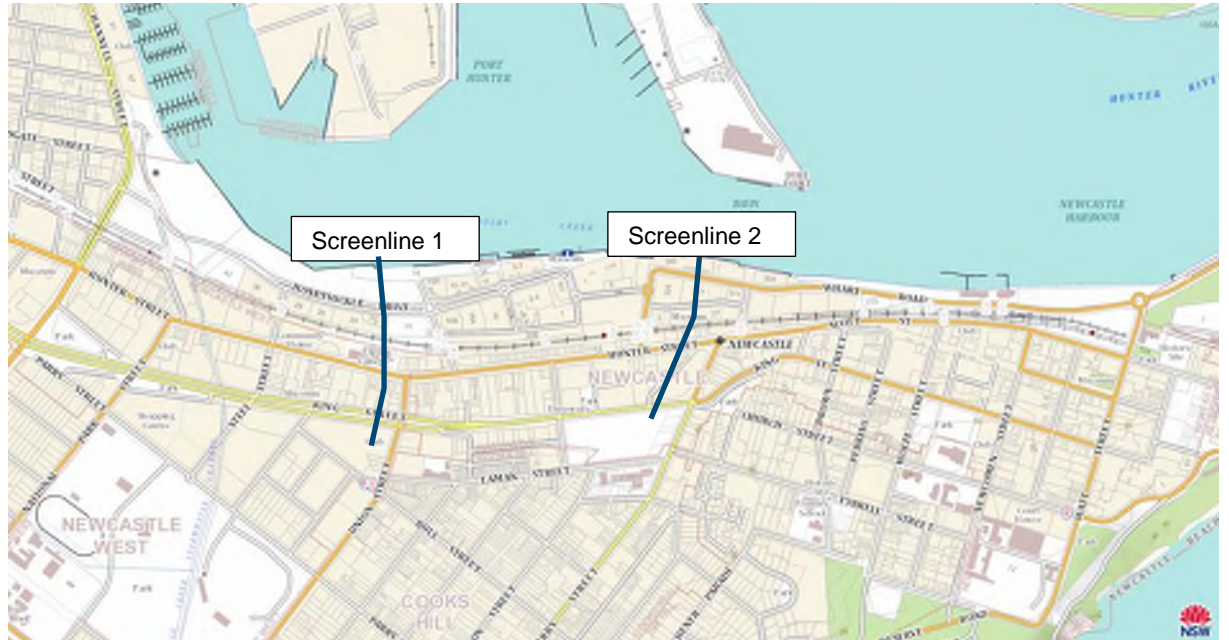
**Table 5.1 Specific Development Traffic Generation Assumptions**

Location	Development type	Current Estimate						Previous Estimate net change		Proposed Modelled Change	
		AM new trips	PM new trips	AM displaced trips	PM displaced trips	AM net change	PM net change	AM	PM	AM	PM
Wickham	Residential / commercial	67	73	8	8	59	64	-117	-118	62	68
Honeysuckle Drive	Residential / commercial	151	163	176	176	-25	-13	0	0	0	0
King Street (west)	Hotel / aged care facility / commercial	56	73	21	22	35	51	9	39	35	51
Courthouse	Commercial	87	94	87	94	0	0	44	41	44	41
Gibson St	Car park	256	256	0	0	256	256	40	39	256	256
Foreshore	Car Park	57	57	0	0	57	57	5	3	57	57

Note that the at the time of preparation of this assessment, few details of proposed University of Newcastle development between Wright Lane and Honeysuckle Place were available. However it has been assumed that this development would, like the other recent university development in the CBD, provide minimal car parking and make use of the high frequency bus services in the area, as well as the future light rail. Therefore the traffic generating impacts of this development are expected to be small.

## 5.2 Screenline volumes

For the purpose of assessing changes in traffic volumes as a result of the proposed rezoning, two screenlines have been established, each crossing Honeysuckle Drive / Wharf Road, Hunter Street and King Street. Screenline 1 is west of Union Street, while Screenline 2 is west of Darby Street. These are shown in Figure 5-1.

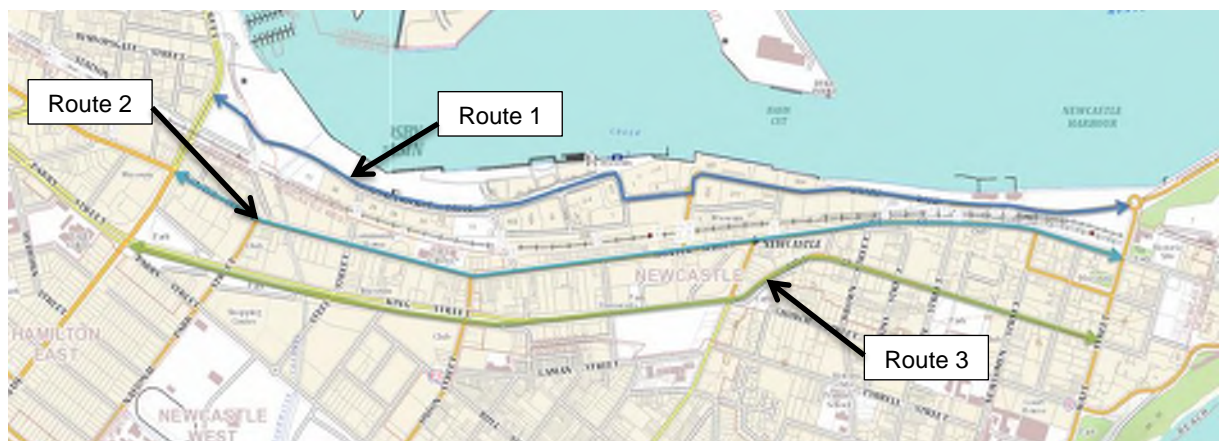


**Figure 5-1 Screenline locations**

Source: <https://maps.six.nsw.gov.au/>

## 5.3 Vehicle travel times

For the purpose of assessing changes in travel times as a result of the proposed rezoning, three routes through the network have been established, each on a major east/west route. Route 1 is vehicles travelling on Honeysuckle Drive, Route 2 is vehicles traveling on Hunter Street, while Route 3 is vehicles travelling on King Street. These are shown in Figure 5-2.



**Figure 5-2 Travel route locations**

Source: <https://maps.six.nsw.gov.au/>

## 5.4 Intersection performance

The assessment of intersection performance is based on criteria outlined in Table 5.2 as defined in the *Guide to Traffic Generating Developments* published by the NSW Roads and Maritime Services (RMS) in 2002. Intersection Levels of Service have been reported for the peak hour during the AM and PM peak periods (8 – 9 am and 5 – 6 pm).

**Table 5.2 Intersection levels of service criteria for intersections**

Level of service	Average delay per vehicle	Traffic signals and roundabouts	Give Way and Stop Signs
A	<14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays; Roundabouts will require other control mode	At capacity, requires other control mode
F	>70	Over capacity, unstable operation	Over capacity, unstable operation

Source: *Guide to Traffic Generating Developments, NSW RTA (2002)*

Intersections have been modelled using the SIDRA Intersection modelling software. Version 6.1 allows for the analysis of intersections in a network situation, where downstream effects of any queueing are taken into account.

## 5.5 Network performance

To complement the intersection performance measures detailed in Table 5.2 a measure of transport efficiency has been adopted from Austroads. Austroads provides typical level of service criteria as summarised in Table 5.3 based on travel efficiency. Level of service for motor vehicles can be measured in terms of speed for an urban street in addition to the average delay for intersections.

**Table 5.3 Level of Service Criteria for urban streets**

Level of Service	Urban Streets Travel speed as a percentage of free flow speed
A	> 85%
B	67 – 85%
C	50 – 67%
D	40 – 50%
E	30 – 40%
F	≤ 30%

Source: *Austroads, 2013*

Travel speeds on certain routes have been extracted from the Paramics microsimulation model.

## 6. Impact assessment

### 6.1 Road network impacts

General observations of the traffic network performance in the Paramics model did not show any significant decreases in performance within the road network as a result of the proposed rezoning. The observations indicated that the proposed rezoning caused minor localised increases in traffic activity, however these increases were not significant enough to cause any major issues or require additional mitigation measures.

#### 6.1.1 Traffic volumes

Changes in peak hour traffic volumes on each screenline (refer Section 5.2) are shown in the following tables.

**Table 6.1 2018 AM peak – Screenline 1 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	630	660	30	5%	410	460	50	12%
Hunter	640	650	10	2%	620	660	40	6%
King	1390	1420	30	2%	670	750	80	12%
Total	2660	2730	70	3%	1700	1870	170	10%

**Table 6.2 2018 PM peak – Screenline 1 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	550	610	60	11%	680	720	40	6%
Hunter	520	550	30	6%	890	890	0	0%
King	1190	1220	30	3%	1140	1150	10	1%
Total	2260	2380	120	5%	2710	2760	50	2%

**Table 6.3 2028 AM peak – Screenline 1 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	670	680	10	1%	420	480	60	14%
Hunter	710	770	60	8%	650	670	20	3%
King	1430	1480	50	3%	710	760	50	7%
Total	2810	2930	120	4%	1780	1910	130	7%

**Table 6.4 2028 PM peak – Screenline 1 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	490	630	140	29%	720	740	20	3%
Hunter	520	530	10	2%	950	940	-10	-1%
King	1190	1220	30	3%	1330	1320	-10	-1%
Total	2200	2380	180	8%	3000	3000	0	0%

**Table 6.5 2018 AM peak – Screenline 2 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	410	410	0	0%	60	60	0	0%
Hunter	430	490	60	14%	470	470	0	0%
King	740	780	40	5%	410	430	20	5%
Total	1580	1680	100	6%	940	960	20	2%

**Table 6.6 2018 PM peak – Screenline 2 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	390	370	-20	-5%	80	90	10	12%
Hunter	570	570	0	0%	610	630	20	3%
King	670	650	-20	-3%	570	570	0	0%
Total	1630	1590	-40	-2%	1260	1290	30	2%

**Table 6.7 2028 AM peak – Screenline 2 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	470	500	30	6%	60	60	0	0%
Hunter	450	550	100	22%	480	480	0	0%
King	760	770	10	1%	440	460	20	5%
Total	1680	1820	140	8%	980	1000	20	2%

**Table 6.8 2028 PM peak – Screenline 2 volumes**

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	360	360	0	0%	80	80	0	0%
Hunter	560	590	30	5%	640	650	10	2%
King	680	670	-10	1%	630	640	10	2%
Total	1600	1620	20	1%	1350	1370	20	1%

These results show that changes in total traffic across each screenline are commensurate with the traffic generation from the proposed development sites. This analysis assumes that there isn't a significant volume of traffic switching from one route to another as a result of the additional traffic being added to the network.

### 6.1.2 Travel times

Changes in peak hour travel times on each route (refer Section 5.3) are shown in the following tables.

**Table 6.9 2018 AM peak – Travel times**

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:15	03:17	0:02	1%	03:21	03:26	0:05	2%
2	04:54	05:02	0:08	3%	05:59	06:02	0:03	1%
3	04:53	04:52	-0:01	0%	06:51	07:51	1:00	15%

**Table 6.10 2028 AM peak – Travel times**

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:17	03:19	0:02	1%	03:21	03:28	0:07	3%
2	04:59	05:17	0:18	6%	06:07	06:16	0:09	3%
3	06:07	05:54	-0:13	4%	07:10	08:16	1:06	15%

**Table 6.11 2018 PM peak – Travel times**

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:29	03:30	-0:01	0%	04:06	04:35	0:29	12%
2	07:44	08:14	0:30	6%	05:57	05:58	0:01	0%
3	05:41	05:43	0:02	1%	06:10	06:13	0:03	1%

**Table 6.12 2028 PM peak – Travel times**

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:25	03:28	0:03	1%	04:50	04:26	-0:24	-8%
2	07:27	08:09	0:42	9%	06:08	06:27	0:19	5%
3	05:44	05:54	0:10	3%	07:44	08:34	0:50	11%

These results show that changes in travel times on each route, as a result of the increase in traffic generated by the proposed rezoning, are generally small. Analysing the efficiency of travel on these routes (see Section 5.5) the following table show that generally there is no

decrease in travel efficiency, with Levels of Service values remaining similar between base conditions and with the proposed rezoning.

**Table 6.13 AM peak – Travel efficiency**

Route	Eastbound				Westbound			
	2018		2028		2018		2028	
	Base	With UGNSW	Base	With UGNSW	Base	With UGNSW	Base	With UGNSW
1	92% [LoS A]	91% [LoS A]	91% [LoS A]	91% [LoS A]	90% [LoS A]	89% [LoS A]	90% [LoS A]	88% [LoS A]
2	63% [LoS C]	57% [LoS C]	63% [LoS C]	56% [LoS C]	52% [LoS C]	48% [LoS D]	47% [LoS D]	47% [LoS D]
3	66% [LoS C]	66% [LoS C]	49% [LoS D]	54% [LoS C]	46% [LoS D]	40% [LoS E]	42% [LoS D]	36% [LoS E]

**Table 6.14 PM peak – Travel efficiency**

Route	Eastbound				Westbound			
	2018		2028		2018		2028	
	Base	With UGNSW	Base	With UGNSW	Base	With UGNSW	Base	With UGNSW
1	88% [LoS A]	88% [LoS A]	89% [LoS A]	88% [LoS A]	71% [LoS B]	66% [LoS C]	64% [LoS C]	68% [LoS B]
2	39% [LoS E]	35% [LoS E]	40% [LoS E]	36% [LoS E]	52% [LoS C]	52% [LoS C]	47% [LoS D]	46% [LoS D]
3	55% [LoS C]	55% [LoS C]	55% [LoS C]	54% [LoS C]	49% [LoS D]	49% [LoS D]	40% [LoS D]	36% [LoS E]

### 6.1.3 Intersection operation

SIDRA Intersection software was used to review the individual intersection performance within the network. The results of the analyses are shown in the following tables.

**Table 6.15 2028 AM peak – Intersection delay [level of service] (degree of saturation)**

Intersection	Without UrbanGrowth Development Traffic	With UrbanGrowth Development Traffic
Stewart Avenue / Hunter Street	34 seconds [C] (0.74)	34 seconds [C] (0.74)
Stewart Avenue / King Street	50 seconds [D] (0.97)	50 seconds [D] (0.99)
Steel Street / Hunter Street	26 seconds [B] (0.43)	27 seconds [B] (0.48)
Steel Street / King Street	20 seconds [B] (0.72)	12 seconds [A] (0.78)
Union Street / Hunter Street	31 seconds [C] (0.49)	35 seconds [C] (0.53)
Union Street / King Street	50 seconds [D] (0.95)	58 seconds [E] (1.04)
Darby Street / Hunter Street	37 seconds [C] (0.89)	35 seconds [C] (0.89)
Darby Street / King Street	29 seconds [C] (0.73)	30 seconds [C] (0.74)



**Table 6.16 2028 PM peak – Intersection delay [level of service] (degree of saturation)**

Intersection	Without UrbanGrowth Development Traffic	With UrbanGrowth Development Traffic
Stewart Avenue / Hunter Street	31 seconds [C] (0.84)	40 seconds [C] (0.92)
Stewart Avenue / King Street	41 seconds [C] (0.93)	42 seconds [C] (0.92)
Steel Street / Hunter Street	35 seconds [C] (0.74)	35 seconds [C] (0.76)
Steel Street / King Street	28 seconds [B] (0.79)	28 seconds [B] (0.79)
Union Street / Hunter Street	26 seconds [B] (0.51)	26 seconds [B] (0.54)
Union Street / King Street	>70 seconds [F] (1.16)	>70 seconds [F] (1.20)
Darby Street / Hunter Street	34 seconds [C] (0.91)	51 seconds [D] (0.99)
Darby Street / King Street	35 seconds [C] (0.79)	37 seconds [C] (.83)

The results show that in most cases intersection performance remains generally steady with the inclusion of the proposed rezoning. It is noted that some of the variation in performance measures between scenarios is due to changes in signal phasing, and the resulting changes in relative capacity on each approach.

#### **6.1.4 Local traffic impacts**

Local areas will not be adversely impacted by the proposed rezoning, with the majority of traffic generated from the developments travelling to/from the major roads of Hunter Street, King Street, Union Street, Darby Street and Hannell Street.

## **6.2 Public transport**

As discussed in Section 3.2, major changes to existing bus services in the CBD are proposed to coincide with the introduction of Light Rail. Changes will include bus route terminus locations, and changes to bus stops in Hunter Street.

Any changes to bus operations in the CBD are independent of, and are not required to facilitate, the proposed rezoning.

## **6.3 Pedestrians and cyclists**

The proposed development sites will enhance the public open space surrounding each site, with retail land uses activating building frontages to provide increased opportunity for movement, recreation and service transactions.

The closure of the heavy rail service has allowed at-grade pedestrian access to be provided at several locations across the former rail corridor. Table 6.17 summarises the existing and proposed pedestrian infrastructure for movement between the Newcastle CBD, across Hunter Street / Scott Street, across the former heavy rail corridor, and across Honeysuckle Drive / Wharf Road to the waterfront.

**Table 6.17 Pedestrian access between CBD and waterfront**

Location	Hunter Street / Scott Street crossing	Former Rail Corridor Crossing	Honeysuckle Drive / Wharf Road crossing
Steel Street	Existing traffic signals	At-grade crossing of Light Rail	Uncontrolled crossing, pedestrian refuge in median.
Kuwami Place	No formal pedestrian provision	At-grade crossing at Light Rail stop	Uncontrolled crossing, pedestrian refuge in median.
Worth Place	New signalised intersection as part of Light Rail project	At-grade crossing of Light Rail	Uncontrolled crossing, pedestrian refuge in median.
Civic Link	New signalised crossing at Light Rail stop	Public open space	Pedestrian (zebra) crossings of Workshop Way.
Merewether Street	Existing traffic signals	Existing Merewether Street footpaths	Pedestrian (zebra) crossing of Workshop Way.
Argyle Street	Existing traffic signals at Darby Street	Public access through development site	Existing pedestrian (zebra) crossing with refuge island.
Perkins Street	TBC	Public open space	Existing pedestrian (zebra) crossing.
Wolfe Street	TBC	Public open space	Existing pedestrian (zebra) crossing to be relocated to Market Street.
Market Street	New signalised crossing at Light Rail stop	Public open space	Relocated pedestrian (zebra) crossing.
Newcomen Street	TBC	Public open space	Pedestrian (zebra) crossings at Market Street and west of Watt Street.
Watt Street	Existing traffic signals	Existing Watt Street footpaths	Existing pedestrian (zebra) crossing east of Watt Street.

Civic Link will be a particular focus of pedestrian connectivity, with pathways connecting between Hunter Street and the foreshore. A light rail stop is proposed for Hunter Street adjacent to Civic Link, with a signalised pedestrian crossing linking the footpath with the light rail platforms.

Footpaths would be maintained alongside existing roadways.

The proposed rezoning would have no impact on existing bicycle infrastructure including on-road bike lanes and off-road pathways.

## 6.4 Parking

The proposed rezoning will not directly impact on any existing off-street public parking. However, two existing off-street parking areas are on land adjacent to the rezoning that is also likely to be redeveloped (Parcels 16-19). There are currently 189 spaces off Wrights Lane, with a mixture of 2 hour, 4 hour and 8 hour restrictions (pay and display).

The Newcastle Transport Program Parking Strategy (see Section 3.4) considered the implications of the removal of these spaces in its assessment. The Wrights Lane parking areas represent 16% of the total number of spaces to be removed in the near future as a result of the Light Rail project and various development sites.

The Parking Strategy concludes that the overall net loss of parking supply, including the 189 spaces affected by this proposal, is manageable in the context of broader objectives of parking demand management and increased public transport use.

## 7. Conclusions

This study has examined the traffic implications of the proposed rezoning of the previous heavy rail corridor through the Newcastle CBD.

The proposed rezoning would provide for several mixed-use sites, as well as sites for public recreation. For the purpose of this assessment the rezoning application includes the assumed potential for some 440 residential units, and 4,040 m<sup>2</sup> Gross Floor Area of non-residential land use (most likely office and/or retail). Development on three adjacent and related sites, which do not form part of the rezoning application, has also been considered in this assessment.

Key findings of the assessment include:

- The proposed rezoning would generate up to an additional 3,300 vehicle movements (2-way) each day across all the development sites. This is expected to be an overestimate of actual generation, with a high mode share to public and active transport expected due to the locations of the development sites relative to light rail, bus services and the Newcastle CBD and Honeysuckle activity areas.
- Traffic modelling indicates that for forecast peak hour traffic conditions in 2018 and 2028, the additional traffic generated by the rezoning will not have a significant impact on the operation of the road network. The mitigation measures proposed as part of the light rail project will be sufficient to manage the changes in traffic conditions that are expected.
- On-site parking would be provided on each development site in accordance with the requirements of the Newcastle Development Control Plan 2012. The DCP allows for variation in parking provision for reasons including access to public transport, and a reduction in parking supply may be considered at the Development Application stage for each site.
- A Parking Strategy, developed by TfNSW, has considered the cumulative impacts of the Light Rail project, this current proposal and various developments sites on public parking supply. A net loss of 407 spaces is expected, which would increase overall peak occupancy to 81% with current demand levels. The Strategy recommends demand management, rather than demand satisfaction, as the most appropriate approach into the future. The Parking Strategy concludes that the overall net loss of parking supply, including the 189 spaces affected by this proposal, is manageable in the context of broader objectives of parking demand management and increased public transport use.
- The proposal would maintain and enhance pedestrian connectivity between the CBD and the waterfront. The proposed development sites will enhance the public open space surrounding each site, with retail land uses activating building frontages to provide increased opportunity for movement, recreation and service transactions.

GHD

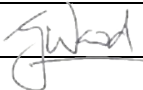
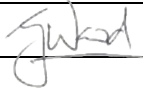
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2	T. Bickerstaff	G. Wood		G. Wood		3/06/2016
3	T. Bickerstaff	G. Wood		G. Wood		7/03/2017
4	T. Bickerstaff	G. Wood		G. Wood		23/03/2017

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**Appendix C**

Preliminary Geotech Assessment



# **Douglas Partners**

*Geotechnics | Environment | Groundwater*

Report on  
Preliminary Geotechnical Assessment

Newcastle Urban Transformation and Transport  
Program - Rezoning of Surplus Rail Corridor Land  
Worth Place to Watt Street, Newcastle

Prepared for  
Elton Consulting  
on behalf of UrbanGrowth NSW

Project 81716.01  
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Integrated Practical Solutions





## Document History

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The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

Signature	Date
Author	23 March 2017
Reviewer	23 March 2017



## Executive Summary

This report presents a desktop geotechnical assessment of government rail corridor lands between Worth Place and Watt Street, Newcastle. It is understood that UrbanGrowth NSW wishes to repurpose the surplus Newcastle rail corridor lands for urban revitalisation.

The scope of work comprised collation and review of geotechnical data from Douglas Partners files and published information, review of previous mine information, development of a broad geotechnical model for the site and provision of preliminary guidance on geotechnical design considerations including material types, excavation conditions, shoring/retaining wall options, foundations, settlement and likely extent of mine workings.

On the basis of the findings of this assessment, the rail corridor site is considered to be suitable for the proposed rezoning from a geotechnical perspective.

It is expected that with suitable investigation, design and construction in accordance with accepted engineering practice, the geotechnical design constraints can be readily managed.

Prior to the detailed design of any proposed developments specific geotechnical investigation will be required appropriate to the nature of the proposed development. Investigation and design will need to consider constraints such as the presence of filling, groundwater and acid sulphate soils, excavation conditions, earthworks requirements and procedures, suitable footing options and requirements relating to potential mine subsidence, where applicable.

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# Report on Preliminary Geotechnical Assessment

## Newcastle Urban Transformation and Transport Program - Rezoning of Surplus Rail Corridor Land

### Worth Place to Watt Street, Newcastle

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## 1. Introduction

### 1.1 General

This report presents a desktop geotechnical assessment of government rail corridor lands between Worth Place and Watt Street, Newcastle. The report was prepared by Douglas Partners Pty Ltd (DP) at the request of Elton Consulting, acting on behalf of UrbanGrowth NSW.

It is understood that UrbanGrowth NSW wishes to repurpose the surplus Newcastle rail corridor lands for urban revitalisation. To achieve this objective it is necessary to rezone the corridor lands from Special Purpose Infrastructure 2 (SP2) to zones that accommodate a range of urban land uses.

The purpose of the geotechnical assessment is to collate available geotechnical data in and around the rail corridor in order to identify geotechnical constraints and opportunities for development of the land.

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1).



**Figure 1: Rezoning study area (Source: Hassell)**

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500m commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

## 1.2 Newcastle Urban Transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment;
- Civic: the government, business and cultural hub of the city;
- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek).

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and the City of Newcastle Council (Council).

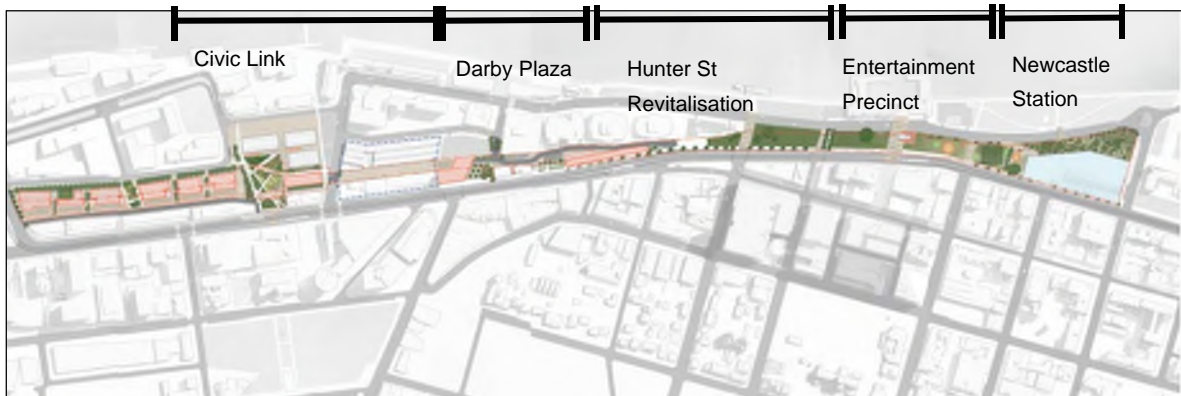
## 1.3 Proposed Rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

Surplus rail corridor land runs through the East End and Civic city centre precincts as established by NURS. Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan (the concept plan) has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas.

The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

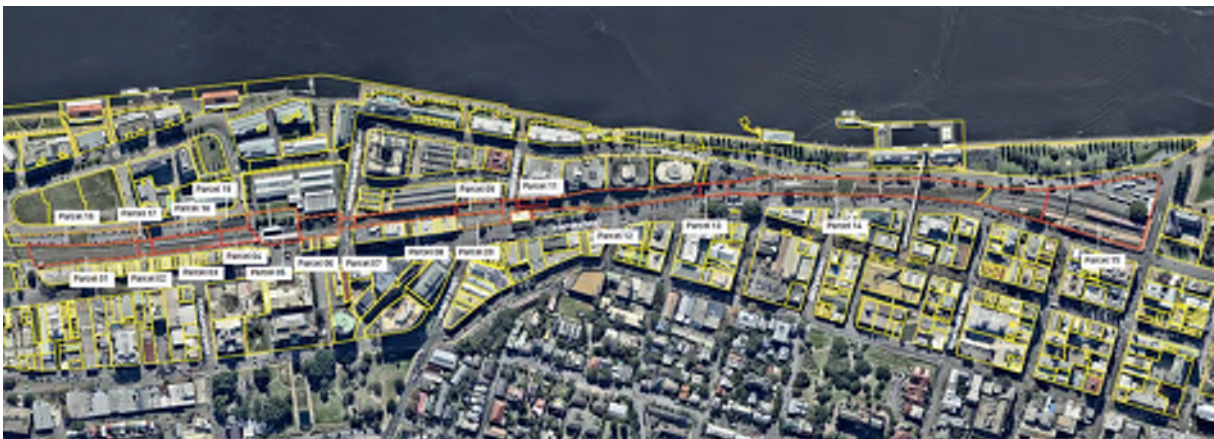
The concept plan (as shown in Figure 2) includes five key 'key moves', two that relates to the Civic precinct and three of which relate to the East End. Figure 2 provides a red line to define the site rezoning area within the broader program planning outcomes.



**Figure 2: Rezoning concept plan (Source: Hassell)**

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan.

An indication of the location of the proposed rezoning parcel is indicated in the map in Figure 3.



**Figure 3: Rezoning explanatory map and Parcels (Source: Hassell)**

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general, the proposed rezoning will provide a mix of uses enabling between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000m<sup>2</sup> of commercial, restaurant and other entertainment uses, as described in Table 1, and excluding any education or associated uses.

**Table 1: Sites for Rezoning - Proposed Development Summary**

<b>Previous Parcel Number prior to Gateway</b>	<b>Updated Parcel Number post Gateway</b>	<b>Size</b>	<b>Proposed Zoning</b>	<b>Proposed FSR</b>	<b>Proposed Height</b>
Parcel 01 B4 Mixed Use 3,370m <sup>2</sup>	Parcel 01	3,370m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 02 B4 Mixed Use 408m <sup>2</sup>	Parcel 02	408m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 03 B4 Mixed Use 3,146m <sup>2</sup>	Parcel 03	1,869m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
	Parcel 04	900m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 24m
Parcel 04 RE1 Public Recreation 2,464m <sup>2</sup>	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603m <sup>2</sup>	Now parcel 06	1,604m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height – 18m
Parcel 06 B4 Mixed Use 295m <sup>2</sup>	Now parcel 07	295m <sup>2</sup>	B4 Mixed Use (road)	FSR – 2.5:1	Height – 30m
Parcel 07 B4 Mixed Use 2,040m <sup>2</sup>	Now parcel 08	2,040m <sup>2</sup>	B4 Mixed Use	FSR – 2.5:1	Height – 30m
Parcel 08 B4 Mixed Use 988m <sup>2</sup>	Now parcel 09	988m <sup>2</sup>	B4 Mixed Use	FSR – 4:1	Height – 24m
Parcel 09 B4 Mixed Use 467m <sup>2</sup>	Now parcel 10	467m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 10 SP2 Infrastructure 386m <sup>2</sup>	Now parcel 11	386m <sup>2</sup>	SP2 Infrastructure	N/A	N/A
Parcel 11 B4 Mixed Use 4,542m <sup>2</sup>	Now parcel 12	4,542m <sup>2</sup>	B4 Mixed Use	FSR – 1.5:1	Height – 14m
Parcel 12 B4 Mixed Use 1,544m <sup>2</sup>	Now parcel 13 (and has been reduced in size)	659m <sup>2</sup>	SP2 Infrastructure	N/A	N/A



Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 13 RE1 Public Recreation 303m <sup>2</sup>	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251m <sup>2</sup>					
Parcel 15 RE1 Public Recreation 7,713m <sup>2</sup>					
Parcel 16 SP3 Tourist 10,698m <sup>2</sup>	Now parcel 15	10,698m <sup>2</sup>	SP3 Tourist	FSR – 1.5:1	Height – 10-15m

## 2. Site Location and Description

### 2.1 Site Location

The rezoning site is located in Newcastle city centre and comprises a collection of land holdings within the surplus rail corridor lands.

The site is approximately 2.1 km in length generally bounded by Wharf Road to the north, Watt Street to the east, Hunter and Scott Streets to the south and Worth Street to the west. The site includes Civic and Newcastle Stations.

The site area subject to the rezoning is shown in Figure 4 below and at larger scale in Drawing 1 in Appendix D.



**Figure 4: Rezoning Site area (Source: Elton Consulting)**

## 2.2 Site Description

The planning proposal to rezone rail corridor land relates to five (5) land holdings identified in Table 2 below. Together these land holdings are subject to the proposed NLEP Amendment and are known as the 'rezoning sites' for the purpose of this report.

The total area of the rezoning sites is approximately 42,218m<sup>2</sup> or 4.2 hectares (ha).

**Table 2: Summary of land holdings subject to proposed NLEP Amendment**

Previous Legal description (Lot/DP)	Current Legal Description (Lot/DP)	Current use	Current zone (as per NLEP)	Current ownership (as at March 2017)
Part Lot 22 DP1165985	Lot 2 in DP1226145	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation
Lot 1 DP 1192409	Remained the same	Railway and level crossing (Merewether Road)	SP2 Infrastructure (Railway)	Rail Corporation NSW
Lot 1001 DP1095836	Lot 2 in DP1226551	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation
Lot 21 DP 1009735	Lot 4 in DP1226551	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation
Lot 22 DP 1009735	Lot 6 in DP1226551	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation

The site is currently zoned 'SP2 – Infrastructure (Railway)' under the Newcastle Local Environment Plan.

### 3. Scope of Work

The scope of work for this assessment was developed with reference to the brief prepared by Elton Consulting, including consideration of the staging of the work, consultation and meetings. The detailed scope is as follows:

- Collate and review in-house geotechnical data from Douglas Partners files;
- Collate and review published geological and geotechnical information, including geology maps, acid sulphate maps, soil landscape maps and other information available in the public domain;
- Obtain relevant mine workings maps ('record traces') from the NSW Department of Industry, department of Resources and Energy to assess the potential impact of abandoned coal mines;
- Develop a broad geotechnical model of the rail corridor site, including likely sub-surface profile, presence of groundwater, assessment of mine workings;
- Provide preliminary guidance on geotechnical design matters, including excavation conditions, likelihood of unsuitable materials, shoring/retaining wall options, shallow footings, piles, and settlement;
- Provide comment of mine workings, likely extent of influence and preliminary assessment of mine stability based on the available mine plans;
- Preliminary assessment of mine subsidence design parameters based on available data and previous experience;
- Preparation of a draft report at Pre-Gateway phase, presenting the findings and commenting on the suitability of the land for development purposes;
- Updating of report following client comments and review of the Secretary's Study Requirements (Pre and Post-Gateway).

Following submission of this report, it is understood that further involvement by DP may include:

- Input into the Development Control Plan;
- Consultation with government agencies;
- Attendance at meetings and community consultation session as required.

### 4. Background Geotechnical Data

#### 4.1 Regional Geology

The regional geology along the rail corridor is shown on the 1:100,000 scale regional geology map for Newcastle (Newcastle Coalfield Regional Geology, Sheet 9321, NSW Department of Mineral Resources). Figure 5 shows the regional geology with the approximate extent of the site delineated in blue.



**Figure 5: Published Regional Geology**

The geology is characterised by the following components:

- The majority of the rail corridor site is underlain by Quaternary Alluvium (Qa), which comprises gravel, sand, silt and clay (yellow shading);
- A small section of the site at the eastern end, in the vicinity of Newcastle Station, is underlain by the Permian-aged Newcastle Coal Measures (Pnl), which in this area comprises the Lambton Subgroup. This formation is characterised by sandstone, siltstone, claystone, coal and tuff (purple shading).

The natural soils are typically overlain by man-made fill materials to varying depths, related to reclamation, historical industrial usage, infrastructure and commercial development.

## 4.2 Acid Sulphate Soils

The risk of the presence of acid sulphate soils is presented on maps prepared by the NSW Department of Land and Water Conservation. The mapped risk zones from the Newcastle risk map is shown in Figure 6.



**Figure 6: Acid Sulphate Soil Risk in the Vicinity of the Project Site**

The mapped acid sulphate soils are characterised as follows:

- High probability of occurrence of acid sulphate soils at depths of between 1 m and 3 m below the ground surface in the eastern portion of the site (i.e. the red shaded area);
- Low probability of occurrence of acid sulphate soils at depths greater than 3 m below the ground surface over the majority of the site (orange shaded area);
- There is a high probability of acid sulphate soil materials at depths between 1 m and 3 m below the ground surface in a narrow area of the site, from the western portion of the Civic Station platform to Worth Place, marginally encroaching the northern portion of the rail corridor in that area.

## 4.3 Coal Mining

### 4.3.1 General

The majority of the subject site lies within the Newcastle Mine Subsidence district, except the portion to the east of Market Street (part of Parcel 14 and Parcel 15) which is not within a district. The development of sites within a mine subsidence district requires Mine Subsidence Board (MSB) approval and may have a number of conditions applied. Development of sites outside of a mine subsidence district do not require formal MSB approval, however still have access the mine subsidence compensation fund and informal MSB requirements may be sought or invoked through the Consent Authority conditions.

There are three major coal seams present beneath the site, all of which have been mined at various locations and times, but not necessarily at the same location. Plans of mine workings, where they exist, are not always accurate as they were prepared before the advent of modern survey techniques. The plans indicate that most of the rail corridor itself is not directly undermined.

The three major coal seams and known history of mining relative to the subject site are discussed in the following sections. Reference may also be made to the geotechnical cross-sections (Drawings 2 and 3) which illustrate the recorded depth and thickness of these coal seams at the site.

### 4.3.2 Dudley Seam

The Dudley Seam is the shallowest of the three major coal seams. It has been encountered at depths ranging from about 10 m to 25 m below the ground surface.

Previously uncharted mine workings in the Dudley Seam have been 'discovered' during foundation construction on a number of sites in the Newcastle inner city area during the past two or three decades, notably in the eastern part of the CBD. The workings are thought to have been convict workings, mined prior to about the 1830s in a typically random layout, making investigation and delineation of the workings difficult.

Available information and MSB records indicate that no mining has occurred within the Dudley Seam in the vicinity of the subject site. The closest location to the subject site where DP is aware of workings within the Dudley Seam is well south of the subject site between Newcomen and Bolton Streets.

### 4.3.3 Yard Seam

The Yard Seam is typically encountered at depths ranging from 25 m to 40 m beneath the Newcastle inner city area. Mining typically occurred in a regular pattern.

The closest location to the subject site where DP is aware of workings in the Yard Seam is to the west of the intersection of Hunter and Darby Streets, where mine workings were encountered during geotechnical investigations for the new courthouse building. MSB has commented that the Yard Seam is unlikely to affect the rail corridor site based its recorded extent, however this should be confirmed by investigation drilling (see Section 6.5.3 and MSB letter Appendix C).

### 4.3.4 Borehole Seam

The Borehole seam is typically found at a depths ranging from of 70 m to 80 m in the vicinity of the site. Some areas bordering the site are underlain by abandoned coal mine workings undertaken in the Borehole Seam by AA Company, based on Record Trace (RT) 566. Abandoned coal mine workings in the Borehole Seam by Hetton Colliery and Delta Collieries are also present to the north of the site.

The mining plans indicate the following:

- Bord and pillar workings, with pillar widths in the range 7 m to 17 m, and bord widths of 3 m to 6 m. The pillars are generally rectangular with typical lengths of 10 m to 35 m, with occasional smaller and larger pillars. Pillar width to height ratios are typically in the range 1.5 to 3.5;
- The workings are shown to be primarily located south of Hunter Street, with some sections extending beneath Hunter Street to the edge of the rail corridor;
- The workings are also present to the north the rail corridor on both sides of Merewether Street;
- There are two areas where the workings cross beneath the rail corridor - one near the intersection of Darby and Hunter Streets and one between Auckland Street and Union Lane. These crossings consist of two bord and intervening pillar;
- A structure described as "AA Coy's Bridge" is shown to cross the site near Crown Street. It is likely that this was a reference to a surface feature present at the time of mining operations.

Based on information on RT566, the thickness of the Borehole Seam is commonly about 6.2 m to 6.4 m but can range from about 5 m to 7 m. Workings were typically undertaken in three stages as follows:

- First Workings – 2.6 m;
- Second Workings – 1.6 m;
- Third Workings – 1.2 m.

Therefore the total worked section ranged up to about 5.4 m in height, however in places only the first or both first and second workings were undertaken in which case the workings section would be 2.6 m or 4.2 m in height respectively. Drawing 4 (Appendix D) shows the recorded extent of mine workings in the Borehole Seam in the vicinity of the site.

#### 4.4 Seismicity

The region is an area of low to moderate seismicity and lies within an intra-plate tectonic region. A significant earthquake occurred in December 1989 (“the Newcastle Earthquake”) which registered approximately 5.6 on the Richter scale, and was assessed to have a return period of about 500 years.

Where deep alluvial soils are present the bedrock motion can be amplified at the surface, and may become a design consideration for certain structures. See Section 6.4 for appropriate seismic factors.

#### 4.5 In-house Geotechnical Records

DP has completed a large number of investigations in and around the subject site, dating back to 1965. The most relevant of these investigation reports are listed in Table 3 and represent the principal sources of geotechnical information for this assessment.

**Table 3: Principal Sources of Geotechnical Information from DP Files**

No	Date	DP Project	Report Title	Field Work (max depth)
1	Jul 1965	00865	Report on Foundation Conditions, Maritime Services Board. Scott and Newcomen Streets, Newcastle	7 bores (6.1 m)
2	Feb 1985	08768	Preliminary Geotechnical Investigation for Redevelopment of Darks Ice Works Site, Wharf Road, Newcastle	3 bores (25.3 m)
3	Jan 1986	09374	Geotechnical Investigation, Proposed Queens Wharf Development	11 bores (9.9 m)
4	Mar 1986	08768-2	Geotechnical Investigation for Stage 1, Development of Darks Ice Works Site, Wharf Road, Newcastle (NSW Government Buildings)	3 CPTs (9.0 m)
5	May 1988	11001	Geotechnical Investigation, Proposed Two Storey Building, 520 Hunter Street, Newcastle	3 CPTs (10.3 m)
6	Nov 1993	16670	Geotechnical and Mine Subsidence Investigation, Proposed Commercial Development, Civic Workshops, Honeysuckle	30 HA bores (2.0 m) 2 cored bores (87.4 m) 15 CPTs (23.9 m) 14 test pits (2.2 m)
7	Dec 1996	18606	Geotechnical Investigation and Contamination Assessment, Proposed Newcastle Station Interchange, Wharf Road and Watt Street, Newcastle	8 bores (23.5 m) 3 groundwater wells
8	Aug 1997	18711	Borehole Seam Investigation, Proposed Holiday Inn, Wharf Road, Newcastle (Crown Plaza)	1 bore (86.9 m)
9	Nov 1998	18862/1	Cone Penetration Testing, Mine Workings and Geotechnical Investigation, Honeysuckle Development Precinct	6 CPTs (38.1 m)
10	Dec 1998	18862/3	Geotechnical Investigation of Abandoned Mine Workings, Wickham and Bullock Island Coal Company, Honeysuckle	4 bores (84.3 m)
11	Sep 2000	18862C	Geotechnical Investigation of Abandoned Mine Workings, Wickham and Bullock Island Coal Company, Honeysuckle	2 bores (84.4 m)
12	Oct 2000	31145	Geotechnical Investigation, Lot 1112 (Honeysuckle House)	5 bores (78.7 m)



**Table 3: Principal Sources of Geotechnical Information from DP Files (Continued)**

No	Date	DP Project	Report Title	Field Work (max depth)
13	Sep 2001	31395	Geotechnical Investigation, proposed Building Development 141 Scott St Newcastle	2 HA bores (2 m)
14	Oct 2001	31159B	Geotechnical and Environmental Investigation, The Boardwalk Development, Workshop Way, Newcastle	3 bores (4.8 m) 12 test pits (4.8 m) 5 CPTs (15.6 m)
15	May 2002	31395A	Geotechnical Investigation, Proposed Building Development 141 Scott St Newcastle	4 bores (4.9 m)
16	Jun 2003	31752	Geotechnical Investigation, Proposed Carrier Main, Merewether Street, Newcastle	6 bores (3.5 m)
17	Feb 2004	31854	Geotechnical Investigation, Mine Subsidence Risk, Proposed Commercial and Residential Building, 200 Hunter Street	3 bores (83.5 m)
18	Sep 2004	39055	Preliminary Acid Sulphate Soil Assessment, 196 Hunter Street Newcastle	2 bores (12 m)
19	Oct 2004	39058	Geotechnical Investigation and Waste Classification. Proposed Polyclinic, 670 Hunter Street, Newcastle	7 bores (4.5 m) 6 CPTs (30.48 m) 5 test pits (3.0 m)
20	Jul 2005	39058A	Geotechnical Investigation, Proposed Polyclinic, 670 Hunter Street, Newcastle	1 CPT (30.5 m)
21	Jun 2006	39543	Geotechnical Investigation, Proposed Mixed Residential/Commercial Development, 123-127 Scott Street Newcastle (8 storey)	2 bores (14.4 m)
22	Mar 2008	39831.01	Geotechnical Investigation, Proposed Development, Lot 230 Honeysuckle Drive (not completed)	6 CPTs (23.4 m)
23	Dec 2009	49314	Geotechnical Investigation, Proposed Grand Central Apartments, 111 Scott Street Newcastle	2 bores (20.6 m)
24	Nov 2011	49799	Mine Subsidence Investigation, Proposed Courthouse Development	10 bores (87.1 m)
25	Feb 2014	81306	Detailed Site Investigation, Former Lynchs Prawns site, 292 Wharf Road, Newcastle	3 bores (5 m)
26	Sep 2015	81716	Targeted Detailed Site Investigation (Contamination), Newcastle Urban Transformation and Transport Program	36 bores (21.3 m) 29 test pits (2.4 m)

## 5. Geotechnical Model

### 5.1 Stratification

A generalised geotechnical model of subsurface conditions has been compiled based on the results of previous tests and broad geological processes.

The subsurface profile may be generalised as a sequence of geotechnical units as described in Table 4. It is noted that the descriptions are simplified to aid interpretation: at a given location a soil unit may include variations of the predominant soil type and sub-layers of other soil types. Not all units will necessarily be present at all locations.

**Table 4: Geotechnical Soil Units (Vertical Profile)**

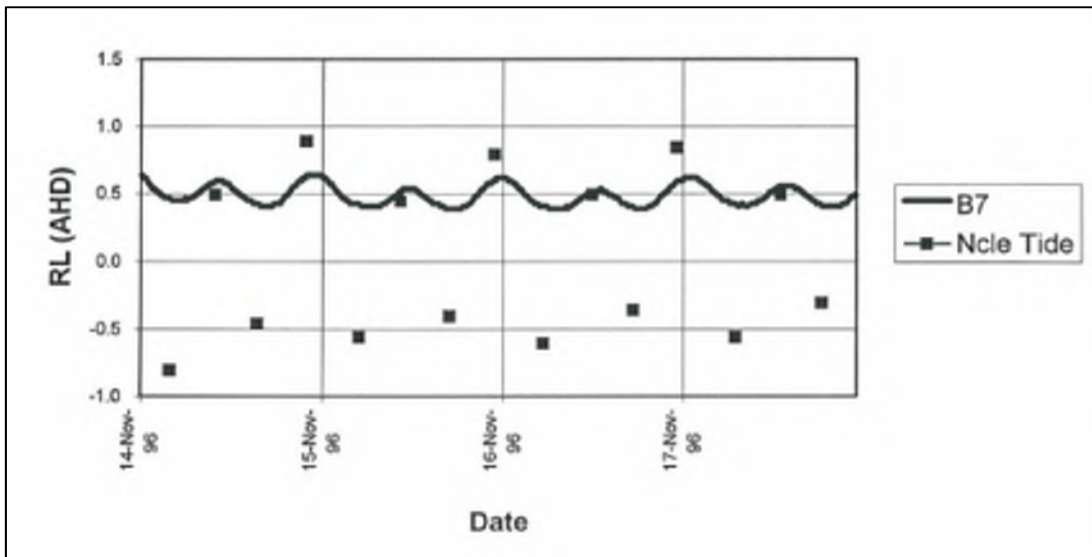
Unit	Primary Name	Description
1	FILL	Materials placed or disturbed by man; typically includes sand, gravel, cobbles, slag and ash. Variable strength and consistency.
2	SAND	Includes sand, silty sand, clayey sand and gravelly sand, naturally deposited under fluvial conditions; typically loose to medium dense, grading to dense at some locations.
3	CLAY	Includes clay, silty clay and sandy clay; typically stiff to hard consistency. Mainly of residual origin but some upper layers may be of estuarine/fluvial origin.
4	BEDROCK	Includes sandstone, siltstone, mudstone, claystone, laminate and coal; typically very low to low strength in the upper weathered profile, increasing to medium to high strength at depth.
4.1	DUDLEY SEAM	Coal seam (bedrock sub-unit) typically 1 m to 1.5 m thick.
4.2	YARD SEAM	Coal seam (bedrock sub-unit) typically 1 m to 1.5 m thick.
4.3	BOREHOLE SEAM	Coal seam (bedrock sub-unit) typically 5 m to 7 m thick.

The typical depths encountered for each of the units in Table 4 are provided in Table 5 which summarises lateral variations between geotechnical zones.

### 5.2 Groundwater

Groundwater is typically encountered at depths ranging from 1 m to 2.5 m below ground level. Due to the proximity of the site to Newcastle Harbour, a subdued tidal variation would be expected, such as recorded at the Newcastle Interchange site (see Figure 7).

It is noted that groundwater levels are transient and will also vary with climatic conditions, surface drainage features and soil permeability. During or following periods of intense or prolonged rainfall, groundwater levels could rise close to the ground surface level.



**Figure 7: Tidal Groundwater Level Variations at Newcastle Interchange (Project 18606)**

### 5.3 Lateral Variations

Drawings 2 and 3 show a geotechnical cross-section through the site, from west to east, based on the geotechnical data extracted from the previous investigation reports. The stratification has been simplified in terms of the Units listed in Table 4 and should be regarded as indicative. It should be noted that the layer boundaries have been interpolated between test locations for illustration purposes and may not represent actual boundaries.

Further, a number of test locations have been projected onto the section from outside the subject site, hence may not reflect true elevations of layer boundaries at the section location. Lateral variations in the soil profile from north to south should also be anticipated.

As indicated by the cross-section, the sub-surface profile also varies laterally from one end of the site to the other end. Notably the depth to bedrock generally increases to the west, with the shallowest depth to rock recorded in the vicinity of Queens Wharf.

To capture the lateral variation in subsurface conditions, the site has been divided into geotechnical zones as shown on Drawing 1. A summary of the generalised geotechnical model for each zone is presented in Table 5, which also notes the corresponding Parcels of land.

**Table 5: Geotechnical Zones (Lateral Variation of Sub-surface Conditions)**

<b>Zone</b>	<b>Parcels</b>	<b>General Subsurface Profile</b>
A	1, 2	<ul style="list-style-type: none"> <li>Unit 1: uncontrolled fill to about 3 m/4 m depth;</li> <li>Unit 2: loose to medium dense sands to about 9 m/13 m depth;</li> <li>Unit 3: stiff to very stiff clays to about 20 m/28 m depth;</li> <li>Unit 4: sandstone or siltstone from about 20 m/28 m depth, initially very low strength; coal (Yard Seam) at 30 m/35 m depth.</li> </ul>
B	3, 4, 5, 6, 7, Part 8	<ul style="list-style-type: none"> <li>Unit 1: uncontrolled fill to about 1 m/3 m depth;</li> <li>Unit 2: loose to medium dense sands to about 6 m/13 m depth;</li> <li>Unit 3: stiff to very stiff clays to about 8 m/22 m depth;</li> <li>Unit 4: sandstone, siltstone or laminate from about 8m/22 m depth, initially very low strength; coal (Dudley Seam) at 20 m/22 m depth.</li> </ul>
C	Part 8, 9, 10, 11, 12, 13, Part 14	<ul style="list-style-type: none"> <li>Unit 1: uncontrolled fill to about 0.8m/3m depth;</li> <li>Unit 2: loose to medium dense sands to about 6 m/14 m depth;</li> <li>Unit 3: stiff to very stiff clays to about 7 m/14 m depth - not present at all locations;</li> <li>Unit 4: sandstone, claystone, mudstone or laminite, from 6 m/14 m depth, initially very low strength; coal (Yard Seam) at 19 m/26 m depth.</li> </ul>
D	Part 14, Part 15	<ul style="list-style-type: none"> <li>Unit 1: uncontrolled fill to about 0.5 m/4 m depth;</li> <li>Unit 2: loose to medium dense sands to about 3 m/5 m depth - not present at all locations;</li> <li>Unit 3: clays generally not present;</li> <li>Unit 4: sandstone or siltstone from 3 m/5 m depth, initially very low strength; coal (Dudley Seam) at 9 m/15 m depth.</li> </ul>
E	Part 15	<ul style="list-style-type: none"> <li>Unit 1: uncontrolled fill to about 4 m/8 m depth;</li> <li>Unit 2: loose to medium dense sands to about 5 m/20 m depth;</li> <li>Unit 3: upper layer of firm silty or sandy clay to 10 m/12 m depth; lower layer of stiff to very stiff clays to about 20 m/22 m depth (separated by Unit 2) - only present in north-eastern part of site (interchange area);</li> <li>Unit 4: sandstone or siltstone, initially very low strength from 4 m/22 m depth; coal (Yard Seam) likely present at about 25 m/30 m depth but not confirmed.</li> </ul>

Notes to Table 5:

Depths are approximate, as measured from the ground surface at the time of investigation.

## 6. Comments

### 6.1 Excavation Conditions and Support

Excavation through fill materials, natural soils (sands and clays) and the upper zones of weathered rock (if encountered) is expected to be relatively straightforward using conventional excavation equipment such as backhoes and excavators. The fill is predominantly sandy in nature, however, in some areas the fill may include slag, cobbles or other larger inclusions that could impede excavation, however, their occurrence is not expected to be widespread. Zone E has the deepest areas of fill (within the former Newcastle Station site) thought to have resulted from an infilled/reclaimed channel.

Due to the presence of a sandy upper soil profile and relatively shallow groundwater across much of the site, excavations will need to be either battered (where there is sufficient space) or fully supported by shoring / retaining systems - these may be temporary or permanent support measures depending on the application. The type of support will be dependent on proximity to nearby structures and the duration for which the excavation will remain open.

It is recommended that all excavations adjacent to existing buildings and services should be fully supported in order to minimise lateral deflections. Cantilever type walls are not recommended for such situations as deflections typically associated with such walls can lead to damage of adjacent structures. This includes un-propped sheet pile walls.

If permanent retaining systems are required for a basement structure or similar, suitable methods would include contiguous piles, secant piles or soldier piles with shotcrete panels. These are laterally supported during excavation using soil nails or anchors extending below the adjacent properties or buildings, or props which are internal to the excavation. Permanent support after construction is usually provided by the floor slabs acting as struts.

Design parameters will depend on specific soil conditions at individual sites. The type of proposed development and extent of existing data will determine the scope of additional specific site investigation required for the detailed design of support measures.

Preliminary assessment of batter slopes may be based on the values provided in Table 6, however, these should be confirmed by site-specific investigation for individual developments.

**Table 6: Preliminary Temporary and Permanent Batter Slopes**

<b>Stratum</b>	<b>Short Term (Temporary)<sup>(1)</sup></b>	<b>Long Term (Permanent)<sup>(2)</sup></b>
Fill - uncompacted (assumed existing state)	2H:1V	2.5H:1V
Fill - compacted	1.5H:1V	2H:1V
Sand - above the water table	2H:1V	2.5H:1V
Clay - above the water table (stiff or better)	1.5H:1V	2H:1V
Rock – very low strength <sup>(3)</sup> (Class V sandstone / Class IV siltstone)	1H:1V	1.5H:1V

Notes to Table 6:

1. Above values are for a maximum vertical depth/height of 3 m. Greater depths to be specifically assessed, and may require additional measures for stability and drainage.
2. Long term batter slopes forming part of a development are generally expected to be of limited depth/height.
3. Excavations deep enough to penetrate rock are generally not anticipated; batters in rock are dependent on jointing and would require confirmation at time of excavation.

Excavations in soil below the water table are expected to require shoring or retention to maintain stability.

## 6.2 Preliminary Footing Options for Development

### 6.2.1 Shallow Footings

Where the proposed developments include multi storey structures, high column loads are anticipated and it is expected that shallow footings would not be suitable for the support of structural loads over most of the site due to the presence of filling, loose to medium dense sand and some clay to depths of approximately 3 m to greater than 20 m.

Shallow footings could be considered for lightly loaded structures; however the effect of potential settlement due to weak alluvial soils would need to be considered.

Table 7 shows preliminary design parameters for shallow pad or strip footings founded on each of the main geotechnical units.

**Table 7: Preliminary Design Parameters for Pad or Strip Footings**

<b>Stratum</b>	<b>Ultimate Bearing Pressure (kPa)</b>	<b>Serviceability Bearing Pressure (Working Loads) (kPa)</b>
Fill - uncompacted (assumed existing state)	NA	NA
Fill – cohesive - compacted	600	120
Fill – granular - compacted	1000	200
Sand - loose to medium dense	750	150
Clay – stiff to very stiff	1000	200
Clay – hard / extremely weathered rock	2000	400
Rock – very low strength (Class V sandstone / Class IV siltstone)	3000	1000

Notes to Table 7:

1. The design bearing pressures should be adjusted to account for weaker layers below the bearing layer if present.
2. Ultimate Values occur at large settlements (> 5% of minimum footing dimension).
3. Serviceability / Max Allowable end bearing to cause settlement of < 1% of minimum footing dimension.

Raft slabs apply a spread load to the foundation, typically with concentrated pressures on edge beams and internal beams. The relative distribution of foundation pressure depends primarily on the slab stiffness. Raft slabs generate a deeper stress field hence settlement needs to be considered, particularly if any soft or weak layers are present in the subsurface profile. Applied pressure and settlement are linked via the vertical modulus of subgrade reaction ( $k_v$ ).

Edge and internal footing beams should not apply a local bearing pressure exceeding the values in Table 7 for pad and strip footings. The overall allowable bearing pressure for the slab will be governed by tolerable settlement. Typically a “spread” applied pressure in the order of 20 kPa to 30 kPa would be feasible where founded over good ground conditions.

In general, footings should not be founded in uncontrolled fill. In some cases it may be possible to found lightly-loaded structures that are not sensitive to settlement in fill, subject to prior geotechnical investigation and analysis.

The footing design values for individual structures should be refined when the location, type of structure, loads and dimensions are known. This would require specific investigation at the structure’s location to determine the soil profile for settlement and bearing capacity analysis.

During construction the design bearing pressures should be confirmed by geotechnical inspection and testing.

## 6.2.2 Deep Footings

Deep foundation systems would be appropriate for the support of major structural loads and where the depth of uncontrolled fill or excessive settlement precludes the use of shallow footings. Piles could potentially be founded either in medium dense to dense sand, stiff or better residual clay, or bedrock. The suitability of founding piles in the upper soil strata would depend on the ground conditions at the individual site, proposed foundation loads, settlement tolerances of proposed structures and the relative cost benefit of installing in the upper soil profile versus the underlying bedrock.

A number of deep footing options are summarised and discussed below:

**Uncased Bored Piles** - Due to the shallow water table and the risk of collapsing conditions in water-charged sand, conventional uncased bored piles are not expected to be suitable for the majority of this site. They could be considered in areas of shallow bedrock, however the risk of shallow groundwater and potentially high water inflow rates would need to be assessed.

**Driven Piles** - Driven piles could be considered, however vibration impacts during installation may impact on neighbouring structures and would need to be assessed. Furthermore, due to the presence of uncontrolled filling of variable depth across much of the site, there may be a risk of premature pile refusal or damage due to obstructions in the filling. Pre-drilling pile holes through the filling could be considered to mitigate this risk.

**Screw Piles** - Screw piles could be considered for light to moderate structural loads. It is noted that screw piles derive their capacity from a combination of geotechnical strength of the founding stratum and structural strength of the pile helix. Specific geotechnical design should be undertaken. Screw piles will typically undergo more settlement than equivalent-sized fully formed piles. The presence of uncontrolled filling may present a risk of premature pile refusal or damage due to obstructions in the filling.

**Cased Bored / Continuous Flight Auger (CFA) / Screw Cast Concrete Piles** - These pile types are considered to be the most suitable options for support of structural loads at this site, as they can be formed within saturated and collapsing soil conditions, as is expected to be encountered over the majority of the site. It should be noted that for CFA piles, decompression can occur in sands whereby excess material is 'sucked' into the auger and removed to the surface, resulting in surface depression. Piles should be installed by experienced operators, using suitably sized piling rigs, monitoring equipment and supervision.

The preliminary design parameters for bored or CFA piles are shown in Table 8 for the anticipated range of soil and rock strata at the site. The capacity of driven piles is typically higher, relative to equivalent dimensions, especially if driven into rock and may be governed by the structural capacity of the piled section used.

Pile design, installation and testing should be undertaken with reference to the Piling code (Ref 1).



**Table 8: Preliminary Design Parameters for Piles (Bored or CFA Piles)**

Stratum	Ultimate		Serviceability (Working Loads)	
	End Bearing (kPa)	Shaft Adhesion (kPa)	End Bearing (kPa)	Shaft Adhesion (kPa)
Fill – cohesive – compacted	700	-	120	-
Fill – granular – compacted	1000	-	200	-
Sand – medium dense $\geq$ 5 m depth	1750	25	700	10
Clay – stiff to very stiff	900	40	350	15
Clay – hard / extremely weathered rock	1800	80	600	50
Rock – very low strength (Class V sandstone / Class IV siltstone)	4000	200	1200	100
Rock – low strength (Class IV sandstone / Class III siltstone)	10000	500	2500	250

Notes to Table 8:

1. The design bearing pressures should be adjusted to account for weaker layers below the bearing layer if present.
2. Piles founded on coal or claystone should be avoided due to potential for softening and excessive settlement.
3. Ultimate Values occur at large settlements ( $>$  5% of minimum pile diameter / width).
4. Design geotechnical strength ( $R_{a,g}$ ) should initially be based on a strength reduction factor of  $\phi_g = 0.40$ .
5. Shaft adhesion values based on a shaft roughness of R2 or better.
6. Serviceability / Max Allowable end bearing to cause settlement of  $<$  1% of minimum pile diameter / width.
7. AS 2159- 2009 (Ref 1) requires that the contribution of the shaft from ground surface to 1.5 times pile diameter or 1 m (whichever is greater) shall be ignored.

It should be noted that the above design parameters given in Table 8 are primarily for bored piles with clean sockets and bases: specific cleaning buckets and grooving tools should be used in construction. The preliminary design of driven piles may also be based on the above parameters, however in practice, they are usually driven to a specified 'set' to achieve the required load or 'refusal'. In the latter case the pile capacity may be governed by the structural capacity of the pile in axial compression or bending. Pile installation could be affected by the possible presence of obstructions within existing fill such as concrete, steel and other coarse inclusions. The available information suggests that this will not be a widespread problem however the possibility cannot be precluded.

If piles are installed through deep uncontrolled fill there will be the potential for negative shaft adhesion (downdrag) loads on the pile due to on-going creep settlement of the fill. In some cases this can significantly reduce the available load capacity of piles to support of the structural loads.

For piles in tension, the shaft adhesion parameters should be reduced by 25%.

During construction the design bearing pressures should be confirmed by geotechnical inspection and / or quality assurance testing relevant to the type of pile and method of installation.

### 6.3 Acid Sulphate Soils

With reference to Section 4.2, the site contains two categories of potential acid sulphate soils:

- Geotechnical Zones A to C generally have a low probability of occurrence of acid sulphate soils at depths greater than 3 m below the ground surface, although the western end (Zone A) includes a high probability zone that marginally encroaches the northern boundary of the site;
- Geotechnical Zones D and E (eastern end of site) have a high probability of occurrence of acid sulphate soils at depths of between 1 m and 3 m below the ground surface.

Previous investigations carried out in the Honeysuckle and Newcastle area have indicated that potential acid sulphate soils (PASS) are generally present in the near-surface fine-grained natural soils (i.e. silts and clays), however, the overlying fill materials are usually not acid sulphate soils. Natural sands (particularly silty sands) may also be acid sulphate soils, but if so, tend to have less acid generation potential.

Recent experience at nearby sites indicates that acid sulphate soils at this site are unlikely to be strongly acid sulphate and can be readily managed during construction using standard procedures (such as liming) in accordance with the relevant guidelines.

Construction activities that will potentially disturb acid sulphate soils include:

- Excavations that extend below fill into natural soils, such as basement excavations, remediation activities (notably Zone E), and deep services trenches; the excavated material will be exposed to oxidation ex situ;
- Dewatering during construction to aid earthworks, excavation and construction activities that lowers the water table within natural soils and exposes them to oxidation in situ.

It is recommended that a site-specific acid sulphate soils management plan (ASSMP) should be developed for the project and implemented where the above activities are undertaken. It is noted that the ASSMP may include a requirement for groundwater treatment / management related to dewatering activities or leachate generated by stockpiles of PASS.

### 6.4 Seismic Factors for Design

The earthquake code (AS1170.4-2007, Ref 2) provides design factors based on location (earthquake risk) geotechnical conditions.

The Hazard Factor (Z) for Newcastle is 0.11 as given in Table 3.2 of AS1170.4. This is the bedrock acceleration coefficient with an annual probability of exceedance of 1 in 500.

For the whole subject site (Geotechnical Zones A to E) the site sub-soil class is assessed to be Class C<sub>e</sub> – “shallow soil site”, with reference to Table 4.1 of AS1170.4.

## 6.5 Mine Subsidence Assessment

### 6.5.1 Areas Potentially Affected by Mine Subsidence

This assessment assumes that only workings in the Borehole Seam could affect the site, notwithstanding MSB comments that the extent of the Yard seam and the possibility of shallower unmapped workings should be assessed (see Section 6.5.3).

In the event of mine collapse or pillar crush in the Borehole Seam, mine subsidence would occur. Although the majority of the subject site is not directly undermined, areas of the site are within the potential zone of influence if subsidence did occur. The zone of influence is defined by the 'angle of draw', a line taken from the edge of the workings to the ground surface at a designated angle. The accepted value of this angle that is routinely adopted for the Newcastle area is 26° from vertical (1H:2V).

Based on the plan location of the Borehole Seam workings, it can be shown that the majority of the rail corridor site could be potentially affected by mine subsidence (i.e. within the angle of draw). To aid interpretation, Drawing 4 shows the areas of the site that lie beyond the angle of draw and hence would NOT be affected by mine subsidence (green hatched areas). These are:

- A small area in the north-west corner of the site being part of Parcel 1 (in Geotechnical Zone A);
- The southern portions of Parcels 5 and 6 (in Geotechnical Zone B);
- A small area in the north-eastern part of Parcel 12 (in Geotechnical Zone C);
- The eastern half of Parcel 14 and all of parcel 15 (in Geotechnical Zones D and E), which is the largest contiguous area of the site that lies beyond the angle of draw.

The remainder of the site and most of the immediately adjacent areas are either directly undermined or potentially within the angle of draw in the event of mine subsidence.

### 6.5.2 Stability of Borehole Seam

In Drawing 4 the blue dashed line represents the 'reverse angle of draw' relative to the site boundary. All mine workings that lie inside this area have the potential to affect the site in the event of subsidence. Preliminary stability analyses have been carried out for all coal pillars within this zone, a total of 98 pillars. The results of the analyses are shown in the tables in Appendix B.

The analysis adopted a working section height of 5.4 m, and pillar dimensions were measured off RT566. The pillars were grouped in three 'panels'. The results indicated the following in regard to mine stability:

- The factor of safety against failure of individual pillars ranged from 1.33 to 3.36;
- The probability of failure of individual pillars ranged from  $3 \times 10^{-2}$  to  $2 \times 10^{-14}$ ;
- 'Panel' factors of safety, which account for the ability of smaller pillars to shed load to larger adjacent pillars, ranged from 2.18 to 2.49;
- The probability of failure of the panels ranged from approximately  $1 \times 10^{-7}$  to  $1 \times 10^{-9}$ ;
- The panel extraction ratio ranged from 0.35 to 0.41.

It is noted, however, that due to the proximity of the smallest pillars to the unmined 'barrier' of coal which is present beneath the site, the analysis likely underestimates the actual factors of safety in this area.

Based on the review of available information, and the results of the preliminary pillar stability analysis, it is DP's opinion that there is some risk, albeit low, of mine subsidence affecting significant parts of the subject site (i.e. the parts of the site not shown in green hatching on Drawing 4).

It is noted that the available data indicated no mine workings within the Dudley Seam or Yard Seam in the vicinity of the subject site. Accordingly it is assessed that these seams do not pose a risk of mine subsidence at the site.

### 6.5.3 Consultation with the Mine Subsidence Board

A meeting was held with the MSB at their Newcastle office on 8 January 2016. Attendees were Ian Bullen and Peter Evans of the MSB, and Stephen Jones and Scott McFarlane of DP. A letter was subsequently received from the MSB on 15 January 2016 (see Appendix C for a copy).

The following summarises the outcomes of the MSB meeting and their subsequent letter:

- Each proposed building is assessed separately and specific development guidelines cannot be provided until specific plans are presented to the MSB for consideration;
- The section of the rail corridor within the Newcastle Mine Subsidence district is nominated as "Guideline No. 9" by MSB which essentially allows buildings of up to three storeys and 30 m long without assessment of mine subsidence risk;
- Buildings over three storeys will require investigation to assess mine subsidence risk and determine mine subsidence site parameters. The investigations are likely to include exploratory drilling and would aim to:
  - verify the limit of workings in the Borehole and Yard seams;
  - verify the location of workings that cross over the rail corridor;
  - determine the possibility of unmapped workings above the Borehole seam.
- The mine subsidence risk analysis should include sensitivity / risk review and consider potential subsidence scenarios including a worst case;
- If grouting is required the MSB would likely request a grouting plan for approval and a verification report upon completion of the works;
- Where the MSB accepts mine subsidence design parameters, it would likely request an "Impact Statement" that provides details of the structures, risk assessment outcomes and the proposed mitigation measures;
- When considering the number of storeys (and hence risk and repair costs) the MSB include basements as a storey. For example, a proposed 30 m high building (potentially 10 storeys) plus two levels of basement would be regarded by MSB as a 12 storey structure;
- For significant structures, the recommendations need to go to a MSB Board meeting; these are held monthly but the response time depends on the number of applications before the Board.

Based on the above a preliminary 'first pass' assessment has been undertaken taking into account the location of mine workings and the potential maximum building heights from the concept plan layout. The findings are presented in Section 6.5.5.

The 'Newcastle Mines Grouting Fund', which commenced in November 2015, was also discussed at the meeting. The fund is managed by the Hunter Development Corporation (HDC). The MSB's role runs in parallel to HDC in relation to remedial design, delivery and validation. The fund underwrites grouting costs that exceed a designated cap, based on mine category and site area. This provides financial certainty for developers in that if grouting costs exceed the cap the fund will pay the difference. It is noted that the determination of grouting costs excludes investigation and consultant fees. Further information is available by following this link to an HDC brochure:

[http://www.hdc.nsw.gov.au/sites/default/files/HDC\\_Newcastle-Mines-Grouting-Fund%20brochure.pdf](http://www.hdc.nsw.gov.au/sites/default/files/HDC_Newcastle-Mines-Grouting-Fund%20brochure.pdf)

The mine categories are shown in the MSB drawing "Newcastle City Centre Area Mine Subsidence Categories included in Appendix C. It is noteworthy that the rail corridor site itself does not have a category assigned, presumably because development of the rail corridor was not envisaged.

The current fund rates published by HDC are also included in Appendix C. The status of the site (or parts of the site) in relation to the Newcastle Mines Grouting Fund is unclear as the rail corridor is not assigned a category. MSB has advised that the HDC should be consulted on this matter.

#### **6.5.4 Preliminary Subsidence Parameters**

A preliminary assessment of subsidence parameters was undertaken using the method of Holla (1987). In the event of subsidence in workings adjacent to the site and in the absence of grouting or other remedial measures, the subsidence effects would be worst at the site boundary.

Estimated preliminary subsidence parameters for the un-grouted site would be:

- Subsidence: 230 mm
- Tensile strain: 3 mm/m
- Tilt: 10 mm/m

It is unlikely that buildings could be economically designed to withstand the above movements. If the associated risk of occurrence is considered unacceptable, remedial grouting would likely be required to reduce the subsidence parameters to levels that could be managed through structural design. While this depends on the sensitivity of the specific structure to movement, based on previous experience typical post-grouting subsidence parameters accommodated by designed are:

- Subsidence: 50 to 100 mm
- Tensile strain: 0.5 to 2 mm/m
- Tilt: 5 to 6 mm/m

### 6.5.5 Preliminary Estimated Grouting Volumes

A preliminary estimate of potential grouting has been made adopting a conservative scenario and assuming that structures might be built to the maximum permissible height under the zoning. Although the preliminary estimate is based on grouting within the angle of draw, it should be noted that in some cases it may be beneficial to grout workings beyond the angle of draw where this is shown to prevent a more global 'pillar run' that could affect the site.

When the relevant constraints are overlain: angle of draw, mine categories of adjoining mined areas, and adjacent proposed land use that would allow multi-storey buildings, the following is indicated:

- Grouting of workings east of Wolfe Street and west of Union Lane is unlikely to be necessary;
- Grouting of workings west of Wright Lane (Parcels 3 and 4) *may or may not* be necessary, considering the beneficial effect on global stability of nearby grouting of sites in Honeysuckle, but has been included in preliminary estimates in case;
- The remaining central area (Parcels 8 to 14) *may* require grouting, subject to the findings of detailed investigation, modelling and the specifics of individual proposed structures;
- The areas adjoining the central area are mainly Fund Category A and Category B and some Category C areas. Actual categories, however, will depend on MSB and/or HDC responses in relation to the rail corridor.

Drawing 5 indicates the areas of mine workings that *may* require grouting adjacent to Parcels 3 and 4 and 8 to 14 as noted above. The total volume of voids in the workings may be approximately estimated, however, it depends on the accuracy of the plan in terms of bord widths, worked seam height and degree of roof collapse. If grouting of workings beyond the angle of draw is later determined to be required, it has been assumed that these areas would be offset by not requiring grouting of all voids within the angle of draw.

The estimated 'worst case' plan area of the workings that may require grouting is about 13,600 m<sup>2</sup>. Adopting an estimated average worked height of 4.8 m the total volume of voids is estimated to be in the order of 65,000 m<sup>3</sup>.

If Parcel 12 is limited to a three-storey structure, remedial grouting in the vicinity of this land would be unlikely to be needed. This would potentially reduce the volume of grout required by about 9000 m<sup>3</sup> (to about 56,000 m<sup>3</sup> in total).

If the Grouting Fund applies to these parcels, and the parcel area is taken as the site area, there would be a cap on grouting costs. If grouting costs exceeds the relevant cap amount the fund would pick up the difference. If the grouting costs are less than the cap amount then no claim can be made on the fund.

It should be noted that the areas that may require grouting lie beneath properties/buildings outside the corridor and public roads. This might create legal, access and logistical challenges to undertaking the work. It may be necessary to make extensive use of angled boreholes to both locate the workings and undertaking the grouting. These constraints may have additional and uncertain cost implications, hence it is recommended that a contingency be allowed for.

### **Important Assumptions and Limitations related to Grouting Volumes**

It is not certain at this early stage whether grouting of workings will be required at all. Detailed investigations and modelling may indicate that potential subsidence has a low risk of occurrence or can be managed through structural design (although this will depend to some extent on the specifics of proposed structures).

The foregoing estimates of grout volumes are preliminary and conservative and are based on a number of assumptions derived from experience. Assumptions and limitations include:

- The layout of the mine workings is assumed to be approximately the same as recorded on the mine plans, such that only the Borehole Seam could influence the site;
- Full grouting of the voids, where the development footprint is within the angle of draw, comprising grouting to at least the top of coal seam and possibly to the roof;
- Where grouting is required the assumed plan extent is the angle of draw, however grouting beyond the angle of draw is a possible requirement for global stability and prevention of a 'pillar run' that could affect the site;
- Low strength (1 MPa) grout will be acceptable;
- The structures could be designed to accommodate subsidence parameters of a similar order to previous developments subject to grouting;
- Access to adjacent properties and roads will be both permissible and feasible for the works. Angled drilling extending from the rail corridor to beyond the site boundary will also be permitted;
- Uncertainties related to the work and potential costs include:
  - o Actual ground conditions, mine layout, extent of mine rubble and volume of voids requiring grout;
  - o Contractor market rates at time of work;
  - o Whether the work is done as a single package for the whole site or separate packages for individual parcels of land or developments;
  - o Final MSB requirements for specific developments;
  - o The applicability of the Grouting Fund and the designated rates for the development sites.
- Additional investigations and numerical modelling will be required to confirm the need for grouting and the design details.

## 6.6 Suitability of the Site for Development

The rail corridor site is considered to be geotechnically suitable for the proposed residential and commercial type developments. Preliminary geotechnical design parameters are provided in this report to facilitate preliminary planning and assessment of feasibility of specific proposed developments.

Prior to the detailed design of any proposed developments specific geotechnical investigation will be required appropriate to the nature of the proposed development. Investigation and design will need to consider some or all of the following matters:

- The presence and depth of uncontrolled fill;
- The presence, depth and likely variation in groundwater levels;
- Appropriate treatment and management of acid sulphate soils where encountered;
- Excavation conditions and shoring requirements, if relevant;
- Earthworks procedures and whether any ground improvement measures (such as removal and compaction) are required, taking into account the requirements of the Remediation Action Plan (RAP);
- Suitable footing options and design parameters for support of structures;
- Requirements relating to potential mine subsidence, where relevant.

It is expected that with suitable investigation, design and construction in accordance with accepted engineering practice, the above matters can be readily managed.

## 7. Concurrent Contamination Investigations

DP has conducted concurrent contamination investigations within the surplus Newcastle Rail corridor between Newcastle Station in the east and Worth Place in the west.

The investigations have comprised the following:

- Brief review of previous investigations conducted within the site;
- Review and revision of the sampling, analysis and quality plan for assessment of contamination at the site;
- Subsurface investigation and sampling at systematic and targeted locations;
- Assessment of soil and groundwater contamination within the site, targeting the locations and contaminants of concern on the basis of the historical landuse;
- Assessment of remediation strategies/options;
- Preparation of a draft RAP, outlining the strategies, procedures and responsibilities for remediation of identified contamination.



The results of the investigation indicated the following with respect to contamination at the site:

- The presence of hydrocarbon contamination in soil associated with the former gas works in the eastern portion of the site (i.e. current bus interchange);
- The presence of hydrocarbon contamination in near-surface soils in the vicinity of Newcastle Station and the Newcastle Signal Box as a results of historical train use;
- The presence of heavy metal-impacted near-surface soils to the west of Civic Station, likely to be as a result of impacted historical filling and/or historical ash dumping in the area;
- The presence of minor soil contamination in filling across the site, likely due to historical use as a railway and historical filling of the site;
- Contamination in soil at the site should be addressed due to the potential for impacts on human health and the environment, including groundwater impact.

At this stage the proposed remediation strategy for the site is for localised removal and/or remediation of impacted soils, with capping of the remainder of the site with structures, pavements or soils. This strategy has been documented in the RAP (Ref 4).

The contamination assessment and RAP will be subject to review and approval by Graeme Nyland, a NSW EPA accredited Auditor.

## 8. References

1. Australian Standard 2159-2009, "Piling – Design and Installation", Standards Australia.
2. Australian Standard 1170.4-2005, "Structural design actions, Part 4: Earthquake actions in Australia", Standards Australia.
3. Pells, Mostyn & Walker (1998), "Foundations on Sandstone and Shale in the Sydney Region", Australian Geomechanics Society, December 1998.
4. Douglas Partners Pty Ltd, "Remediation Action Plan, Newcastle Urban Transformation and Transport Program", Project 81716.00.R.009 (Rev 0), March 2016.

## 9. Limitations

Douglas Partners Pty Ltd (DP) has prepared this report (or services) for this project at in accordance with DP's proposal NCL 150577 dated 30 September 2015. The work was carried out under UrbanGrowth NSW contract 2724/14, dated 4 May 2015. This report is provided for the exclusive use of UrbanGrowth NSW for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction. The scope for work for this investigation/report did not include the assessment of surface or sub-surface materials or groundwater for contaminants, within or adjacent to the site. Should evidence of filling of unknown origin be noted in the report, and in particular the presence of building demolition materials, it should be recognised that there may be some risk that such filling may contain contaminants and hazardous building materials.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the (geotechnical / environmental / groundwater) components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

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**Douglas Partners Pty Ltd**

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## **Appendix A**

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About This Report

# About this Report

# Douglas Partners



## Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

## Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

## Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

## Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

## Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

# *About this Report*

## **Site Anomalies**

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

## **Information for Contractual Purposes**

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

## **Site Inspection**

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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## **Appendix B**

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### Mine Subsidence Stability Assessment

**Table B1 - Pillar Stability Analysis - Measured Pillar Dimensions - Panel 1**



Mine Workings - RT566 - Borehole Seam  
 Project: Newcastle Rail Corridor  
 Location: Newcastle  
 Analysis Assumptions: Pillar dimensions from RT.

Client: UrbanGrowth NSW  
 Date: 2 December 2015  
 Sheet: 1

Project No: 81720.01

Pillar Id:	Comment	Depth D (m)	Seam Thickness (m)	Working Section H (m)	Pillar Height Section H (m)	Unit Weighth γ (kN/m³)	Pillar Details			Roadway Details		Extract. Ratio (%)	Pillar Area m²	Total Area m²	Width/ Height Ratio Wp/H	Width Modifier		Pillar Stress (Tributary) (MPa)	Pillar Load (Tributary) MN	Abut (A) Yield (Y) (?)	Shed Load MN	Lodad Received MN	Pillar Stress ("Yield") (MPa)	Pillar Stress ("Abut") (MPa)	Power Law																
							Width Wp (m)	Length Lp (m)	Internal Angle (°)	Wr (m)	Lr (m)					⊖₀	⊕								Strength (MPa)	"Ultimate" Load MN	FoS	Probability of Failure													
1		77.0	6.4	5.4	5.4	25	12.9	28.1	90.0	3.5	2.3	27.3	362.5	498.6	2.4	1.371	1.000	2.65	960							7.69	2786	2.90	1.4E-11												
2		77.0	6.4	5.4	5.4	25	14.6	27.8	90.0	2.8	2.8	23.8	405.9	532.4	2.7	1.311	1.000	2.53	1025							8.19	3323	3.24	1.1E-13												
3		77.0	6.4	5.4	5.4	25	14.2	36.2	90.0	3.0	2.8	23.4	514.0	670.8	2.6	1.437	1.000	2.51	1291							8.07	4149	3.21	1.7E-13												
4		77.0	6.4	5.4	5.4	25	10.6	26.1	90.0	4.2	3.4	36.6	276.7	436.6	2.0	1.422	1.000	3.04	840							6.95	1924	2.29	9.9E-08												
5		77.0	6.4	5.4	5.4	25	11.8	27.9	90.0	3.3	3.4	30.3	329.2	472.6	2.2	1.406	1.000	2.76	910							7.34	2418	2.66	4.9E-10												
6		77.0	6.4	5.4	5.4	25	11.5	36.6	90.0	3.4	2.8	28.3	420.9	587.1	2.1	1.522	1.000	2.68	1130							7.25	3051	2.70	2.7E-10												
7		77.0	6.4	5.4	5.4	25	12.1	28.7	90.0	3.0	2.9	27.2	347.3	477.2	2.2	1.407	1.000	2.65	919							7.44	2583	2.81	5.3E-11												
8		77.0	6.4	5.4	5.4	25	11.5	29.0	90.0	3.2	3.0	29.1	333.5	470.4	2.1	1.432	1.000	2.72	906							7.25	2417	2.67	4.1E-10												
9		77.0	6.4	5.4	5.4	25	11.2	27.5	90.0	3.6	3.4	32.7	308.0	457.3	2.1	1.421	1.000	2.86	880							7.15	2203	2.50	4.6E-09												
10		77.0	6.4	5.4	5.4	25	11.9	29.8	90.0	3.9	3.2	32.0	354.6	521.4	2.2	1.429	1.000	2.83	1004							7.38	2616	2.61	1.0E-09												
11		77.0	6.4	5.4	5.4	25	11.8	28.5	90.0	4.9	3.7	37.5	336.3	537.7	2.2	1.414	1.000	3.08	1035							7.34	2470	2.39	2.4E-08												
12		77.0	6.4	5.4	5.4	25	13.1	30.6	90.0	4.7	3.4	33.8	400.9	605.2	2.4	1.400	1.000	2.91	1165							7.75	3105	2.67	4.4E-10												
13		77.0	6.4	5.4	5.4	25	10.1	28.2	90.0	5.3	3.6	41.8	284.8	489.7	1.9	1.473	1.000	3.31	943							6.78	1932	2.05	3.1E-06												
14		77.0	6.4	5.4	5.4	25	9.9	30.8	90.0	5.5	3.7	42.6	304.9	531.3	1.8	1.514	1.000	3.35	1023							6.72	2048	2.00	6.1E-06												
15		77.0	6.4	5.4	5.4	25	9.8	27.8	90.0	5.7	3.3	43.5	272.4	482.1	1.8	1.479	1.000	3.41	928							6.68	1820	1.96	1.1E-05												
16		77.0	6.4	5.4	5.4	25	10.9	30.6	90.0	5.7	3.8	41.6	333.5	571.0	2.0	1.475	1.000	3.30	1099							7.05	2352	2.14	8.4E-07												
17		77.0	6.4	5.4	5.4	25	11.0	27.6	90.0	5.8	3.2	41.3	303.6	517.4	2.0	1.430	1.000	3.28	996							7.09	2151	2.16	6.3E-07												
18		77.0	6.4	5.4	5.4	25	12.2	26.8	90.0	5.6	3.8	40.0	327.0	544.7	2.3	1.374	1.000	3.21	1049							7.47	2442	2.33	5.5E-08												
19		77.0	6.4	5.4	5.4	25	13.1	26.4	90.0	5.5	3.5	37.8	345.8	556.1	2.4	1.337	1.000	3.10	1071							7.75	2679	2.50	4.6E-09												
20		77.0	6.4	5.4	5.4	25	11.0	26.7	90.0	5.5	3.6	41.3	293.7	500.0	2.0	1.416	1.000	3.28	962							7.09	2081	2.16	6.1E-07												
21		77.0	6.4	5.4	5.4	25	11.3	30.9	90.0	5.1	3.7	38.5	349.2	567.4	2.1	1.464	1.000	3.13	1092							7.18	2508	2.30	8.9E-08												
22		77.0	6.4	5.4	5.4	25	11.7	15.0	90.0	4.8	3.8	43.4	175.5	310.2	2.2	1.124	1.000	3.40	597							7.31	1283	2.15	7.4E-07												
Total												7380.2	11337.3																												

**Notes:**

- Pillar stability analysis based on the methods of Galvin, Hebbelwhite, Salamon and Lin (1998) UNSW Mining Research Centre Report RR3/98.
- Relationship between Factor of Safety (FoS) and probability of coal pillar failure is based on interpolation and extrapolation of data in the above publication. It should be noted that the probability of failure does not extend beyond a FoS of 2.11 (equivalent to a probability of failure of 1 in 1,000,000) in the above and therefore probabilities of failure for FoSs above this are an extrapolation based on a curve of best fit for data for FoSs of 2.11 and less
- Load on weaker pillars reduced by 30% as discussed in "Prefailure Pillar Yielding", by Agapto and Goodrich (2002) Load transferred to adjacent pillars.
- Extraction ratio is relative to working section not full seam height.
- Pillar Height should be the same as the working section unless roof collapse is being considered.

	Summary	FoS
	Max	3.24
	Min	1.96
	Mean	2.47
Panel Extraction Ratio	0.35	Panel Factor of safety Based on Tributary load
Total Pillar Load	21824.24	MN
Total Pilla Capacity	54342.32	MN
Panel FoS	2.49	

**Table B2 - Pillar Stability Analysis - Measured Pillar Dimensions - Panel 2**

Mine Workings - RT566 - Borehole Seam  
 Project: Newcastle Rail Corridor  
 Location: Newcastle  
 Analysis Assumptions: Pillar dimensions from RT.

Client: UrbanGrowth NSW  
 Date: 2 December 2015  
 Sheet: 1



Project No: 81720.01

Pillar Id:	Comment	Depth D (m)	Seam Thickness (m)	Working Section H (m)	Pillar Height Section H (m)	Unit Weigth $\gamma$ (kN/m <sup>3</sup> )	Pillar Details			Roadway Details		Extract. Ratio (%)	Pillar Area m <sup>2</sup>	Total Area m <sup>2</sup>	Width/Height Ratio Wp/H	Width Modifier		Pillar Stress (Tributary) (MPa)	Pillar Load (Tributary) MN	Abut (A) Yield (Y) (?)	Shed Load MN	Lodad Received MN	Pillar Stress ("Yield") (MPa)	Pillar Stress ("Abut") (MPa)	Power Law				
							Width Wp (m)	Length Lp (m)	Internal Angle (°)	Wr (m)	Lr (m)					$\Theta_0$	$\Theta$								Strength (MPa)	"Ultimate" Load MN	FoS	Probability of Failure	
23		77.0	6.4	5.4	5.4	25	10.0	11.7	90.0	5.3	4.5	52.8	117.0	247.9	1.9	1.078	1.000	4.08	477							6.75	790	1.66	9.0E-04
24		77.0	6.4	5.4	5.4	25	10.5	22.1	90.0	5.7	4.0	45.1	232.1	422.8	1.9	1.356	1.000	3.51	814							6.92	1606	1.97	9.4E-06
25		77.0	6.4	5.4	5.4	25	10.4	24.2	90.0	5.3	3.7	42.5	251.7	438.0	1.9	1.399	1.000	3.35	843							6.89	1733	2.06	2.9E-06
26		77.0	6.4	5.4	5.4	25	11.3	24.3	90.0	5.8	3.6	42.4	274.6	477.1	2.1	1.365	1.000	3.34	918							7.18	1973	2.15	7.5E-07
27		77.0	6.4	5.4	5.4	25	11.8	31.0	90.0	6.0	3.5	40.4	365.8	614.1	2.2	1.449	1.000	3.23	1182							7.34	2687	2.27	1.3E-07
28		77.0	6.4	5.4	5.4	25	10.7	24.1	90.0	6.8	3.5	46.6	257.9	483.0	2.0	1.385	1.000	3.61	930							6.99	1802	1.94	1.5E-05
29		77.0	6.4	5.4	5.4	25	11.0	31.1	90.0	5.9	3.4	41.3	342.1	583.1	2.0	1.477	1.000	3.28	1122							7.09	2424	2.16	6.3E-07
30		77.0	6.4	5.4	5.4	25	11.2	29.2	90.0	5.9	3.9	42.2	327.0	566.0	2.1	1.446	1.000	3.33	1090							7.15	2339	2.15	7.7E-07
31		77.0	6.4	5.4	5.4	25	10.3	30.5	90.0	5.5	3.6	41.7	314.2	538.8	1.9	1.495	1.000	3.30	1037							6.85	2153	2.08	2.1E-06
32		77.0	6.4	5.4	5.4	25	10.1	28.8	90.0	6.0	4.1	45.1	290.9	529.7	1.9	1.481	1.000	3.51	1020							6.78	1973	1.94	1.6E-05
33		77.0	6.4	5.4	5.4	25	11.3	38.4	90.0	5.9	1.8	37.2	433.9	691.4	2.1	1.545	1.000	3.07	1331							7.18	3117	2.34	4.6E-08
34		77.0	6.4	5.4	5.4	25	12.2	30.3	90.0	3.9	4.8	34.6	369.7	565.1	2.3	1.426	1.000	2.94	1088							7.47	2761	2.54	2.7E-09
35		77.0	6.4	5.4	5.4	25	12.3	29.9	90.0	4.7	3.8	35.8	367.8	572.9	2.3	1.417	1.000	3.00	1103							7.50	2759	2.50	4.6E-09
36		77.0	6.4	5.4	5.4	25	12.0	16.5	90.0	3.5	4.0	37.7	198.0	317.8	2.2	1.158	1.000	3.09	612							7.41	1467	2.40	2.1E-08
37		77.0	6.4	5.4	5.4	25	11.2	35.5	90.0	4.7	4.4	37.3	397.6	634.4	2.1	1.520	1.000	3.07	1221							7.15	2843	2.33	5.6E-08
38		77.0	6.4	5.4	5.4	25	12.7	26.5	90.0	3.6	3.7	31.6	336.6	492.3	2.4	1.352	1.000	2.82	948							7.62	2566	2.71	2.4E-10
39		77.0	6.4	5.4	5.4	25	10.5	32.0	90.0	5.3	3.9	40.8	336.0	567.2	1.9	1.506	1.000	3.25	1092							6.92	2325	2.13	9.8E-07
40		77.0	6.4	5.4	5.4	25	10.7	18.1	90.0	4.7	3.8	42.6	193.7	337.3	2.0	1.257	1.000	3.35	649							6.99	1353	2.08	1.9E-06
41		77.0	6.4	5.4	5.4	25	9.8	12.0	90.0	3.6	4.1	45.5	117.6	215.7	1.8	1.101	1.000	3.53	415							6.68	786	1.89	3.0E-05
42		77.0	6.4	5.4	5.4	25	10.7	26.4	90.0	4.6	4.1	39.5	282.5	466.7	2.0	1.423	1.000	3.18	898							6.99	1974	2.20	3.7E-07
43		77.0	6.4	5.4	5.4	25	9.8	12.0	90.0	3.6	4.1	45.5	117.6	215.7	1.8	1.101	1.000	3.53	415							6.68	786	1.89	3.0E-05
44		77.0	6.4	5.4	5.4	25	10.4	26.4	90.0	5.1	4.7	43.0	274.6	482.1	1.9	1.435	1.000	3.38	928							6.89	1891	2.04	3.7E-06
45		77.0	6.4	5.4	5.4	25	13.0	23.0	90.0	4.2	4.3	36.3	299.0	469.6	2.4	1.278	1.000	3.02	904							7.72	2307	2.55	2.2E-09
46		77.0	6.4	5.4	5.4	25	10.1	16.3	90.0	4.5	3.6	43.3	164.6	290.5	1.9	1.235	1.000	3.40	559							6.78	1117	2.00	6.6E-06
47		77.0	6.4	5.4	5.4	25	8.8	17.4	90.0	5.3	3.2	47.3	153.1	290.5	1.6	1.328	1.000	3.65	559							6.32	968	1.73	3.0E-04
48		77.0	6.4	5.4	5.4	25	10.2	13.9	90.0	5.4	3.2	46.9	141.8	266.8	1.9	1.154	1.000	3.62	514							6.82	967	1.88	3.4E-05
												Total	6957.1	11776.3															

**Notes:**

- Pillar stability analysis based on the methods of Galvin, Hebbelwhite, Salamon and Lin (1998) UNSW Mining Research Centre Report RR3/98.
- Relationship between Factor of Safety (FoS) and probability of coal pillar failure is based on interpolation and extrapolation of data in the above publication. It should be noted that the probability of failure does not extend beyond a FoS of 2.11 (equivalent to a probability of failure of 1 in 1,000,000) in the above and therefore probabilities of failure for FoSs above this are an extrapolation based on a curve of best fit for data for FoSs of 2.11 and less
- Load on weaker pillars reduced by 30% as discussed in "Prefailure Pillar Yielding", by Agapto and Goodrich (2002) Load transferred to adjacent pillars.
- Extraction ratio is relative to working section not full seam height.
- Pillar Height should be the same as the working section unless roof collapse is being considered.

	Summary	FoS
	Max	2.71
	Min	1.66
	Mean	2.14
Panel Extraction Ratio	0.41	
	Panel Factor of safety Based on Tributary load	
Total Pillar Load	22669.34	MN
Total Pilla Capacity	49464.53	MN
Panel FoS	2.18	



**Table B3 - Pillar Stability Analysis - Measured Pillar Dimensions - Panel 3**



Mine Workings - RT566 - Borehole Seam  
 Project: Newcastle Rail Corridor  
 Location: Newcastle  
 Analysis Assumptions: Pillar dimensions from RT.

Client: UrbanGrowth NSW  
 Date: 2 December 2015  
 Sheet: 1

Project No: 81720.01

Pillar Id:	Comment	Depth D (m)	Seam Thickness (m)	Working Section H (m)	Pillar Height Section H (m)	Unit Weighth γ (kN/m <sup>3</sup> )	Pillar Details			Roadway Details		Extract. Ratio (%)	Pillar Area m <sup>3</sup>	Total Area m <sup>3</sup>	Width/ Height Ratio Wp/H	Width Modifier		Pillar Stress (Tributary) (MPa)	Pillar Load (Tributary) MN	Abut (A) Yield (Y) (?)	Shed Load MN	Lodad Received MN	Pillar Stress ("Yield") (MPa)	Pillar Stress ("Abut") (MPa)	Power Law				
							Width Wp (m)	Length Lp (m)	Internal Angle (°)	Wr (m)	Lr (m)					ϕ <sub>0</sub>	ϕ								Strength (MPa)	"Ultimate" Load MN	FoS	Probability of Failure	
49		77.0	6.4	5.4	5.4	25	11.0	40.3	90.0	5.3	3.6	38.0	443.3	715.6	2.0	1.571	1.000	3.11	1377							7.09	3141	2.28	1.1E-07
50		77.0	6.4	5.4	5.4	25	10.5	32.1	90.0	4.7	1.8	34.6	337.1	515.3	1.9	1.507	1.000	2.94	992							6.92	2332	2.35	4.0E-08
51		77.0	6.4	5.4	5.4	25	10.9	34.1	90.0	5.1	3.8	38.7	371.7	606.4	2.0	1.516	1.000	3.14	1167							7.05	2622	2.25	1.8E-07
52		77.0	6.4	5.4	5.4	25	11.0	21.6	90.0	5.2	2.1	38.1	237.6	383.9	2.0	1.325	1.000	3.11	739							7.09	1684	2.28	1.2E-07
53		77.0	6.4	5.4	5.4	25	10.5	29.1	90.0	5.1	4.0	40.8	305.6	516.4	1.9	1.470	1.000	3.25	994							6.92	2114	2.13	1.0E-06
54		77.0	6.4	5.4	5.4	25	10.3	15.8	90.0	5.0	2.0	40.2	162.7	272.3	1.9	1.211	1.000	3.22	524							6.85	1115	2.13	1.0E-06
55		77.0	6.4	5.4	5.4	25	11.0	29.7	90.0	5.4	4.4	41.6	326.7	559.2	2.0	1.459	1.000	3.30	1077							7.09	2315	2.15	7.3E-07
56		77.0	6.4	5.4	5.4	25	12.2	25.8	90.0	4.5	3.6	35.9	314.8	491.0	2.3	1.358	1.000	3.00	945							7.47	2351	2.49	5.7E-09
57		77.0	6.4	5.4	5.4	25	11.6	21.1	90.0	4.0	3.8	37.0	244.8	388.4	2.1	1.291	1.000	3.06	748							7.28	1782	2.38	2.6E-08
58		77.0	6.4	5.4	5.4	25	12.6	30.6	90.0	4.9	4.3	36.9	385.6	610.8	2.3	1.417	1.000	3.05	1176							7.59	2928	2.49	5.4E-09
59		77.0	6.4	5.4	5.4	25	12.4	24.4	90.0	4.9	4.3	39.1	302.6	496.5	2.3	1.326	1.000	3.16	956							7.53	2279	2.38	2.5E-08
60		77.0	6.4	5.4	5.4	25	10.8	19.9	90.0	5.0	3.7	42.4	214.9	372.9	2.0	1.296	1.000	3.34	718							7.02	1509	2.10	1.5E-06
61		77.0	6.4	5.4	5.4	25	11.7	24.6	90.0	5.1	4.2	40.5	287.8	483.8	2.2	1.355	1.000	3.24	931							7.31	2105	2.26	1.5E-07
62		77.0	6.4	5.4	5.4	25	10.4	23.9	90.0	4.7	3.7	40.4	248.6	416.8	1.9	1.394	1.000	3.23	802							6.89	1712	2.13	9.3E-07
63		77.0	6.4	5.4	5.4	25	11.1	12.9	90.0	4.4	4.4	46.6	143.2	268.2	2.1	1.075	1.000	3.60	516							7.12	1019	1.97	9.1E-06
64		77.0	6.4	5.4	5.4	25	11.8	21.1	90.0	5.3	5.1	44.4	249.0	448.0	2.2	1.283	1.000	3.46	862							7.34	1829	2.12	1.1E-06
65		77.0	6.4	5.4	5.4	25	10.1	11.2	90.0	4.9	4.2	51.0	113.1	231.0	1.9	1.052	1.000	3.93	445							6.78	767	1.73	3.3E-04
66		77.0	6.4	5.4	5.4	25	10.6	30.2	90.0	5.0	4.5	40.9	320.1	541.3	2.0	1.480	1.000	3.26	1042							6.95	2226	2.14	8.9E-07
67		77.0	6.4	5.4	5.4	25	10.8	25.1	90.0	5.1	3.5	40.4	271.1	454.7	2.0	1.398	1.000	3.23	875							7.02	1903	2.17	5.2E-07
68		77.0	6.4	5.4	5.4	25	10.6	31.0	90.0	5.1	5.0	41.9	328.6	565.2	2.0	1.490	1.000	3.31	1088							6.95	2285	2.10	1.5E-06
69		77.0	6.4	5.4	5.4	25	10.8	28.5	90.0	5.5	4.5	42.8	307.8	537.9	2.0	1.450	1.000	3.36	1035							7.02	2161	2.09	1.8E-06
70		77.0	6.4	5.4	5.4	25	10.7	28.8	90.0	5.5	3.3	40.7	308.2	520.0	2.0	1.458	1.000	3.25	1001							6.99	2153	2.15	7.2E-07
71		77.0	6.4	5.4	5.4	25	11.1	28.0	90.0	6.0	4.2	43.6	310.8	550.6	2.1	1.432	1.000	3.41	1060							7.12	2213	2.09	1.8E-06
72		77.0	6.4	5.4	5.4	25	11.5	28.6	90.0	5.7	3.8	41.0	328.9	557.3	2.1	1.426	1.000	3.26	1073							7.25	2384	2.22	2.6E-07
73		77.0	6.4	5.4	5.4	25	10.3	13.0	90.0	5.5	3.4	48.3	133.9	259.1	1.9	1.116	1.000	3.73	499							6.85	918	1.84	6.4E-05
74		77.0	6.4	5.4	5.4	25	11.3	28.5	90.0	5.8	3.7	41.5	322.1	550.6	2.1	1.432	1.000	3.29	1060							7.18	2314	2.18	4.6E-07
75		77.0	6.4	5.4	5.4	25	12.3	25.1	90.0	5.2	3.6	38.5	308.7	502.3	2.3	1.342	1.000	3.13	967							7.50	2316	2.40	2.1E-08
76		77.0	6.4	5.4	5.4	25	11.6	14.5	90.0	5.4	3.8	45.9	168.2	311.1	2.1	1.111	1.000	3.56	599							7.28	1225	2.04	3.3E-06
77		77.0	6.4	5.4	5.4	25	10.9	23.5	90.0	5.2	3.6	41.3	256.2	436.3	2.0	1.366	1.000	3.28	840							7.05	1807	2.15	7.2E-07
78		77.0	6.4	5.4	5.4	25	17.4	39.0	90.0	5.7	2.2	28.7	678.6	951.7	3.2	1.383	1.024	2.70	1832							9.06	6150	3.36	2.1E-14
79		77.0	6.4	5.4	5.4	25	14.3	16.6	90.0	4.8	3.9	39.4	237.4	391.6	2.6	1.074	1.000	3.18	754							8.10	1923	2.55	2.3E-09
80		77.0	6.4	5.4	5.4	25	8.5	21.8	90.0	4.9	3.6	45.6	185.3	340.4	1.6	1.439	1.000	3.54	655							6.21	1151	1.76	2.1E-04
81		77.0	6.4	5.4	5.4	25	8.2	17.9	90.0	4.8	4.5	49.6	146.8	291.2	1.5	1.372	1.000	3.82	561							6.10	895	1.60	1.6E-03
82		77.0	6.4	5.4	5.4	25	9.1	54.0	90.0	5.3	2.4	39.5	491.4	812.2	1.7	1.712	1.000	3.18	1563							6.43	3161	2.02	4.6E-06
83		77.0	6.4	5.4	5.4	25	11.0	36.2	90.0	5.1	4.4	39.1	398.2	653.7	2.0	1.534	1.000	3.16	1258							7.09	2822	2.24	1.9E-07
84		77.0	6.4	5.4	5.4	25	11.3	38.9	90.0	5.4	2.2	36.0	439.6	686.4	2.1	1.550	1.000	3.01	1321							7.18	3158	2.39	2.3E-08
85		77.0	6.4	5.4	5.4	25	12.7	25.9	90.0	5.1	4.4	39.0	328.9	539.3	2.4	1.342	1.000	3.16	1038							7.62	2508	2.42	1.6E-08
86		77.0	6.4	5.4	5.4	25	12.9	38.9	90.0	5.0	2.3	32.0	501.8	737.5	2.4	1.502	1.000	2.83	1420							7.69	3857	2.72	2.1E-10
87		77.0	6.4	5.4	5.4	25	8.8	69.6	90.0	5.4	1.5	39.3	612.5	1009.6	1.6	1.776	1.000	3.17	1944							6.32	3873	1.99	7.0E-06
88		77.0	6.4	5.4	5.4	25	9.8	47.7	90.0	5.7	3.9	41.6	467.5	799.8	1.8	1.659	1.000	3.29	1540							6.68	3123	2.03	4.2E-06
89		77.0	6.4	5.4	5.4	25	10.2	34.3	90.0	5.6	3.9	42.0	349.9	603.6	1.9	1.542	1.000	3.32	1162							6.82	2385	2.05	2.9E-06
90		77.0	6.4	5.4	5.4	25	12.0	54.4	90.0	5.0	4.0	34.2	652.8	992.8	2.2	1.639	1.000	2.93	1911							7.41	4836	2.53	3.1E-09
91		77.0	6.4	5.4	5.4	25	11.3	16.2	90.0	5.1	1.9	38.3	183.1	296.8	2.1	1.178	1.000	3.12	571							7.18	1315	2.30	8.3E-08
92		77.0	6.4	5.4	5.4	25	7.4	8.6	90.0	3.3	4.8	55.6	63.6	143.4	1.4	1.075	1.000	4.34	276							5.79	368	1.33	3.1E-02
93		77.0	6.4	5.4	5.4	25	9.5	28.2	90.0	5.5	3.9	44.4	267.9	481.5	1.8	1.496	1.000	3.46	927							6.58	1762	1.90	2.6E-05
94		77.0	6.4	5.4	5.4	25	10.6	28.4	90.0	4.8	4.2	40.0	301.0	502.0	2.0	1.456	1.000	3.21	966							6.95	2093	2.17	5.8E-07
95		77.0	6.4	5.4	5.4	25	9.2	23.8	90.0	5.0	2.8	42.0	219.0	377.7	1.7	1.442	1.000	3.32	727							6.47	1416	1.95	1.3E-05
96		77.0	6.4	5.4	5.4	25	11.1	27.3	90.0	5.1	3.5	39.3	303.0	499.0	2.1	1.422	1.000	3.17	960							7.12	2157	2.25	1.8E-07
97		77.0	6.4	5.4	5.4	25	12.7	30.1	90.0	4.8	1.7	31.3	382.3	556.5	2.4														

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## Appendix C

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Letter from Mine Subsidence Board, 15 January 2016  
Mine Subsidence Board “Newcastle City Area Mine Subsidence  
Categories” 8 June 2012  
Mine Subsidence Board - Newcastle Plan Legend  
Hunter Development Corporation - “Newcastle Mines  
Grouting Fund 2015/2016 Area Category Rates -  
November 2015”



In reply please send to: Newcastle District Office  
Our reference: FN00-01493N0  
Your reference: DP Letter : 8/1/2016  
Contact: Peter Evans (02) 4908 4391

ABN: 87 445 348 918

Douglas Partners Pty Ltd  
Attention: Mr Stephen Johns  
PO Box 324  
Hunter Region Mail Centre  
NSW 2310

#### NEWCASTLE

Ground Floor  
NSW Government Offices  
117 Buil Street  
Newcastle West 2302  
PO Box 488G Newcastle 2300  
Telephone: (02) 4908 4300  
Facsimile: (02) 4929 1032  
DX 4322 Newcastle West

14 January 2016

#### PICTON

100 Argyle Street  
Picton 2571  
PO Box 40 Picton 2571  
Telephone: (02) 4677 1967  
Facsimile: (02) 4677 2040  
DX 26053 Picton

Dear Stephen,

#### ENQUIRY NO. TENQ16-13738N1

NEWCASTLE RAIL CORRIDOR: PART LOT 22 DP 1165985; LOT 1 DP 1192409; PART LOT 1001 DP 1095836; PART LOT 21 DP 1009735; PART LOT 22 DP 1009735; PART LOT 21 DP 1165985; LOT 1000 DP 1095836

#### SINGLETON

The Central Business Centre  
Unit 6, 1 Pitt Street  
Singleton 2330  
PO Box 524 Singleton 2330  
Telephone: (02) 6572 4344  
Facsimile: (02) 6572 4504

I refer to your letter dated 8 January 2016 concerning preliminary plans for development along the Newcastle Rail Corridor, between Worth Place and Watt Street, Newcastle. I understand you are seeking advice from the Board on its likely development requirements.

#### WYONG

Suite 3 Feldwin Court  
30 Hely Street  
Wyong 2259  
PO Box 157 Wyong 2259  
Telephone: (02) 4352 1646  
Facsimile: (02) 4352 1757  
DX 7317 Wyong

As you will be aware most of these properties lie within the Newcastle Mine Subsidence District, except for a section at the Watt Street end. The purpose of a District is to prevent damage through surface development controls that take account of the risk of damage by subsidence from old, current and future mining.

Any proposal to subdivide or erect or alter any improvements on land within a Mine Subsidence District will require the Boards approval. So, applicants are encouraged to contact the Board early in the planning and design development process to determine the Boards specific requirements.

#### HEAD OFFICE

PO Box 488G  
Newcastle 2300  
Telephone: (02) 4908 4395  
Facsimile: (02) 4929 1032

For the section of rail corridor within the Newcastle Mine Subsidence District, the Board has nominated a surface development guideline No. 9, which permits the following building development up to 30m long;

1. Single or two storey timber or steel framed improvements clad with weatherboards or other similar materials erected on reinforced concrete footings and/or slabs to comply with AS 2870.
2. Single or two storey brick veneer improvements erected on reinforced concrete footings and/or slabs to comply with AS 2870.
3. Up to three (3) storey brick construction designed in accordance with the relevant codes and standards.



Email  
mail@minesub.nsw.gov.au

Web  
www.minesub.nsw.gov.au

24 Hour  
Emergency Service  
Free Call 1800 248 083

Standard (Auto) BAs

Development which exceeds or doesn't comply with this guideline would need to be considered by the Board on its "merits". This would require an assessment of the mine subsidence risk and likelihood of damage to surface development.

In consideration of a merit assessment, the Board generally requests a geotechnical investigation which provides supporting evidence and a recommendation for one of the following;

- a) There is no risk of mine subsidence.
- b) The risk of mine subsidence should be eliminated by suitable means such as grouting.
- c) The risk of mine subsidence can be mitigated by structural design, adopting recommended mine subsidence design parameters.

The geotechnical investigation should be undertaken by an engineer experienced in mine subsidence and the report should include confirmation of the depth of the coal seam, height of the workings, thickness of competent rock, pillar dimensions used in any analysis, and details of drifts, shafts, and geological anomalies such as faults. The analysis should also include a sensitivity / risk review, and consider potential subsidence scenarios including a worst case.

If grouting of the workings is necessary to eliminate the risk of mine subsidence the Board would likely request for its acceptance a grouting design and verification plan.

Where the Board accepts mine subsidence design parameters, it would likely request an "Impact Statement" of the surface development for acceptance prior to detailed design. This would be expected to;

- a) Confirm the 'mine subsidence design parameters
- b) List the structures and building elements.
- c) Summarise the outcome of a risk assessment.
- d) List the design mitigation measures proposed.

For multistorey building developments the Board will likely require exploratory drilling to prove the mine subsidence site parameters used in any analysis, including;

- a) Verifying the limit of workings in the Borehole and Yard seams.
- b) Verifying the location of workings which crossover the rail corridor.
- c) Determining the possibility of unmapped workings above the borehole seam.

Please note this information is provided "without prejudice" based on limited information to enable Douglas Partners and its client Urban Growth, better anticipate the Board's likely requirements for the future development of the Newcastle Rail Corridor.

In respect of your query concerning the Newcastle Mine Grouting Fund, please contact the Hunter Development Corporation who is the administrator.

If you have any queries concerning this matter please don't hesitate to contact me.

Yours faithfully

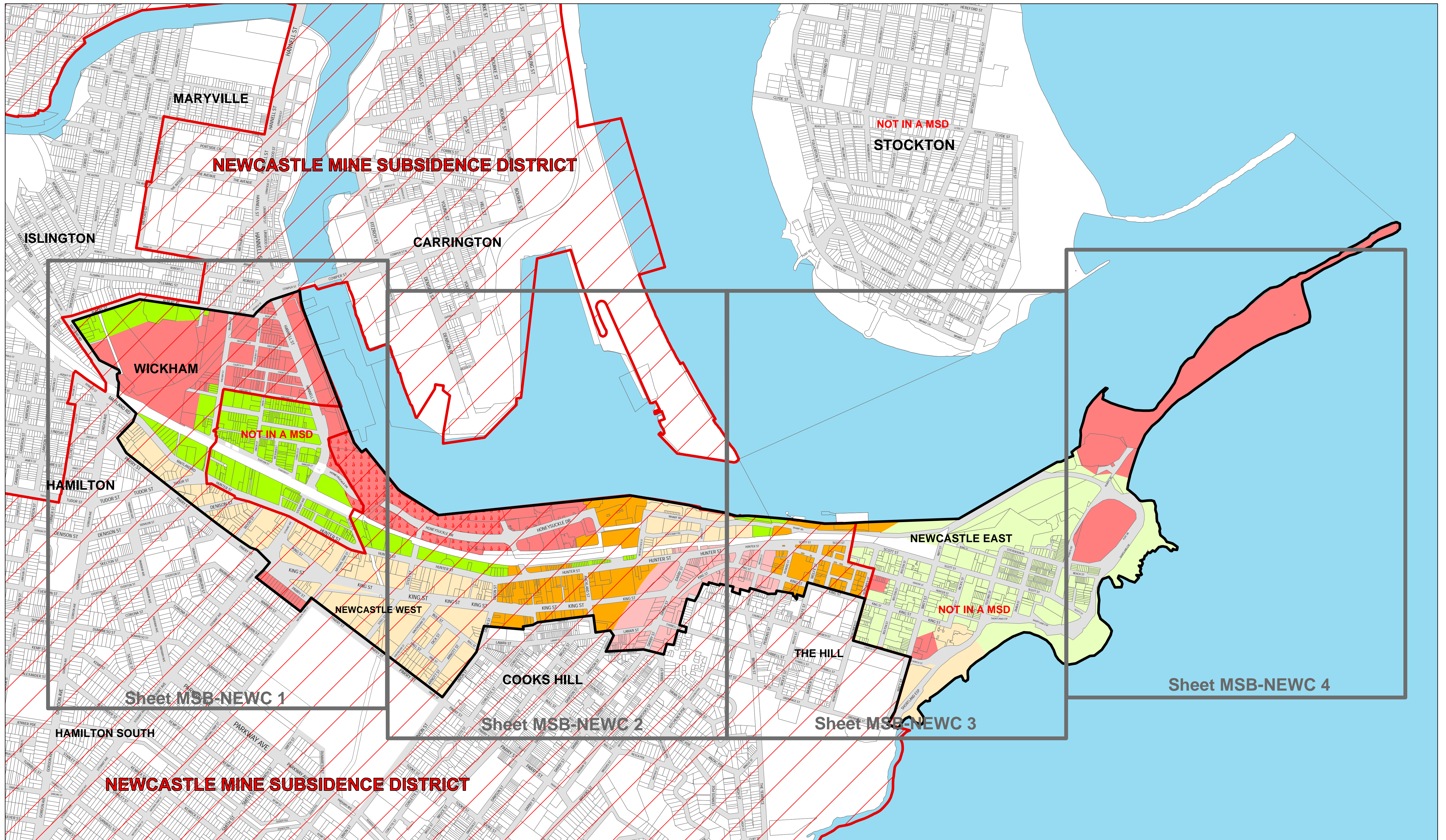


Peter Evans

**Subsidence Risk Engineer**

Copies:

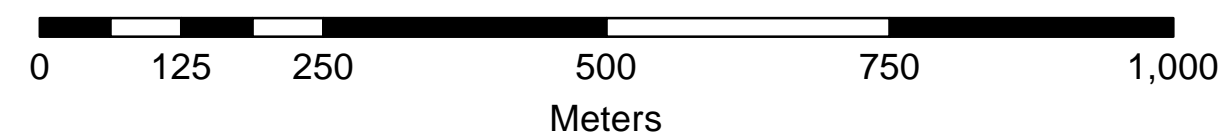
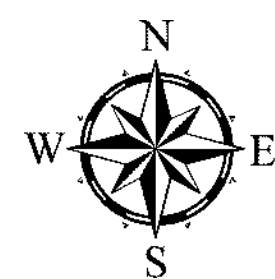
- CEO (Mine Subsidence Board)
- Newcastle District Manager (Mine Subsidence Board)



**WARNING: THIS MAP REFERS TO THE NEWCASTLE CITY CENTRE AREA ONLY  
EXTENSIVE MINE WORKINGS EXIST WITHIN AND BEYOND THIS AREA**

# NEWCASTLE CITY CENTRE AREA MINE SUBSIDENCE CATEGORIES

REVISION DATE  
8 June 2012



## LEGEND

- GROUTING STRATEGY(HDC)
- LIMITED RESTRICTIONS
- NO RESTRICTIONS
- CATEGORY A
- CATEGORY B
- CATEGORY C
- CATEGORY D
- EXTENT NEWCASTLE CITY CENTRE AREA
- NEWCASTLE MINE SUBSIDENCE DISTRICT BOUNDARY

**DISCLAIMER:**  
The source data used to compile the maps has been obtained by the Mine Subsidence Board from records held by NSW Trade and Investment - Division of Resources & Energy; mine owners; the Department of Finance & Services - Land and Property Information; and Newcastle City Council. Accordingly, no warranty is expressed or can be implied as to the accuracy of the maps or that the maps are free from any error or omission. The State of New South Wales, the Mine Subsidence Board and their servants and agents expressly disclaim any liability whatsoever for the consequences arising from any act done or omission made in reliance on the maps.

**NOTE:**  
PLEASE REFER TO THE FULL DISCLAIMER (AGREED TO) ON THE MINE SUBSIDENCE BOARD WEBSITE FOR RESTRICTIONS ON THE USE AND ACCURACY OF THE MAP DATA.



Sheet MSB-NEWC 4

Sheet MSB-NEWC 1

Sheet MSB-NEWC 2

Sheet MSB-NEWC 3

## Mine Subsidence Board — Newcastle Plan Legend

*The plan only shows categories based on the extent of mine workings.*

Surface development categories with regard to mine subsidence are available from the Mine Subsidence Board. Please note the plan does not cover development requirements of other organisations.

The Mine Subsidence Board regularly reviews its surface development categories as additional geotechnical information becomes available. As Stage 2 of this project, the Board is assessing whether further detail can be provided to assist in understanding the quantum of grouting that is likely to be required in the categories identified on the plan.

### 1. Legend

-  — ***No restriction.*** Allotments are not undermined nor within the zone of influence of known mine workings mining. There are no mine subsidence requirements for grouting.
-  — ***Limited Restrictions.*** The area is not currently in a Mine Subsidence District. Some areas of shallow unchartered workings have been identified. Further geotechnical investigation of some sites, with possible grouting, may be required.
-  — ***Category A.*** Area of larger and relative uniform pillars. Geotechnical investigations required and likely grouting for high-rise and larger footprint structures.
-  — ***Category B.*** Area of smaller dimension and relative uniform pillars. Geotechnical investigations required and high likelihood of coal seam grouting for high-rise and larger footprint structures.
-  — ***Category C.*** Area underlain by Yard Seam at around 30m depth. Extent of Yard Seam to be determined and mine workings fully grouted. Additional requirements as per Category B.
-  — ***Category D.*** Area of old and small pillars with a possible history of failure. Detailed geotechnical investigation required and coal seam grouting for high-rise and larger footprint structures if seam has not fully collapsed.
-  — ***Category E.*** As per Category D with an ‘in principle’ grouting proposal available for this area.

## NEWCASTLE MINES GROUTING FUND 2015/2016 Area Category Rates – November 2015

The rates below apply to the Newcastle Mines Grouting Fund.

<b>Category</b>	<b>Rate per square metre of site area (excl GST)</b>
<b>No restriction</b>	Not applicable
<b>Limited restriction</b>	\$200
<b>A, D &amp; E</b>	\$200
<b>B</b>	\$300
<b>C</b>	\$400

These rates are subject to change at any time. A formal review is scheduled for the end of 2016.

The rates directly correspond to the Newcastle City Centre Area Mine Subsidence Categories mapping published by the Mine Subsidence Board 2012, a link to the mapping is available below.

<http://www.minesub.nsw.gov.au/SiteFiles/minesubnswgovau/NEWCASTLE-CITY-CENTRE-A1-map-08-06-2012.pdf>

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## **Appendix D**

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- Drawing 1 – Site Plan and Geotechnical Zones
- Drawing 2 – Cross-Section A-A' Sheet 1 of 2
- Drawing 3 – Cross-Section A-A' Sheet 2 of 2
- Drawing 4 – Inferred Layout of Mine Workings in Borehole Seam
- Drawing 5 – Preliminary Grout Zones in Borehole Seam



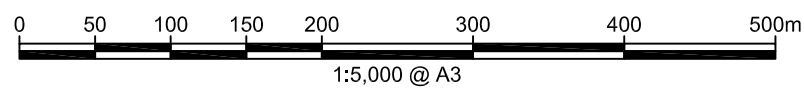


**NOTES**

1. Drawing adapted from Nearmap Image dated 20.11.15
2. See Drawings 2 and 3 for Section A-A'

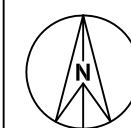
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- Approximate Rezoning Site Boundary
- A** Geotechnical Zone



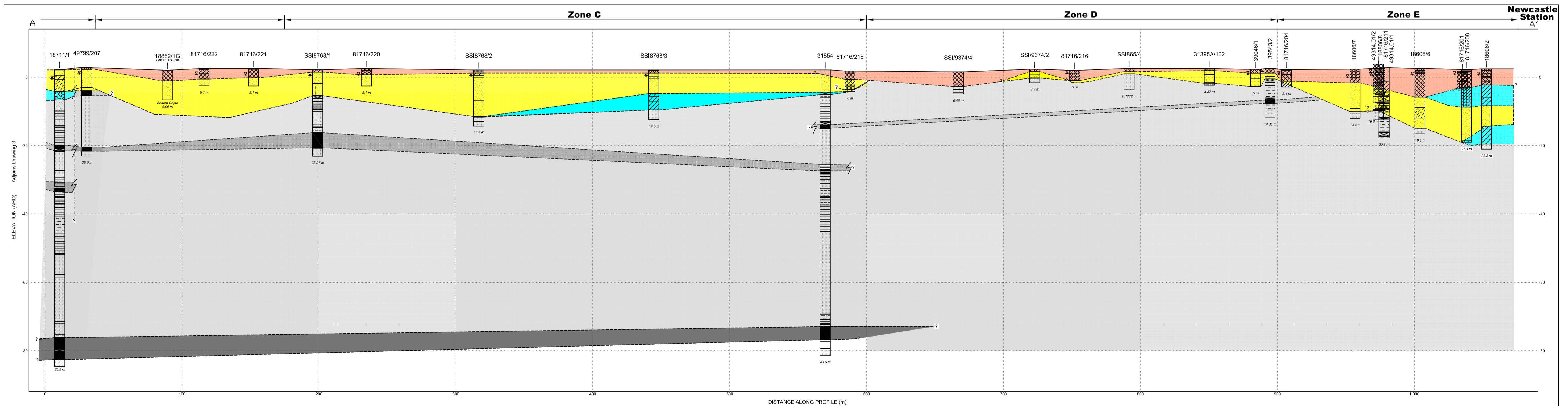
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OFFICE: Newcastle	DRAWN BY: PLH
SCALE: 1:5,000@A3 Sheet	DATE: 11.12.2015

TITLE: **Site Plan and Geotechnical Zones**  
**Surplus Newcastle Rail Corridor Land**  
**Newcastle**



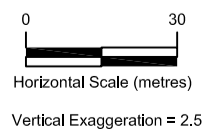
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REVISION:	1





NOTE: Layer boundaries have been interpolated between test locations and are therefore approximate. Some test data has been projected onto the section from outside the subject site. Actual stratification may vary from that shown.

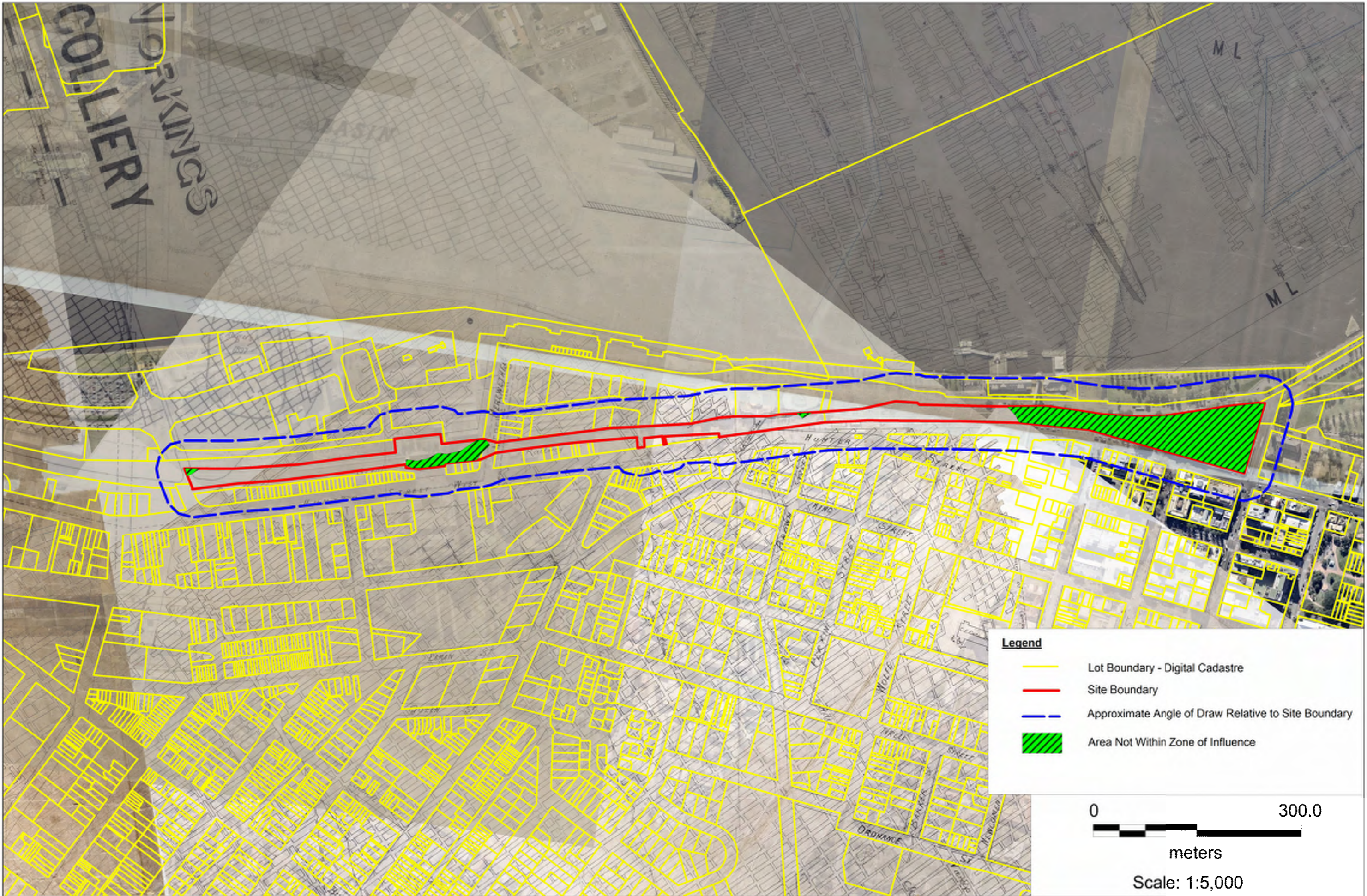
LEGEND	
	Core Loss
	Asphaltic Concrete
	Void
	Clay
	Clayey Sand
	Claystone
	Concrete
	Filling
	Laminite
	Mudstone
	Roadbase
	Sand
	Sandstone
	Sandstone coarse grained
	Sandy Clay
	Unit 1 Fill
	Unit 2 Sand / Silty Sand
	Unit 3 Clay / Sandy Clay / Silty Clay
	Unit 4 Bedrock - Sandstone, Siltstone, Mudstone, Laminite, Coal
	Unit 4.1 Dudley Seam
	Unit 4.2 Yard Seam
	Unit 4.3 Borehole Seam
	TESTS / OTHER - Water level



CLIENT: UrbanGrowth NSW	OFFICE: Newcastle	DRAWN BY: PLH
SCALE: 1:1500 (H) 1:800 (V) @ A1	DATE: 10.12.2015	

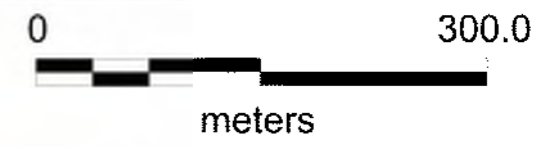
TITLE: Cross-section A-A' (Sheet 2 of 2)
Surplus Newcastle Rail Corridor Land
Newcastle

PROJECT No: 81716.00
DRAWING No: 3
REVISION: 1



**Legend**

- Lot Boundary - Digital Cadastre
- Site Boundary
- - - Approximate Angle of Draw Relative to Site Boundary
- ▨ Area Not Within Zone of Influence

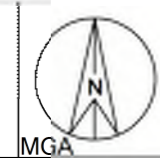


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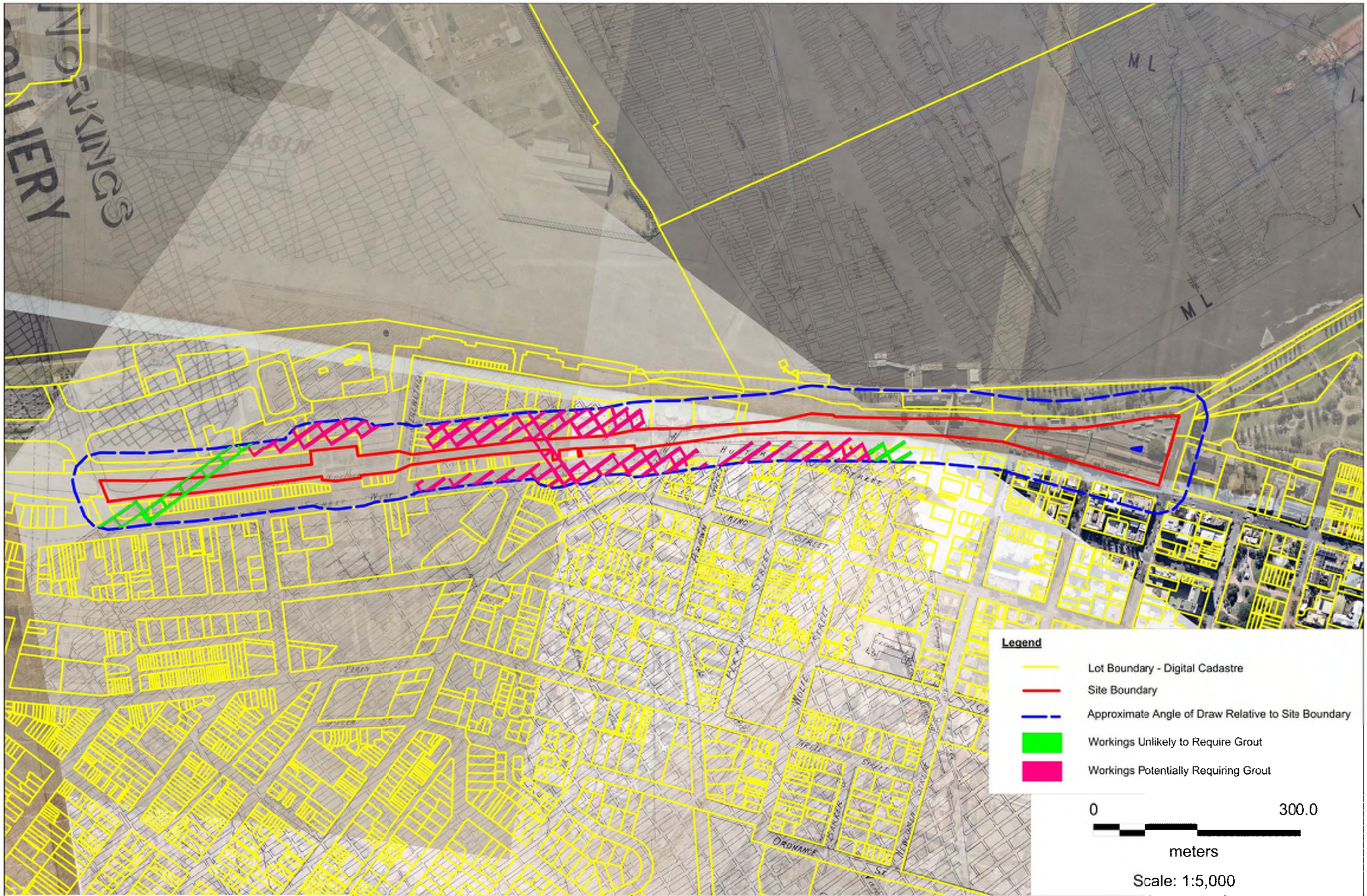
**Douglas Partners**  
Geotechnics | Environment | Groundwater

CLIENT: UrbanGrowth NSW	
OFFICE: Newcastle	DRAWN BY: TAC
SCALE: As shown	DATE: 12.01.16

TITLE: Inferred Layout of Mine Workings in Borehole Seam  
Newcastle Rail Corridor



PROJECT No: 81716.01
DRAWING No: 4
REVISION: 0



**Appendix D**

Flood Risk Assessment

“Where will our knowledge take you?”



## **Newcastle Urban Transformation and Transport Program: Rezoning of Surplus Rail Corridor Lands Flood Risk Assessment**

Final Report

March 2017

# Newcastle Rail Corridor Rezoning - Flooding

Prepared for: UrbanGrowth NSW

Prepared by: BMT WBM Pty Ltd (Member of the BMT group of companies)

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	<b>Title:</b>	Newcastle Rail Corridor Rezoning - Flooding
	<b>Project Manager:</b>	Darren Lyons
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	<b>Client:</b>	UrbanGrowth NSW
	<b>Client Contact:</b>	Jenny Rudolph (Elton Consulting)
	<b>Client Reference:</b>	
<p><b>Synopsis:</b> Documentation of preliminary flood risk assessment for proposed rezoning of surplus Newcastle rail corridor lands.</p>		

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## Introduction

# 1 Introduction

## 1.1 General

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1-1).



Source: Hassell

**Figure 1-1 Rezoning Study Area**

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500m commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

The transformation element of the Program aims to bring people back to the city centre by strengthening connections between the city and the waterfront, creating employment opportunities, providing more public space and amenity, and delivering better transport.

The proposed rezoning of the rail corridor land forms a part of the delivery of urban transformation initiatives, comprising a package of transport, built form and public domain improvements.

## 1.2 Newcastle Urban Transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment
- Civic: the government, business and cultural hub of the city

## Introduction

- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek)

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and the City of Newcastle Council (Council).

## 1.3 Proposed rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

### Vision

Our vision for the Program has been informed by feedback from the community, Council, government agencies and urban renewal experts.

*Our vision is an activated city centre and waterfront that attracts people, new enterprises and tourism. Overtime, we see great opportunities to build on the strengths of the city centre to encourage innovative and enterprising industries to survive. In the longer term, we see an opportunity to strengthen Newcastle's position on the regional, national and international stage, with a view to stronger ties with Asia Pacific.*

*UrbanGrowth NSW, 2015*

### Program objectives

The Program is underpinned by five objectives which will drive successful urban revitalisation:

- **Bring people back to the city centre.** Reimagining the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain that will attract people
- **Connect the city to its waterfront.** Unite the city centre and the harbour to improve the experience of being in and moving around the city
- **Help grow new jobs in the city centre.** Invest in initiatives that create jobs, with a focus on innovative industries, higher education initiatives to encourage a range of businesses to the city centre
- **Create great places linked to new transport.** Integrate urban transformation with new, efficient transport to activate Hunter and Scott's Streets and return them to thriving main streets
- **Creating economically sustainable public domain and community assets.** Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future
- **Preserve and enhance heritage and culture.** Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities.

### Urban transformation proposed concept plan

Surplus rail corridor land runs through the East End and Civic city centre precincts as established by NURS.

## Introduction

Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan (the concept plan) has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas.

The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 1-2) includes five 'key moves', two that relate to the Civic precinct and three of which relate to the East End.

### 1. Civic link (Civic)

This area is the civic heart of Newcastle and includes some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre and Newcastle Museum. Current investment in the area includes the law courts development and the, soon to be completed, University of Newcastle NeW Space campus.

The focus of this key move is to leverage best value from new investments by creating new open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

- **Civic Green.** Creating a new civic focused public space linking Hunter Street to the Newcastle Museum that will provide direct visual and physical connection from Wheeler Place to the harbour, activate light rail on Hunter Street and meet the needs of the incoming legal and student populations
- **Built form improvements.** Sensibly scaled mixed use development that forms part of the Honeysuckle development.

### 2. Darby Plaza (Civic)

Darby Street is Newcastle's premier 'eat street', offering a mix of shops, cafes, restaurants and night life. At present Darby Street ends at the intersection with Hunter Street, and this key move seeks to create a new node of activity and linkage through to the harbour that complements the delivery of light rail.

- **Darby Plaza.** A new community focused public space including provision of new walking and cycling facilities from Hunter Street to the harbour.
- **Built form improvements.** Zoning of rail corridor land between Merewether Street and Argyle Street to allow for future mixed use development in conjunction with surrounding lands in the longer term.

### 3. Hunter Street Revitalisation (East End)

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local business. Hunter Street has experienced decline in recent years, and the opportunity exists to reinstate Hunter Street as the regions premier main street that complements the delivery of light rail.

- **Built form improvements.** Sensibly scaled mixed use development consistent with the adjoining land uses to create an activated street with 'two edges', celebrate heritage and create

## Introduction

new linkages from Hunter Street to the waterfront, provide activation around light rail stops and improve walking and cycling facilities.

### 4. Entertainment Precinct (East End)

This key move aims to create a place where people can come to play, relax and reconnect with the harbour in a new public space stretching from Scott Street to the waterfront incorporating a new connection from Market Street to Queens Wharf. This key move will also assist to activate the area to create an exciting place for the East End.

- **Recreational opportunities.** This precinct will incorporate the adaptive re-use of the signal box and provision of recreation opportunities for all ages and abilities. Public domain will be designed to provide a thoughtful series of character areas and experiences as one traverses its length. The area will also provide opportunities for viewing and interpretation of heritage character that respect the unique qualities of place.

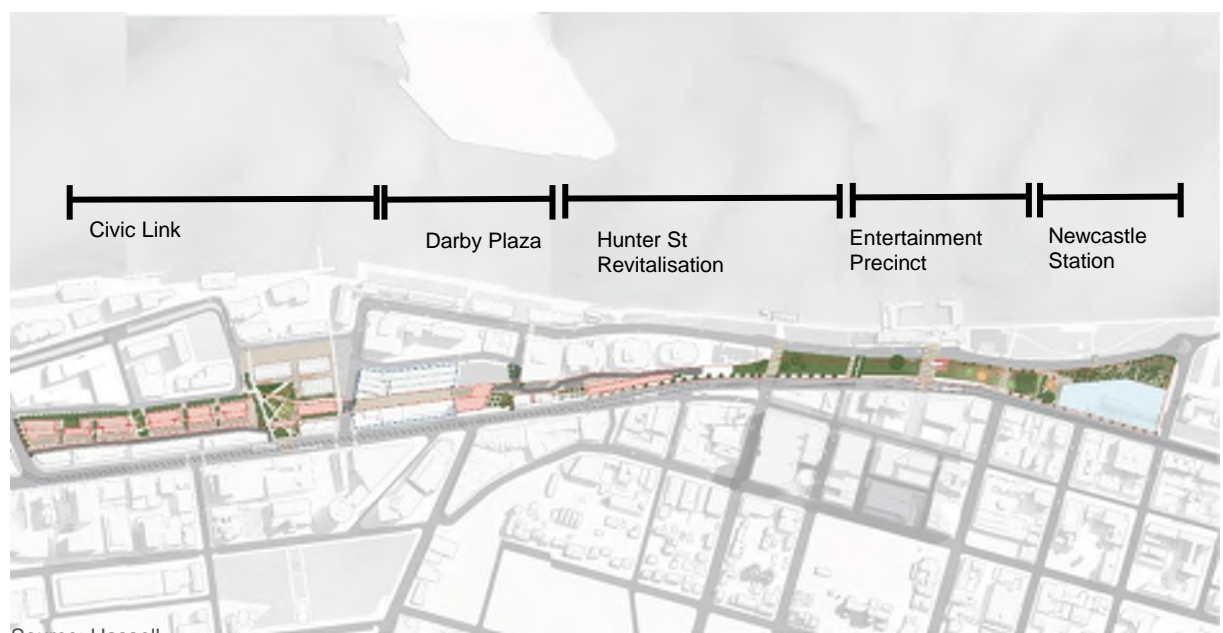
### 5. Newcastle Station (East End)

Newcastle Railway Station is proposed to be re-purposed into a hallmark destination and focal point for the new East End, accommodating enterprises and activities that attract visitors and stimulate the economy.

Refurbishment would fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, retail, leisure and commercial uses.

## 1.4 Rezoning Concept Plan

The proposed rezoning of the surplus rail corridor lands is the focus of this report. The rezoning area is indicated in Figure 1-2 by a red dotted line, with the plan also indicating the general precinct areas and the indicative built form for the parcels.



Source: Hassell

Figure 1-2 Rezoning Concept Plan

## Introduction

Amendments to the NLEP are required to deliver part of the concept plan. The proposed amendments are on surplus rail corridor land only.

Necessary amendments to the NLEP 2012 include:

- amending the Land Use Zoning Map to introduce B4 Mixed Use, SP3 Tourism and RE1 Public Recreation zones to sites along the corridor
- amending the Height of Building and Floor Space Ratio maps to apply appropriate development standards to selected parcels of land

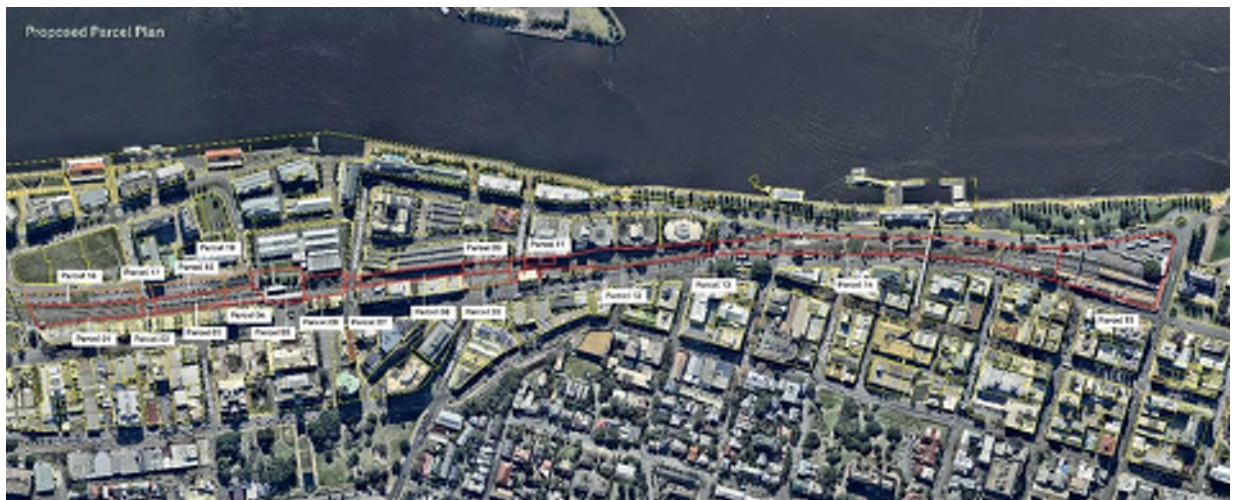
The approach taken to the amendments is to support the NURS planning approach and to remain consistent with surrounding planning controls in terms of zones, floor space ratio (FSR) and height.

The concept plan will also form the basis for updates to the Newcastle City Centre Development Control Plan design controls to guide development and public domain works for rezoning sites.

## 1.5 Proposed Rezoning

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan.

The location of the land affected by the proposed rezoning is identified in the map in Figure 1-3.



Source: Hassell

**Figure 1-3 Rezoning explanatory map – Parcels**

The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general, the proposed rezoning will provide a mix of uses enabling between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000m<sup>2</sup> of commercial, restaurant and other entertainment uses, as described in Table 1-1, and excluding any education or associated uses.

Proposed maximum building height and floor space ratio controls respect existing controls that apply to surrounding land.



## Introduction

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

**Table 1-1 Sites for Rezoning – Proposed development summary**

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m <sup>2</sup>	Parcel 01	3,370m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 02 B4 Mixed Use 408m <sup>2</sup>	Parcel 02	408m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 03 B4 Mixed Use 3,146m <sup>2</sup>	Parcel 03	1,869m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 30m
	Parcel 04	900m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height - 24m
Parcel 04 RE1 Public Recreation 2,464m <sup>2</sup>	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603m <sup>2</sup>	Now parcel 06	1,604m <sup>2</sup>	B4 Mixed Use	FSR – 3:1	Height – 18m
Parcel 06 B4 Mixed Use 295m <sup>2</sup>	Now parcel 07	295m <sup>2</sup>	B4 Mixed Use (Road)	FSR – 2.5:1	Height – 30m
Parcel 07 B4 Mixed Use 2,040m <sup>2</sup>	Now parcel 08	2,040m <sup>2</sup>	B4 Mixed Use	FSR – 2.5:1	Height – 30m
Parcel 08 B4 Mixed Use 988m <sup>2</sup>	Now parcel 09	988m <sup>2</sup>	B4 Mixed Use	FSR – 4:1	Height – 24m
Parcel 09 B4 Mixed Use	Now parcel 10	467m <sup>2</sup>	RE1 Public Recreation	N/A	N/A

## Introduction

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
467m <sup>2</sup>					
Parcel 10 SP2 Infrastructure 386m <sup>2</sup>	Now parcel 11	386m <sup>2</sup>	SP2 Infrastructure	N/A	N/A
Parcel 11 B4 Mixed Use 4,542m <sup>2</sup>	Now parcel 12	4,542m <sup>2</sup>	B4 Mixed Use	FSR – 1.5:1	Height – 14m
Parcel 12 B4 Mixed Use 1,544m <sup>2</sup>	Now parcel 13 (and has been reduced in size)	659m <sup>2</sup>	SP2 Infrastructure	N/A	N/A
Parcel 13 RE1 Public Recreation 303m <sup>2</sup>	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m <sup>2</sup>	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251m <sup>2</sup>					
Parcel 15 RE1 Public Recreation 7,713m <sup>2</sup>					
Parcel 16 SP3 Tourist 10,698m <sup>2</sup>	Now parcel 15	10,698m <sup>2</sup>	SP3 Tourist	FSR – 1.5:1	Height – 10- 15m

## 2 Existing Flood Risk Environment

---

### 2.1 Background

#### 2.1.1 Site Location and Flooding Mechanisms

The development area largely occupies the low-lying floodplain area of the Hunter River and Throsby Creek. The Hunter River Estuary is a large riverine estuary system at the downstream end of the extensive Hunter River catchment (size ~ 22,000km<sup>2</sup>), which flows into the Tasman Sea through the Port of Newcastle.

The ocean entrance to the Hunter River Estuary is fixed by twin rock breakwaters constructed in the late 19<sup>th</sup> century. The entrance is approximately 400 metres wide and 16 metres deep, allowing full ocean tides to penetrate into the Harbour. Prior to training of the entrance, it is understood that the Hunter River mouth and lower estuary contained dynamic sediment shoals, which would have been subject to significant and rapid change from periodic floods and coastal processes.

The majority of urban development is concentrated around Newcastle in the lower reaches of the estuary. The main urban catchments at the eastern end of the City drains to Cottage Creek, which has been extensively modified from natural conditions with large sections converted to hydraulically efficient concrete lined trapezoid shaped drains to reduce flooding.

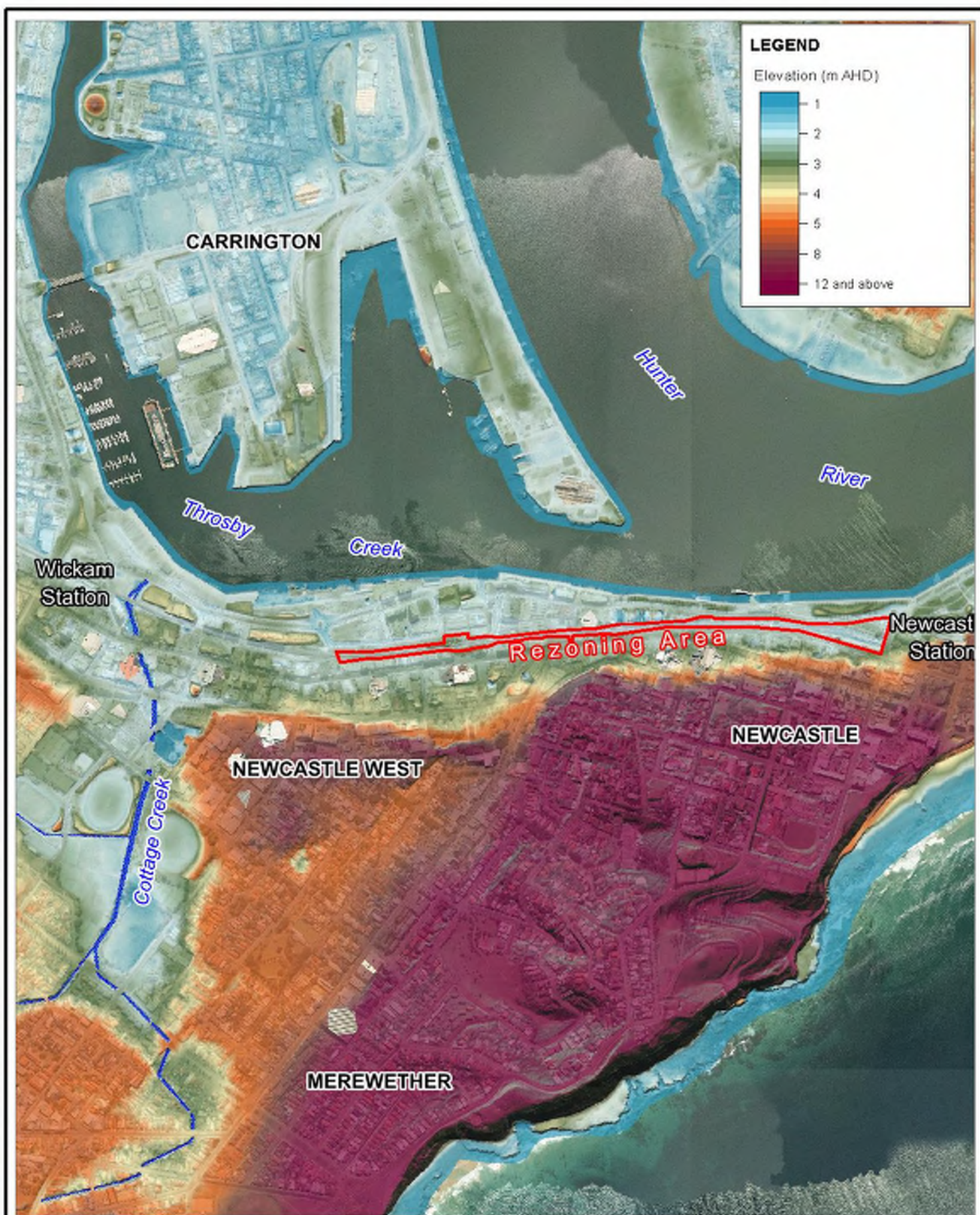
The low-lying nature of the study area is evident in Figure 2-1 showing the local topography. The topography shown is based on a Digital Elevation Model (DEM) derived from LiDAR data (NSW LPI data). The general ground levels around the rail corridor are 2-3m AHD. Some parts of the rail corridor were within cutting with rail line elevations down to around 1.7m AHD.

Flooding of the study area can occur from three mechanisms (and combinations thereof):

- Oceanic inundation, as a result of high ocean tides, storm surge, wave penetration;
- Local catchment flooding, as a result of intense rainfall within the local catchment of Throsby/Cottage Creek and small local overland flow catchments draining directly to the Hunter River; and
- Hunter River flooding, as a result of major flooding within the broader river system.

The low-lying topography of the study area and the proximity to the major waterways of Hunter River and Throsby Creek provide for significant flood inundation risks. These risks are expected to further increase in the future considering the potential for increases in mean sea level conditions associated with climate change

Risks associated with these forms of flooding in the study area are primarily a legacy of historical floodplain development. There has been extensive development on relatively low-lying foreshore area established before the current awareness and understanding of potential flooding extent and likelihood.



Title:  
**Local Topography**

Figure:  
**2-1**

Rev:  
**A**

BMTWBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMTWBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.



0 250 500m  
Approx. Scale

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### 2.1.2 Climate Change Considerations

Climate change is expected to have adverse impacts upon sea levels and rainfall intensities, both of which may have significant influence on flood behaviour at specific locations. The primary impacts of climate change in coastal areas are likely to result from sea level rise, which, coupled with a potential increase in the frequency and severity of storm events, may lead to increased coastal erosion, tidal inundation and flooding.

In 2009 the NSW State Government announced the NSW Sea Level Rise Policy Statement (DECCW, 2009) that adopted sea level rise planning benchmarks to ensure consistent consideration of sea level rise in coastal areas of NSW. These planning benchmarks adopted increases (above 1990 mean sea level) of 40 cm by 2050 and 90 cm by 2100. However, on 8 September 2012 the NSW Government announced its Stage One Coastal Management Reforms which no longer recommend state-wide sea level rise benchmarks for use by local councils. Instead councils have the flexibility to consider local conditions when determining future hazards of potential sea level rise.

Accordingly, it is recommended by the NSW Government that councils should consider information on historical and projected future sea level rise that is widely accepted by scientific opinion. This may include information in the NSW Chief Scientist and Engineer's Report entitled 'Assessment of the Science behind the NSW Government's Sea Level Rise Planning Benchmarks' (2012).

The NSW Chief Scientist and Engineer's Report (2012) acknowledges the evolving nature of climate science, which is expected to provide a clearer picture of the changing sea levels into the future. The report identified that:

- The science behind sea level rise benchmarks from the 2009 NSW Sea level Rise Policy Statement was adequate;
- Historically, sea levels have been rising since the early 1880's;
- There is considerable variability in the projections for future sea level rise; and
- The science behind the future sea level rise projections is continually evolving and improving.

As the majority of the analysis and modelling tasks associated with Councils Flood Study and Floodplain Risk Management Study were completed prior to the announcement of the NSW Government's Coastal Management Reforms in September 2012, the potential impacts of sea level rise have been based on sea level rise projections from the 2009 NSW Sea Level Rise Policy Statement. Nevertheless, the Chief Scientist and Engineer's Report identifies the science behind these sea level rise projections as adequate, and accordingly is expected to provide a reasonable basis for the assessment.

In 2007 the NSW Government released a guideline for practical consideration of climate change in the floodplain management process that advocates consideration of increased design rainfall intensities of up to 30%. Accordingly, this increase in design rainfall intensity will translate into increased flood inundation in the local catchment. Future planning and floodplain management in the catchment will need to take due consideration of this increased flood risk.

## Existing Flood Risk Environment

### 2.1.3 Previous Studies

The following collection of studies provides the most comprehensive description and assessment of the natural hydrologic and hydraulic regimes for the Hunter River, Throsby Creek, Cottage Creek and local catchments.

- Lower Hunter River Flood Study (PWD, 1994) - this study included the construction of a one-dimensional hydraulic model (MIKE11 software) and has been used as the basis for subsequent Floodplain Risk Management applications in the Lower Hunter. The developed model was further refined to incorporate a two-dimensional representation of the Hexham Swamp floodplain area (DHI, 2009). The peak design flood conditions derived from these studies form the adopted conditions for riverine flooding in the Lower Hunter Estuary, including the study area.
- Throsby Creek and Cottage Creek Flood Study (WBM, 2006) – the flood study incorporated detailed modelling of the urban catchments of Throsby Creek, Cottage Creek and the Newcastle CBD area, encompassing an area of some 42km<sup>2</sup>. The principle objectives of the study were to define the flood behaviour of the catchments through the establishment of appropriate numerical models, producing information on flood flows, velocities, levels and extents for a range of flood event magnitudes. The models incorporate the extensive trunk drainage network throughout the study area. The results of the study have been adopted by Council for flood planning purposes and form the basis for the flood risk assessment and formulation of appropriate floodplain risk management options.
- Newcastle City-wide Floodplain Risk Management Study and Plan (BMT WBM, 2012) - The City-wide Flood Plan has been developed to direct and co-ordinate the future management of flood prone lands across the City of Newcastle. It also aims to educate the community about flood risks across Newcastle, so that they can make more appropriate and informed decisions regarding their individual exposure and responses to flood risks. The City-wide Flood Plan sets out a strategy of short term and long term actions and initiatives that are to be pursued by agencies and the community in order to adequately address the risks posed by flooding.

The Newcastle City-wide Floodplain Risk Management Study provides an extensive mapping compendium that provides a comprehensive description of the flood inundation risks in the study area. The mapping provided incorporates the potential flooding from a number of sources including Hunter River flooding, local flooding in the Throsby/Cottage Creek catchment and tidal inundation including major storm surge events. Mapped scenarios include a range of magnitude events as well as the influence of potential sea level rise on future flooding conditions.

## 2.2 Existing Inundation Scenarios

Flooding of the study area can occur from three mechanisms (and combinations thereof):

- Oceanic inundation, as a result of high ocean tides, storm surge, wave penetration;
- Local catchment flooding, as a result of intense rainfall within the local catchment of Throsby/Cottage Creek and small overland flow catchments draining directly to the Hunter River; and

## Existing Flood Risk Environment

- Hunter River flooding, as a result of major flooding within the broader river system.

The following sections outline the existing and future flooding scenarios in the study area under the various flooding mechanisms identified above. These conditions are used as the basis for assessment of potential flood impact in the study area corridor.

### 2.2.1 Ocean Flooding

Oceanic inundation as a result of elevated tide levels are derived from combinations of the following conditions:

- Barometric pressure set up of the ocean surface due to the low atmospheric pressure of the storm;
- Wind set up due to strong winds during the storm “piling” water upon the coastline;
- Astronomical tide, particularly the Higher High Water Solstice Springs (HHWSS); and
- Wave set up.

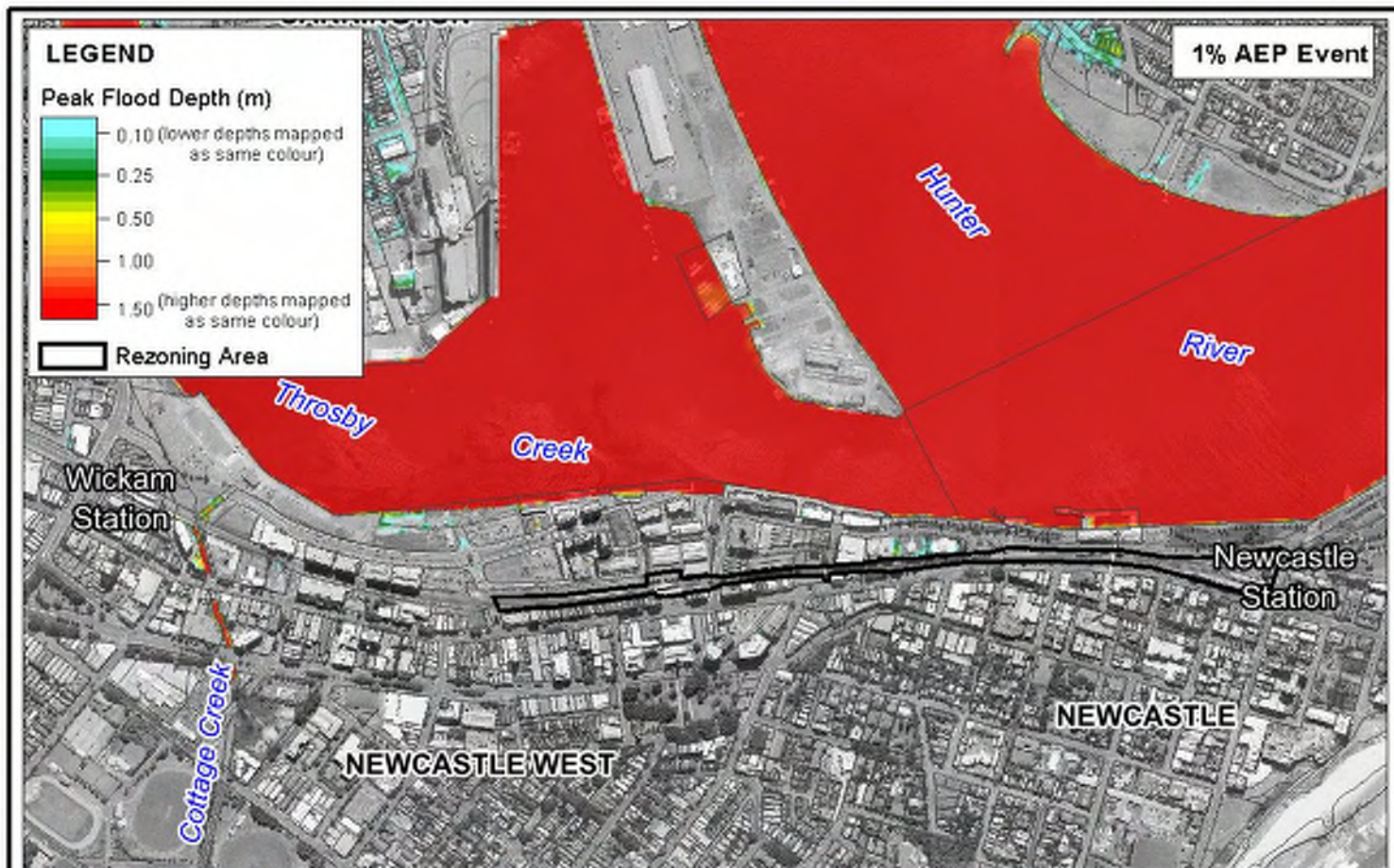
A summary of peak water levels under ocean flooding conditions for key design events is presented in Table 2-1, including the projected influence of sea level rise.

**Table 2-1 Design Peak Water Levels (m AHD) - Ocean Flooding**

Design Event	Existing Conditions	+0.4m SLR	+0.9m SLR
King Tide	1.0	1.4	1.9
10 % AEP	1.35	1.75	2.25
1% AEP	1.4	1.8	2.3
Extreme (PMF) Event	2.5	2.9	3.4

Given the topography of the study area (refer to Figure 2-1) there is the potential for extensive inundation under ocean flooding scenarios. The relative extents and depths of inundation for the 1% AEP and PMF design ocean events are shown in Figure 2-2. No major inundation of the low-lying foreshore area is expected under existing 1% AEP design ocean flood conditions. For the extreme event (PMF) condition, significant inundation would occur, with some peak flood depths up to the order 0.5 -1.0m.

As noted in Table 2-1, ocean flooding conditions are exacerbated with potential sea level rise. The design 1% AEP peak ocean flooding level incorporating 0.9m sea level rise is 2.3m AHD, thereby approaching the severity of inundation under existing extreme event conditions (2.5m AHD). Accordingly, the extent of ocean inundation shown at the bottom of Figure 2-2 is indicative of the typical design flood condition to be considered for the nominal 1% AEP design planning event under future catchment conditions (i.e. beyond 2100).



Title:  
**Ocean Peak Flood Depths - 1% AEP and PMF  
 Existing Conditions**

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**2-2**

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## 2.2.2 Local Catchment Flooding

The design local catchment flooding conditions have been derived in the Throsby Creek and Cottage Creek Flood Study (WBM, 2006). Local catchment flooding is referred to as “Flash Flooding” in the Newcastle City-wide Floodplain Risk Management Study, acknowledging the relatively flashy nature of flooding in local catchments across the CBD area and distinguishing from the mainstream flooding of the Hunter River system.

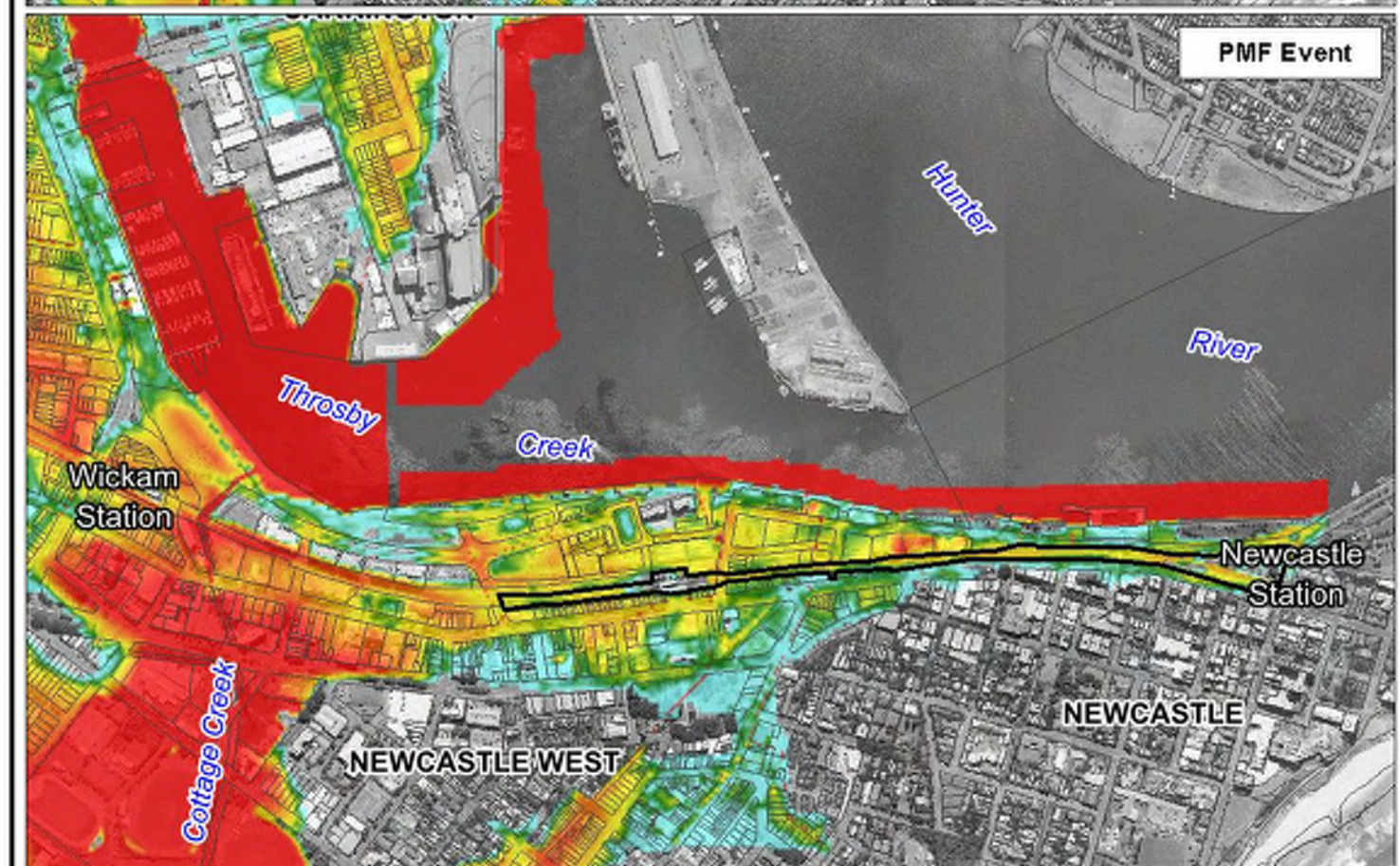
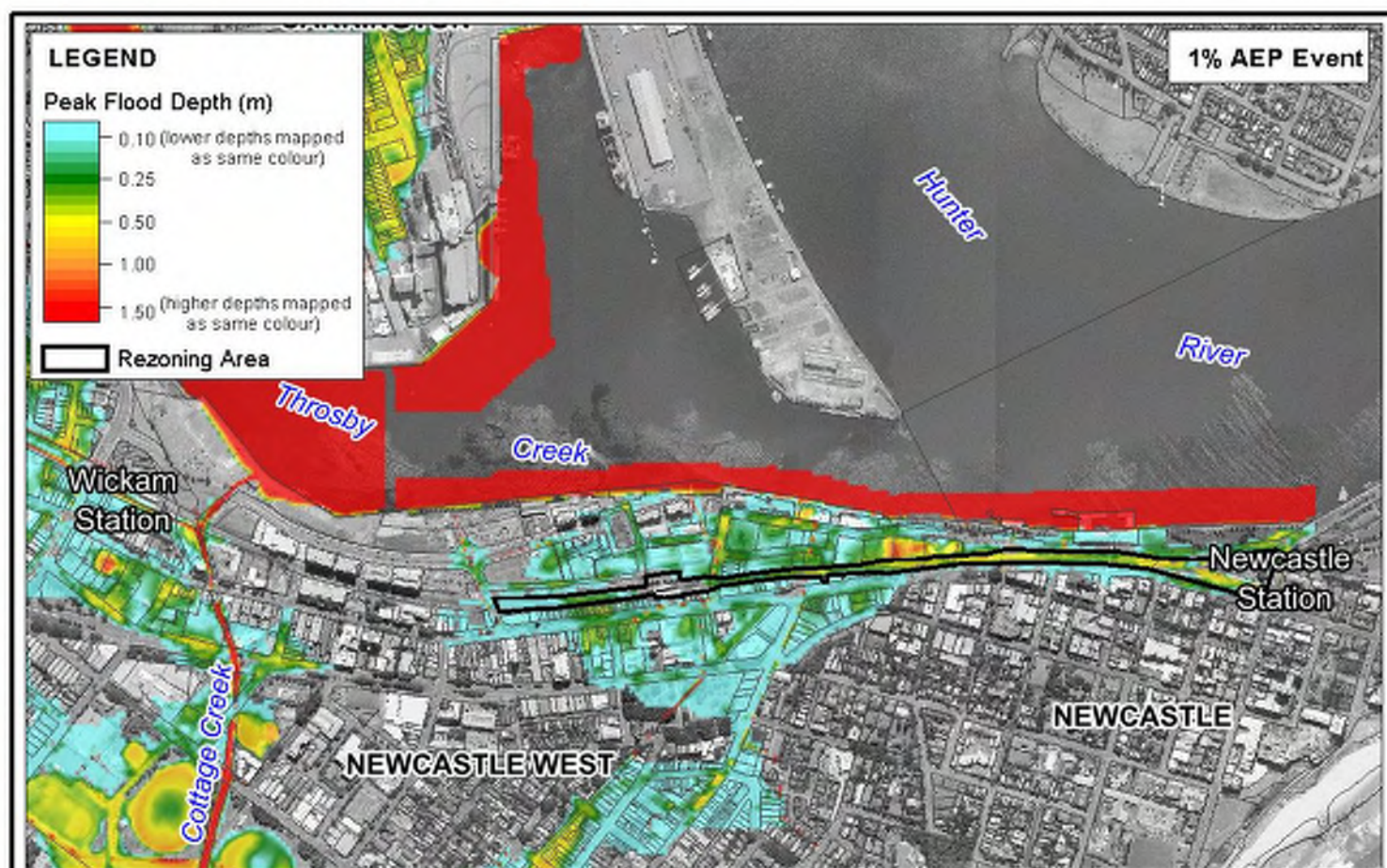
The simulated design flood inundation extents and depths across the study area for the 1% AEP and PMF events under existing conditions is shown in Figure 2-3.

The inundation across the development area at the 1% AEP design flood magnitude is largely characterised by relatively shallow depth of flooding (typically less than 0.3m) with some localised areas of higher depth often corresponding to low points in the local road network. There are some localised areas of higher flood depth shown within the existing rail corridor towards Newcastle Station. These areas also correspond to low points along the rail alignment, typically where the rail alignment is lower than adjacent land (i.e. effectively in shallow cutting). The higher flood depths shown in these areas are largely a function of the coarse model configuration and localised depressions in the underlying topography.

Overland flow regimes in urban environments can be quite complex with interconnecting and varying flowpaths once the design stormwater drainage capacity is exceeded. Road networks often convey a considerable proportion of floodwaters due to the hydraulic efficiency of the road surface compared to developed areas (eg. blocked by fences and buildings), in addition to the underground pipe network draining mainly to open channels. Excluding the main Cottage Creek catchment (i.e. areas west of Worth Place outside the proposed rezoning area) the contributing local catchments are relatively small. Accordingly, there is not a significant overland flooding risk within the project area up to the 1% AEP flood magnitude. This is reflected in the definition of hydraulic category (i.e. floodway/flood storage and flood fringe area) discussed further in Section 2.3.1

Other minor overland flow paths don't provide a major constraint to redevelopment of the corridor. The exact configuration and location of the local overland flow network through the corridor will ultimately be dependent on the finished land form within the redeveloped corridor. This level of detail on proposed finished surface levels within the corridor is not available at this stage of the flood risk assessment. Accordingly, there may be some local changes in the local overland flow distribution. However, noting the small contributing catchments and therefore relatively small flow magnitudes, it would be expected that effective management of the overland flows be readily accommodated through local drainage and overland flow provisions through the corridor. These would typically be located along existing road network alignments and the proposed open space connections.

At the PMF level there is greater inundation extent with higher depth of floodwaters. The flows generated in the local drainage catchments provide for extensive overtopping of the existing railway embankment. Again reference should be made to Section 2.3.1 in the definition of major floodway flow paths at the PMF level.



Title:

**Local Catchment Peak Flood Depths - 1% AEP and PMF Existing Conditions**

Figure:

**2-3**

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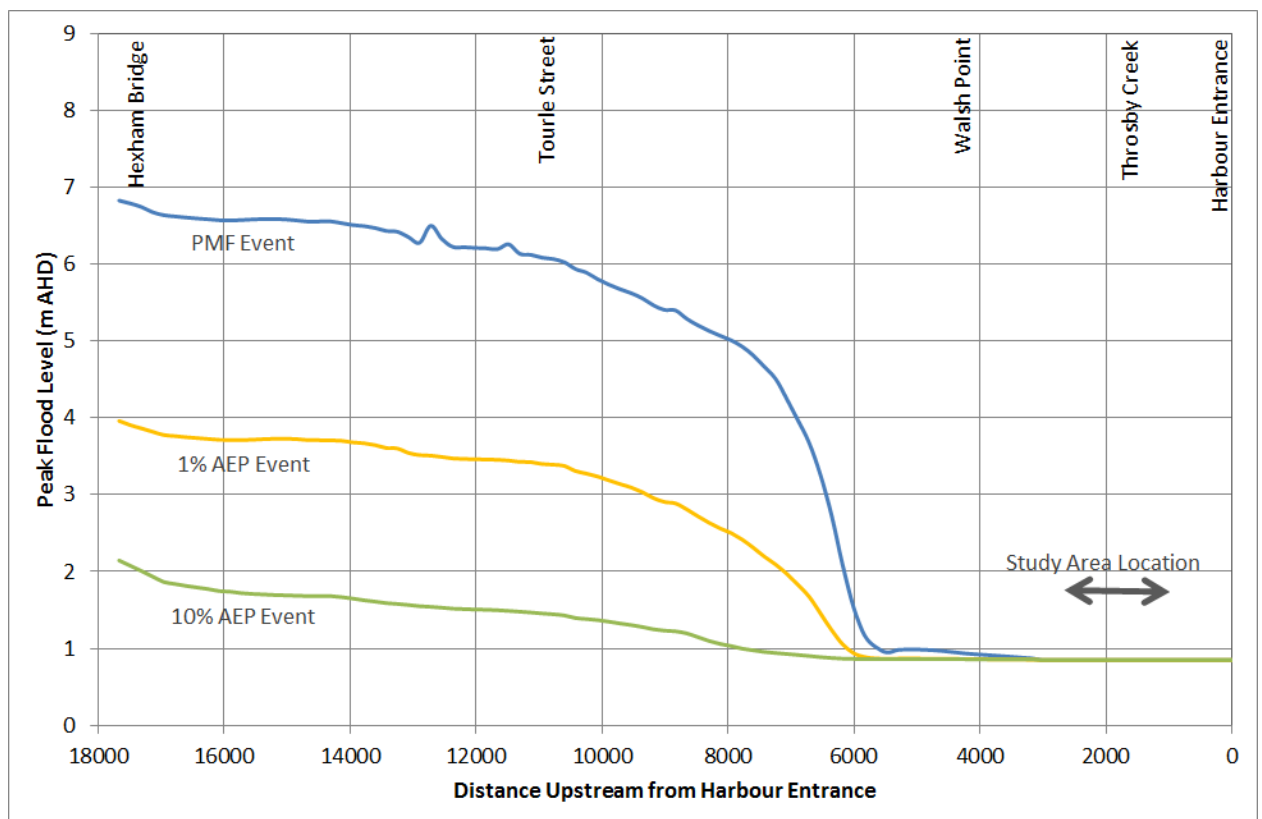
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### 2.2.3 Hunter River Flooding

The design Hunter River flooding conditions have been derived in the Lower Hunter River Flood Study (PWD, 1994) with some local refinement in the subsequent model upgrade report (DHI, 2009). The peak design flood level profiles (10% AEP, 1% AEP and PMF events) along the South Arm of the Hunter River between Hexham Bridge and the harbour entrance are shown in Figure 2-4. Included in the figure are key reference locations along the River and the approximate location of the study area (extent of the Carrington suburb boundary between Walsh Point and Throsby Creek).



**Figure 2-4 Hunter River (South Arm) Design Flood Level Profiles**

The study area is largely not directly impacted by major flooding in the Hunter River. As shown in Figure 2-4, all of the events presented have a peak flood level of the order 0.8-0.9m AHD in the reach of the Hunter River adjacent to Throsby Creek. This peak flood level corresponds to the adopted boundary condition at the harbour entrance, approximating a peak spring tide level. A very flat peak flood level gradient is evident through the lower reach of the Hunter River given its large conveyance which has been significantly enlarged through channel widening and dredging works.

## 2.3 Flood Risk Classifications

The key planning documents with consideration of flood risks in the Newcastle City Council LGA. include:

- Newcastle City Council Flood Policy 2003
- Newcastle Development Control Plan (DCP) 2012 – Section 4.01 Flood Management

- Newcastle City-wide Floodplain Risk Management Study and Plan 2012; and
- NSW Government Floodplain Development Manual (FDM) 2005

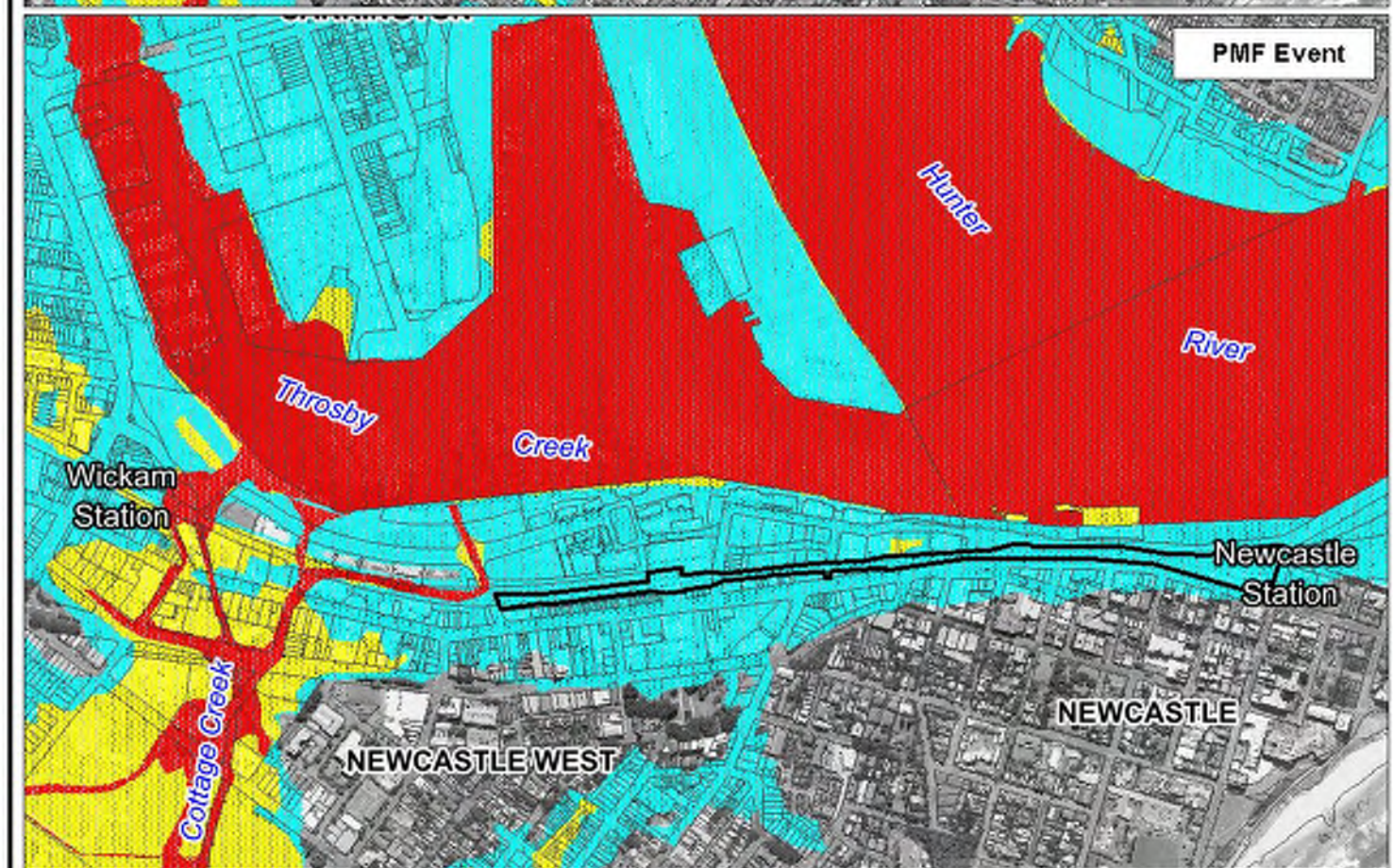
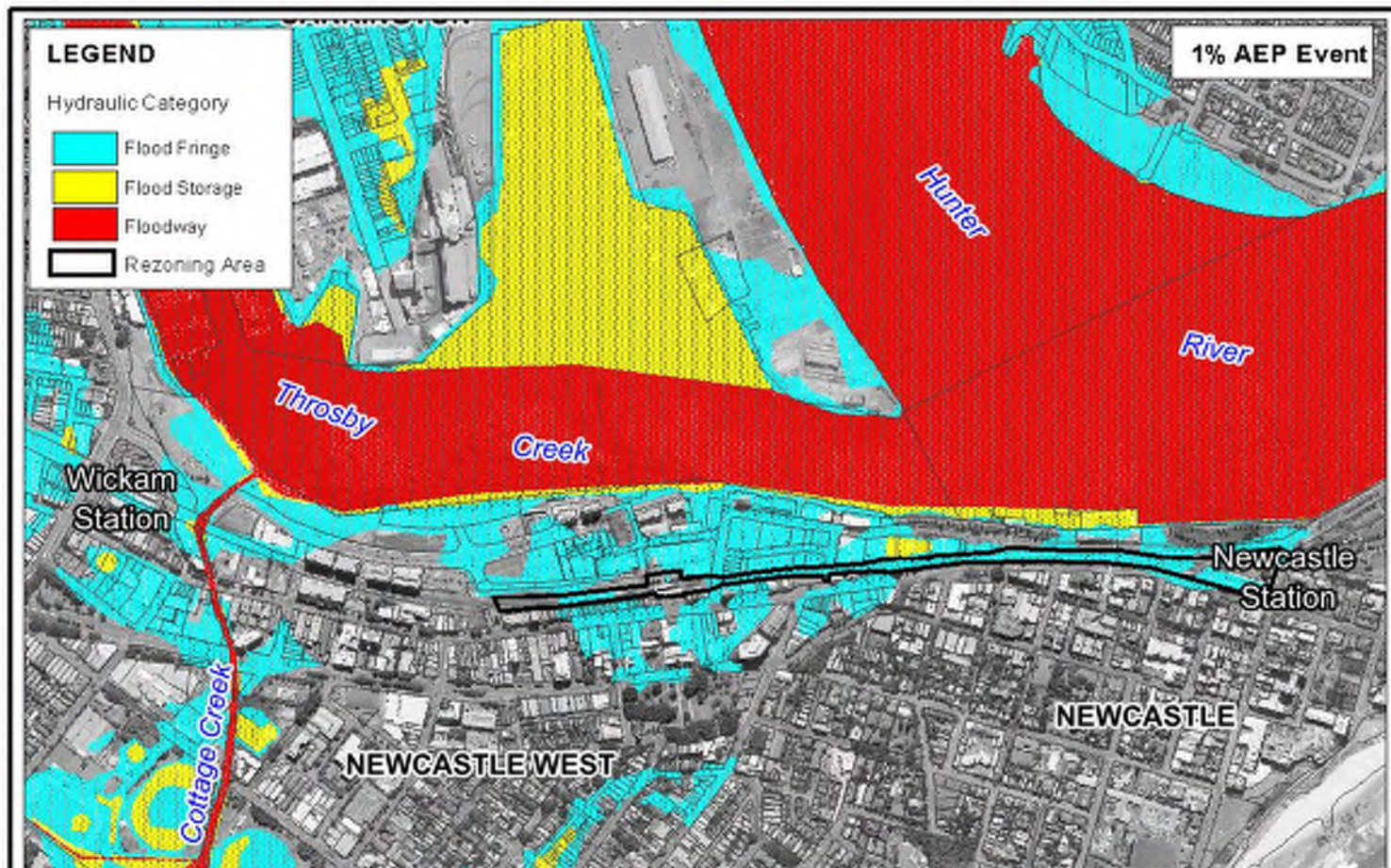
These documents provide information regarding processes to classify the severity of flooding in both quantitative and qualitative terms, and the policies and controls that are applicable to dwellings and developments on flood prone land based on these initial classifications.

### 2.3.1 Hydraulic Impact Categories

There are no prescriptive methods for determining what parts of the floodplain constitute floodways, flood storages and flood fringes. Descriptions of these terms within the FDM (NSW Government, 2005) are essentially qualitative in nature and emphasis is placed on the need for site specific consideration when determining appropriate methods for hydraulic category classification. The hydraulic categories as defined in the FDM, and the advised general guidelines to assist in the delineation of flooding and flood storage areas, are:

- **Floodway** - Areas that convey a significant portion of the flow. These are areas that, even if partially blocked, would cause a significant increase in flood levels or a significant redistribution of flood flows, which may adversely affect other areas.
- **Flood Storage** - Areas that are important in the temporary storage of the floodwater during the passage of the flood. If the area is substantially removed by levees or fill it will result in elevated water levels and/or elevated discharges. Flood Storage areas, if completely blocked would cause peak flood levels to increase by 0.1m and/or would cause the peak discharge to increase by more than 10%.
- **Flood Fringe** - Remaining area of flood prone land, after Floodway and Flood Storage areas have been defined. Blockage or filling of this area will not significantly affect the flood pattern or flood levels.

The adopted hydraulic impact categories in the Newcastle FRMS are shown in Figure 2-5 and identifies that majority of the site is classed as flood fringe. Flood fringe areas typically don't have major constraints with respect to development type subject to appropriate assessment of potential impacts. Further discussion on flood related development controls applicable to the proposed development site are presented in Section 3.



Title:  
**Hydraulic Categories - 1% AEP and PMF  
 Existing Conditions**

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**2-5**

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### 2.3.2 Property Hazard Categories

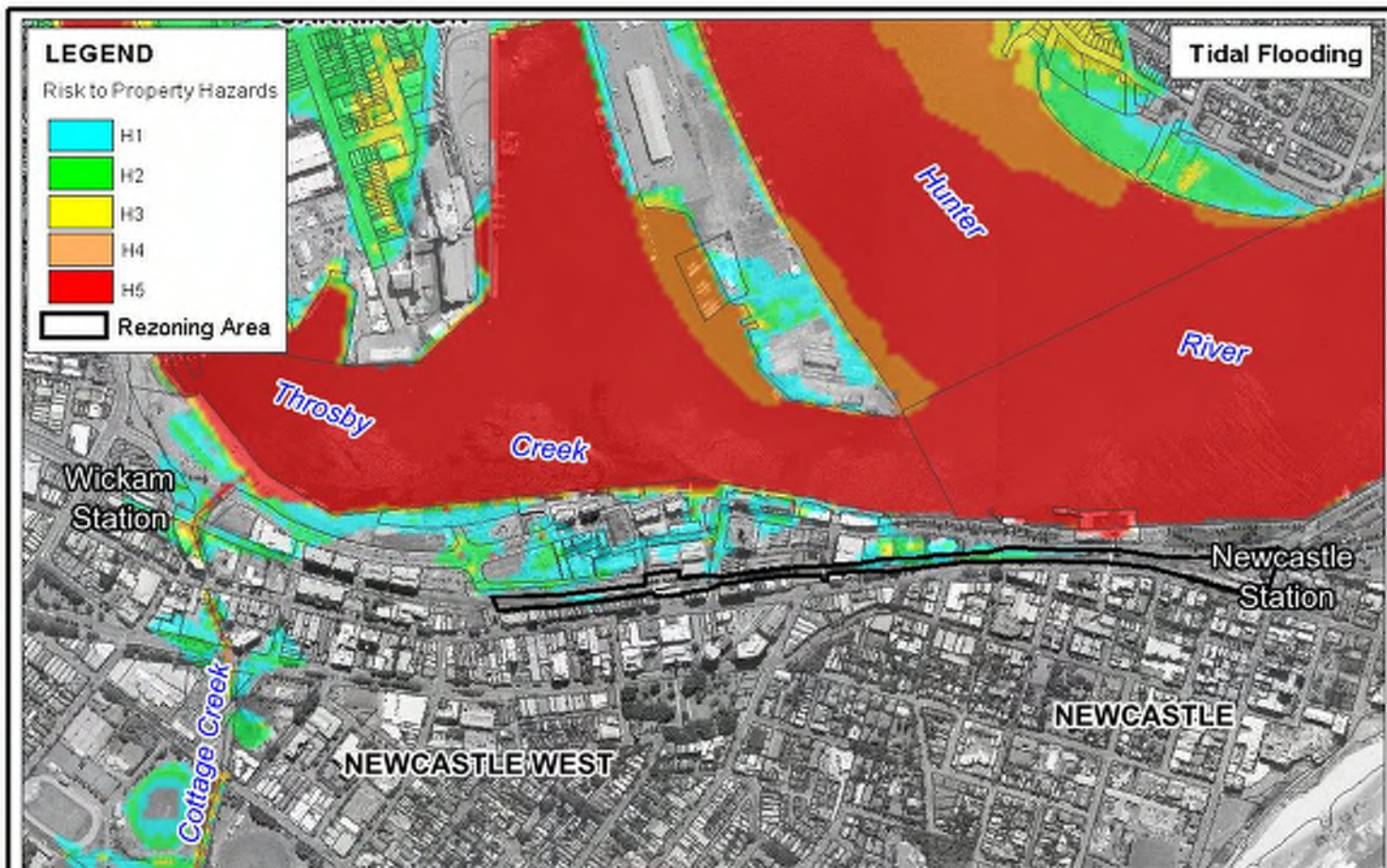
The combination of flood depths and flood velocities can be used to assess the risk to property and life based on the physical flood behaviour. Situations whereby flood depths are shallow, but velocities are high can be just as critical as situations where flood depths are large, but velocities are low. The combination of flood depths and flood velocities ( $v*d$ ) is defined as the flood hydraulic behaviour. Different values, or thresholds, for flood hydraulic behaviour helps to categorise the risk to people exposed to the flood, either directly as pedestrians, or indirectly inside a vehicle, or inside a building/structure. The hydraulic behaviour also aids in the categorisation of risk to property.

The hydraulic behaviour thresholds are described in Table 2-2, which outline associated technical equations in terms of flow depth and velocity. They are not inherently tied to any particular size or likelihood of flood, but rather, they just describe the stability of a chosen object (e.g. a type of building construction) in water of a particular depth and velocity.

**Table 2-2 Definition of Hydraulic Behaviour Thresholds (Newcastle City Council, 2003)**

Hydraulic Behaviour Threshold	Velocity-Depth Relationship	Risk to Property
H1	$v < 0.5\text{m/s}$ and $d < 0.3\text{m}$	P1 - Parked or moving cars remain stable
H2	$v < 2\text{m/s}$ , $d < 0.8\text{m}$ and $v < (3.2 - 4*d)$	P2 - Parked or moving heavy vehicles remain stable
H3	$v < 2\text{m/s}$ , $d < 2\text{m}$ and $v*d < 1$	P3 - Suitable for light frame construction
H4	$v < 2.5\text{m/s}$ , $d < 2.5\text{m}$ and $v*d < 2.5$	P4 - Suitable for heavy frame construction or structural reinforcement
H5	Remaining areas	P5 - Hydraulically unsuitable for normal building construction

The property hazard classification based on the above definition in the vicinity of the rezoning area is shown in Figure 2-6. The highest property hazard category across the majority of the site is H2. Typically this type of flood condition provides little constraint on the types of construction.



Title:  
**Property Hazard Categories - 1% AEP  
Existing Conditions**

Figure:  
**2-6**

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### 2.3.3 Life Hazard Categories

In addition to hydraulic behaviour, risks to life are influenced by the flooding mechanism (i.e. flash, river or ocean), as well as the availability of an evacuation route. Generally, evacuation can be expected from areas that are under threat from river or ocean flooding. As such, the risks to life in areas affected by river and ocean flooding are considered to be low. Flash flooding, however, can represent a significant risk, as there is generally little time to respond or evacuate. If there is an evacuation route available, which consists of a continuously rising route to flood free land (above the PMF level), then the risks in flash flood situations are reduced.

Risks to life categorisation adopted by Council has been developed taking into account both the availability for evacuation and the hydraulic behaviour, as presented in Table 2-3.

The Risks to Life criteria are determined based on PMF conditions. These extreme flood conditions are adopted as the FDM (2005) is explicit in requiring risks to life to be considered and managed over the full range of flood events (i.e. up to the most extreme conditions, or PMF).

**Table 2-3 Risk to Life Hazard Categories (adopted at the PMF level)**

			Hydraulic Behaviour Threshold				
			H1	H2	H3	H4	H5
Catchment Response Time	Riverine and Ocean Flooding		L1				
	Flash	Escape Route to flood free land	available	L2		L4	L5
			not available	L3			

Where:

- L1 Riverine flooding where there is sufficient time to remove people from the risk to their lives by means of formal community evacuation plans.
- L2 Short duration flash flooding with no warning time in circumstances where there is an obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles i.e. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential building are appropriate.
- L3 Short duration flash flooding with no warning time and no obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles i.e. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential buildings and appropriate.



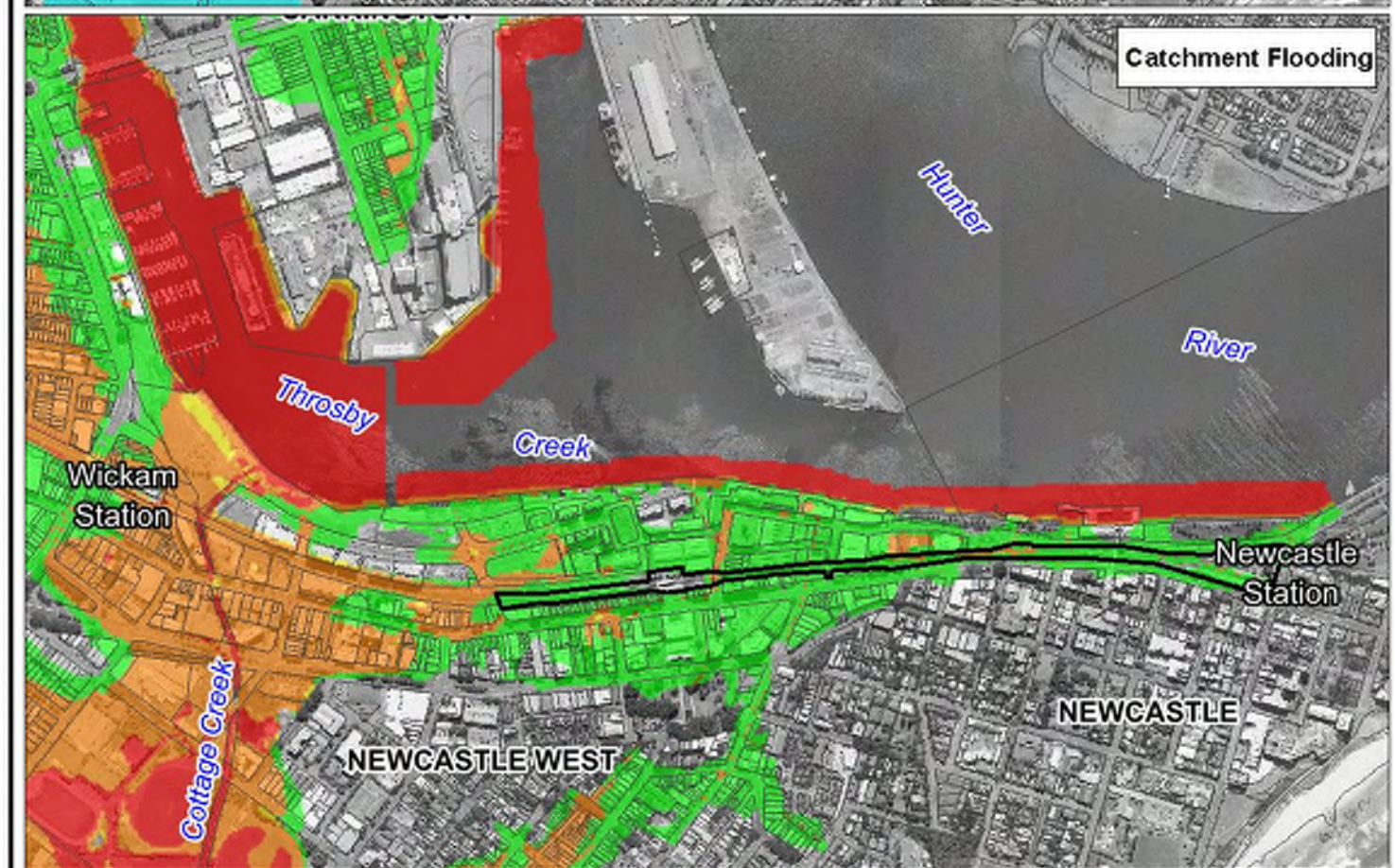
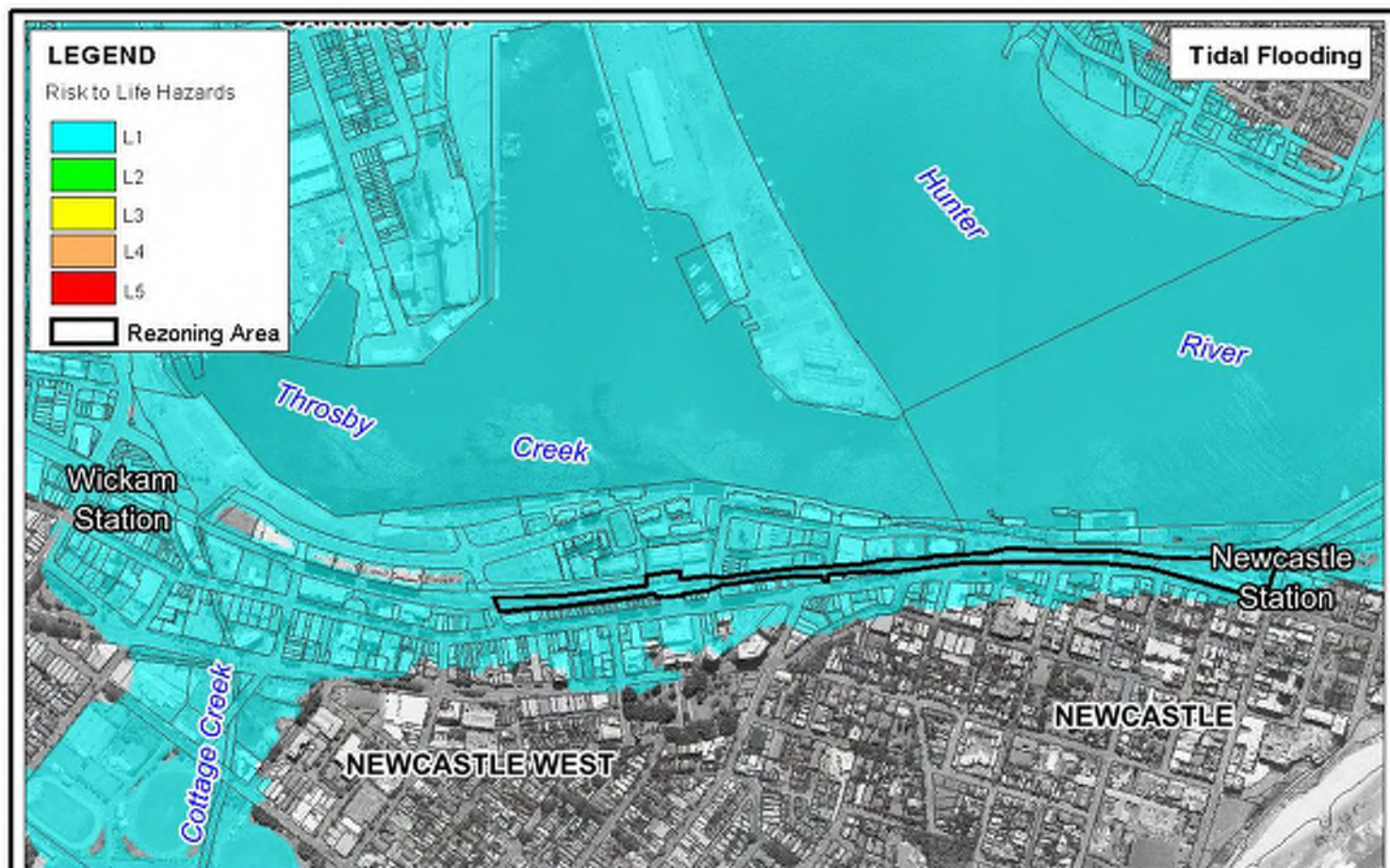
**Existing Flood Risk Environment**

- L4 Short duration flash flooding with no warning time and enclosing waters during the PMF not suitable for wading or heavy vehicles i.e. hydraulic threshold exceeds H<sub>2</sub>. On site refuge is necessary and if hydraulic threshold exceeds H<sub>3</sub>, heavy frame construction or suitable structural reinforcement required.
  
- L5 Short duration flash flooding with no warning time and enclosing waters during the PMF have too much energy for normal heavy building construction and therefore it is generally not possible to construct a flood refuge i.e. hydraulic threshold is H<sub>5</sub>. The risk to life is considered extreme and the site is unsuitable for habitation, either residential or short stay.

As noted in Table 2-3, the risk to life categorisation for the Hunter River and ocean flooding at the site is the lowest category L1. This is due to the significant warning times afforded to the site for flooding of this nature such that appropriate evacuation plans could be executed.

The local catchment flash flooding scenarios provide the dominant conditions in determining risk to life classification given the short warning times available. As shown on Figure 2-7, the risk to life category across the majority of the rezoning area is L2.

There are some isolated pockets of L4 classification. This L4 area is somewhat limited in extent, however, highlights the potential for rapidly enclosing floodwaters in which wading or driving through floodwaters as a means of evacuation may be difficult. Within the rezoning area, the L4 zones are limited to an existing overland flow path through Merewether Street (limited to the existing road corridor) and small areas of the existing rail corridor that are localised depressions in which the depth of inundation is driving the L4 classification (noting depressions likely to be removed by filling). The areas of existing L4 classification would not be expected to have major constraints on corridor redevelopment.



Title:  
**Life Hazard Categories - 1% AEP  
Existing Conditions**

Figure:  
**2-7**

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## 3 Flood Planning Controls

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### 3.1 Review of Regulatory Provisions

#### 3.1.1 State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71)

State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71) aims to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast. SEPP 71 aims for development in the NSW coastal zone to be appropriate and suitably located, in accordance with the principles of the Ecologically Sustainable Development (ESD). The policy provides for: the protection of and improvement to public access compatible with the natural attributes coastal foreshores; and protects and preserves Aboriginal cultural heritage, visual amenities of the coast, the beach environment and amenity, native coastal vegetation, marine environment of New South Wales, and rocky platforms.

The key elements of SEPP 71 with specific reference to flooding and water management constraints for the proposed development include consideration of:

- the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards, and
- the likely impacts of development on the water quality of coastal waterbodies.

Section 3.2 outlines the development constraints and design management with respect to the coastal planning provisions.

#### 3.1.2 The NSW Flood Prone Land Policy and Floodplain Development Manual

The NSW Flood Prone Lands Policy aims to reduce personal and public losses and impacts associated with flooding. The Policy does not attempt to preclude development from the floodplain, but rather, recognises the importance of floodplains for development purposes. The Policy promotes a merit-based approach to floodplain development, wherein all social, economic and ecological consequences are to be considered.

The merit-based approach of the Policy requires a holistic approach by Councils and other consent authorities when prescribing responses and requirements for existing and future development in accordance with the principles of the Floodplain Development Manual (2005). The Manual aims at a fundamental consistency of approach across Councils, and in particular seeks to clarify “the intent ... with respect to the determination of Flood Planning Levels and the consideration of rare floods up to the PMF (which) will reduce the potential for inconsistent interpretation by consent authorities”.

The policy is directed towards providing solutions to existing flooding problems in developed areas and ensuring that new development is compatible with the flood hazard and does not create additional flooding problems in other areas. The Policy and recommendations on how to apply the principles of the Policy are defined in the NSW Government’s Floodplain Development Manual (2005).

## Flood Planning Controls

The NSW Floodplain Development Manual (2005) presents general principles and a process for flood risk management, to enable councils and associated committees to understand flood behaviour, impacts and risks to communities. The Manual has been prepared to assist councils prepare flood risk plans through a staged floodplain risk management process.

The Newcastle City-wide Floodplain Risk Management Study and Plan (City-wide Flood Plan) has been developed to direct and co-ordinate the future management of flood prone lands across the City of Newcastle. Development of the City-wide Flood Plan has been guided by the NSW Government's Floodplain Development Manual (2005).

### 3.1.3 Newcastle LEP (2012)

Local Environmental Plans (LEP) are prepared in accordance with Part 3 Division 4 of the *Environmental Planning and Assessment Act 1979*. The intent of the LEP is to define the legal framework for land use and development by 'zoning' all land. The LEP incorporates standard planning provisions, clauses, definitions and zones into the one document. It identifies standard zones and zone objectives and specifies permitted and prohibited uses in zones, and identifies compulsory and optional provisions.

The Newcastle LEP (2012) does not contain a standard flood clause. It is understood Council negotiated with the Department of Planning and Environment to have no flood clause in its LEP, and instead rely on the Flood Management provisions of Council's adopted Development Control Plan (2012) (refer to Section 3.1.4). These provisions have been preserved in Council's companion revised Newcastle Development Control Plan, which became effective with the LEP gazettal.

In terms of managing coastal hazards, the LEP contains 'Part 5.5. Development within the Coastal Zone', which is a compulsory clause for all LEPs that apply to land within the coastal zone. Part 5.5 sets objectives and matters for consideration by the consent authority prior to granting consent to development on land wholly or partly within the coastal zone. The objectives include implementing the principles of the NSW Coastal, in particular including the objective to "(iv) recognise and accommodate coastal processes and climate change". In this regard, Part 5.5. states that development consent must not be granted unless the consent authority is satisfied that:

"(d) the proposed development will not:

- (i) be significantly affected by coastal hazards, or
- (ii) have a significant impact on coastal hazards, or
- (iii) increase the risk of coastal hazards in relation to any other land."

### 3.1.4 Newcastle Development Control Plan (2012)

The Newcastle Development Control Plan 2012 (DCP) provides guidelines to Development Applications for assessment by Council. Section 4.01 of Council's DCP addresses flood management, and applies to all development on flood prone land. The DCP aims to apply elements of the Newcastle Flood Policy in relation to proposed future development and provides

## Flood Planning Controls

specific guidelines on development within flood prone land. In particular, the DCP provides guidelines on:

- Development within floodways;
- Development within flood storage areas;
- Measures to minimise risks to property (linked to the Flood Planning Level);
- Measures to minimise risks to life (in particular, on site refuge for flash flooding only); and
- Riparian zone management and restoration.

The definition of various flood risk categories referred to on the DCP have been determined across the Newcastle LGA within the adopted City-wide Floodplain Risk Management Study and Plan. As noted, the Plan was developed under the guiding principles for floodplain management as outlined in the Floodplain Development Manual (2005). The DCP provisions in conjunction with Council's adopted flood risk mapping (as presented in Section 3 of this report) define the overarching floodplain risk management constraints for the proposed development.

None of the sections within the DCP provide guidance for managing or minimising risks from coastal hazards, in particular, erosion and recession, and coastal inundation with wave overtopping.

Section 4.01 Flood Management details provisions for managing flooding risks to development. While specific provisions for climate change are not given within this DCP section, the definition of "flooding" recognises the contribution of coastal inundation which is defined as "caused by seawater inundation due to king tides, storm surge, barometric effects, shoreline recession, subsidence, the enhanced greenhouse effect or other causes". The DCP does not directly address coastal inundation or climate change. Instead, for coastal inundation and climate change to be managed through these DCP provisions, they would need to be incorporated when determining the flood planning level.

## 3.2 Development Constraints

### Flooding

Section 2 and 3 outline the expected flood conditions at the site for the key flood planning events and the typical classifications used for flood planning in accordance with Council policies. Provided hereunder is a summary of the key flood related development controls appropriate to the proposed development site.

- Flood Planning Level – 2.8m AHD – the flood planning levels for proposed new buildings is expected to be derived from the peak 1% AEP Flood Level from ocean flooding incorporating 0.9m sea level rise allowance and appropriate 0.5m freeboard allowance. This would provide for the minimum occupiable floor levels for proposed developments. Other floor level controls may relate to parking entries/basements etc.
- Flood Classification – the only area classified as floodway in Council's existing mapping (refer to Figure 2-5) in the vicinity of the rezoning area is the extension of the overland flow path along Worth Place. However, there is no floodway area within the proposed rezoning boundary. The

## Flood Planning Controls

remainder of the rezoning area is largely classified as flood fringe. By definition, blockage or filling of this area will not significantly affect the flood pattern or flood levels. This would be demonstrated by appropriate detailed modelling of design development layouts to support future Development Applications.

- Risk to Life – the high hazard areas within the rezoning area are limited to the existing overland flow path along existing road alignments and localised depressions within the rail corridor (refer to Figure 2-7). It is envisaged that in providing greater connectivity through open space area, there will be the potential to increase the areas of high hazard. Whilst typically not constraining development, given the high flash flood risk, consideration will need to be given to evacuation and emergency response opportunity in these public space areas. It is envisaged this can be achieved through future design phases with opportunity to provide pedestrian access to suitable areas of refuge above the PMF extent and modification of ground levels to remove localised depressions.

For the full suite of development controls, reference should be made to Section 4.01 Flood Management of Councils DCP 2012.

### Coastal

Given the proximity of the rezoning area to the Hunter River estuary, the proposal constitutes Development in the Coastal Zone. Provided hereunder is a summary of the key development constraints related to coastal zone management:

- Coastal Processes – the scale and nature of the proposed development is such that it would have insignificant impact on the coastal processes of the broader Hunter River estuary. The works provide for no significant changes to existing overland flow distributions or tidal dynamics of the estuary. The development site is adjacent to the estuarine reaches of Throsby Creek, with the existing shoreline being a hard engineered sea wall. Accordingly there is considered no significant coastal erosion/recession risk to be managed for the development. The site may be impacted upon by coastal flooding, which may be exacerbated by potential climate change influences such as sea level rise. However, existing flood risk policies and appropriate development controls include consideration of the coastal inundation risk.
- Protection of coastal environment – as noted, the development is not expected to have any significant changes in existing flow regimes, however, there is some potential for potential impacts on water quality in the estuary. Again, given the nature and scale of the development, appropriate control of these risks are expected to be effectively managed through development of appropriate stormwater management and erosion/sedimentation control plans for both construction and operational phases of the development. In developing these plans, more detailed consideration of potential pollutant sources will need to be considered including existing contaminated lands and acid sulphate soil areas.

The constraints identified above are expected to be effectively managed through the design phases of the redevelopment through the development of an appropriate flood risk management plan and stormwater/water quality management plan. The local detail of plans will be dependent on the proposed built form environments and accordingly concept plans would be developed through the

design process in future planning stages. At this rezoning planning phase it is considered there are no major constraints on the proposed future development from a flooding/stormwater perspective.

## 4 Consistency with Flood Prone Land Direction

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Parts of the land to which the planning proposal applies are affected by flooding. By seeking to change the land use zoning in a Flood Planning Area, and thereby increasing the potential for an increase in flood risk exposure on the land, the proposal needs to demonstrate consistency with Section 117 Direction 4.3 Flood Prone Land.

The consistency with the flood planning direction is demonstrated through the preparation of the planning proposal being in accordance with the relevant Newcastle City-wide Floodplain Risk Management Plan, developed on the principles of the NSW Governments Flood Policy and the NSW Floodplain Development Manual. The planning proposal has considered relevant flood planning controls (Section 4.01 Newcastle Development Control Plan 2012) developed as a direct result of the City-wide FRMP.

Any risks associated with higher density development will be effectively dealt with through flood planning development controls at the DA stage. No development in the rezoned areas will be permitted without consent. Accordingly, application of development control policies through the development approval process would provide for appropriate flood planning conditions such as:

- New development which occurs will be developed in such a way as to effectively avoid, minimise, or mitigate the flood risk according to the individual circumstances of each site.
- Physical impacts, brought about by increases to building footprints or the presence of walls and fences which might interfere with overland flows will be effectively dealt with by Council's flood planning controls.
- The requirement for a flood evacuation strategy or a site emergency response flood plan will ensure that no additional risk to life or property occurs in these areas as a result of increased population density.

### 4.1 Summary of Response to S.117 Direction 4.3 Flood Prone Land

#### Objectives

(1) The objectives of this direction are:

(a) to ensure that development of flood prone land is consistent with the NSW Government's Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005, and

(b) to ensure that the provisions of an LEP on flood prone land is commensurate with flood hazard and includes consideration of the potential flood impacts both on and off the subject land.

#### Where this direction applies

(2) This direction applies to all relevant planning authorities that are responsible for flood prone land within their LGA.

- The direction applies. City of Newcastle is responsible for flood prone land.



### When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that creates, removes or alters a zone or a provision that affects flood prone land.

- The direction applies. The Planning Proposal seeks to alter a zone that affects flood prone land.

### What a relevant planning authority must do if this direction applies

(4) A planning proposal must include provisions that give effect to and are consistent with the NSW Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas).

- Consistent. The Newcastle LEP (2012) does not contain a standard flood clause. It is understood Council negotiated to have no flood clause in its LEP, and instead rely on the Flood Management provisions of Council's adopted Development Control Plan (2012). These provisions are consistent with the NSW Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005. The Planning Proposal will not alter flood prone land provisions within the DCP2012.

(5) A planning proposal must not rezone land within the flood planning areas from Special Use, Special Purpose, Recreation, Rural or Environmental Protection Zones to a Residential, Business, Industrial, Special Use or Special Purpose Zone.

- Inconsistent. The Planning Proposal intends to rezone land from SP2 Infrastructure to B4 Mixed Use. However, the area is generally classified as low risk precinct such that application of appropriate development controls is expected to provide effective flood risk management to enable change in land use without increase in overall flood risk.

(6) A planning proposal must not contain provisions that apply to the flood planning areas which:

(a) permit development in floodway areas,

- Consistent. No parts of the subject lands are located within a floodway area. Further, the planning proposal does not include provisions that permit development to be carried out without development consent. Existing development controls will effectively restrict new residential or commercial development from occurring within floodway zones which would be incompatible with the flood hazard.

(b) permit development that will result in significant flood impacts to other properties,

- Consistent. The planning proposal does not include provisions that permit development to be carried out without development consent. Existing development controls require consideration of potential adverse flood impact in the development assessment process.

(c) permit a significant increase in the development of that land,

- Inconsistent. The rezoning of parcels to B4 Mixed Use provides the opportunity for increased development from the existing rail corridor. However, the area is generally classified as low risk precinct such that application of appropriate development controls is

expected to provide effective flood risk management to enable proposed development yields to be realised without increase in overall flood risk.

(d) are likely to result in a substantially increased requirement for government spending on flood mitigation measures, infrastructure or services, or

- Consistent. Future redevelopment consistent with the new zoning will be required to satisfy objectives of Councils flood policy objective to reduce the risks and costs of flooding to existing areas.

(e) permit development to be carried out without development consent except for the purposes of agriculture (not including dams, drainage canals, levees, buildings or structures in floodways or high hazard areas), roads or exempt development.

- Consistent. The planning proposal does not include provisions that permit development to be carried out without development consent.

(7) A planning proposal must not impose flood related development controls above the residential flood planning level for residential development on land, unless a relevant planning authority provides adequate justification for those controls to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).

- Consistent. The Planning Proposal will not impose flood related development controls above the residential flood planning level for residential development on land.

(8) For the purposes of a planning proposal, a relevant planning authority must not determine a flood planning level that is inconsistent with the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas) unless a relevant planning authority provides adequate justification for the proposed departure from that Manual to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).

- Consistent. The flood planning levels adopted by Council are based on the City-wide Floodplain Risk Management Study and Plan (2012) which has been prepared in accordance with the Floodplain Development Manual 2005.

### Consistency

(9) A planning proposal may be inconsistent with this direction only if the relevant planning authority can satisfy the Director-General (or an officer of the Department nominated by the Director-General) that:

(a) the planning proposal is in accordance with a floodplain risk management plan prepared in accordance with the principles and guidelines of the Floodplain Development Manual 2005, or

- Applicable. The rezoning proposal has considered provisions and is consistent with Newcastle City-wide Floodplain Risk Management Plan developed under the guiding principles for floodplain management as outlined in the Floodplain Development Manual (2005).

(b) the provisions of the planning proposal that are inconsistent are of minor significance.

- Not applicable

## 5 References

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- BMT WBM (2012) *Newcastle City-wide Floodplain Risk Management Study and Plan*
- Newcastle City Council (2003) *Newcastle Flood Policy*
- Newcastle City Council (2004) *Newcastle Stormwater Management Plan*
- NSW Government (2005) *Floodplain Development Manual*
- Newcastle City Council (2012) *Newcastle Development Control Plan – Section 4.01 Flood Management*
- WBM, 2006. *Throsby Creek and Cottage Creek Flood Study*. Prepared for City of Newcastle.

## Appendix A Newcastle DCP Section 4.01 Flood Management

## 4.01 Flood Management



### Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Details
1	15/11/2011	15/06/2012	New

### Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined as though the provisions of this section did not apply.

### Land to which this section applies

This section applies to all development on flood prone (= flood liable) land in the Newcastle Local Government Area, as defined by Council's Flood Policy - (adopted 2004) and *The NSW Government Floodplain Development Manual – the management of flood liable land (2005)*, being "land susceptible to flooding by the PMF event" \*.

A flood information application form can be obtained from Council's website: ([www.newcastle.nsw.gov.au](http://www.newcastle.nsw.gov.au)) or Council's Customer Enquiry Centre, City Administration Centre, 282 King Street Newcastle NSW 2300.

### Development (type/s) to which this section applies

All of these provisions apply to all development on flood prone land with the exception of minor additions to existing buildings.

**Minor additions** (refer to definitions) are allowable without further reference to the provisions of this section, provided that the flood risk is not unreasonably increased.

### Applicable environmental planning instruments

The provisions of the Newcastle Local Environmental Plan 2012 also applies to development applications to which this section applies.

In the event of any inconsistency between this section and the above environmental planning instrument, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: Section 74E (3) of the *Environmental Planning and Assessment Act 1979* enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

\* Supplementary note (not required for application of this DCP): This definition remains unchanged to that defined by the previous Element 4.3 Flood Management Newcastle DCP 2005.

## Associated technical manual/s

- *The NSW Government Floodplain Development Manual – the management of flood liable land (2005)*. This Manual is available from the NSW Government website at the time of writing ([www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)) or a copy may be viewed at Council's Customer Enquiry Centre.

## Additional information

More information about floodplain risk management in the Newcastle Local Government Area can be found at Council's website. Copies of various flood studies and reports are also available for viewing at Council's Customer Enquiry Centre.

## Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 – Glossary and include:

- **Annual exceedance probability (AEP)** – is the probability that a flood of a given or larger magnitude will occur within a period of one year. Its reciprocal is equivalent to average recurrence interval.
- **Average recurrence interval (ARI)** – the average period between the recurrence of a storm event of at least a given rainfall intensity. The ARI represents a statistical probability. For example, a 10 year ARI indicates an average of 10 events over 100 years. The ARI is not the period between actual events.
- **Basement garage** – is a garage normally used for the parking of vehicles with the floor constructed below the street level.
- **Flood fringe areas** - the remaining area of the floodplain not included in flood storage areas and floodways. Flood fringe areas can usually be developed without reference to how that development will affect the flood behaviour either upstream or downstream.
- **Flood information certificate** - is a certificate issued by Council that provides information about the likelihood, extent or other characteristics of flooding known to affect a specified parcel of land.
- **Flooding** - is relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river estuary, lake or dam, and/or local overland flooding associated with major drainage, and/or coastal inundation resulting from super-elevated sea levels and/or waves , excluding tsunamis. Accordingly, flooding may occur due to a variety of reasons, either separately or in combination including:
  - river flooding - caused by a river or stream overtopping its banks onto the surrounding floodplain
  - urban flooding - caused by urban stormwater flows during an intense rainfall event, such as surface flows, surcharge from piped drainage systems or overflow from man-made stormwater channels.
  - coastal inundation - caused by sea water inundation due to king tides, storm surge, barometric effects, shoreline recession, subsidence, the enhanced greenhouse effect or other causes.

- **Flood liable land** - is synonymous with flood prone land (ie) land susceptible to flooding by the PMF event on the basis of flood information held by Council. Note that the term flood liable land covers the whole floodplain, not just that part below the FPL (see flood planning area).
- **Floodplain** - an area of land along the course of a river that is subject to periodic inundation due to the river overtopping its bank. It is commonly delineated by the area that would be flooded by an event with a given average recurrence interval.
- **Flood planning area** - the area of land below the FPL. Note that development controls that mainly relate to risk to property apply to the flood planning area, but other development controls mainly relating to risk to life and floodways and flood storages may apply to the remainder of flood liable (prone) land.
- **Flood planning level (FPL)** - is the level of the planning flood plus an additional freeboard as advocated in the NSW Floodplain Development Manual. For purposes of this element, the planning flood is the 1% Annual Exceedance Probability flood, and the freeboard is generally 500mm.
- **Flood prone land** - is land that, on the basis of flood information held by Council, is estimated to be inundated by the probable maximum flood.
- **Flood refuge** - is an area free of flooding. It can be either higher ground or it could be in the form of an area of the building, either constructed specifically for the purpose or as an intrinsic part of the building.
- **Flood storage area** - is an area where flood water accumulates and the displacement of that floodwater will cause a significant redistribution of floodwaters, or a significant increase in flood levels, or a significant increase in flood frequency. Flood storage areas are often aligned with floodplains and usually characterised by deep and slow moving floodwater.
- **Floodway** - those areas of the floodplain where a significant discharge of water flows during floods; often aligned with obvious naturally defined channels. Floodways are areas which, even if only partially blocked, would cause a significant redistribution of flood flow or increase in flood levels, which may in turn adversely affect other areas.
- **Freeboard** - is a margin applied to the estimation of flood levels to compensate for factors such as wave action, localised hydraulic behaviour, climatic change and modelling confidence.
- **Hydraulic behaviour threshold** - is a set of circumstances (that may or may not be present at some locations at some time in any particular sized flood) that constitutes a particular level of hydraulic impact, as specified below:

H <sub>1</sub>	hydraulically suitable for parked or moving cars $V < 0.5\text{m/sec}$ and $d < 0.3\text{m}$
H <sub>2</sub>	hydraulically suitable for parked or moving heavy vehicles and wading by able-bodied adults $V < 2\text{m/sec}$ , $d < 0.8\text{m}$ and $v < 3.2 - 4*d$
H <sub>3</sub>	hydraulically suitable for light construction ( <i>eg. timber frame and brick veneer</i> ) $v < 2\text{m/sec}$ , $d < 2\text{m}$ , $v*d < 1$
H <sub>4</sub>	hydraulically suitable for heavy construction ( <i>eg. steel frame and reinforced concrete</i> ) $v < 2.5\text{m/sec}$ , $d < 2.5\text{m}$ and $v*d < 2.5$
H <sub>5</sub>	generally unsuitable



**Life hazard** - is the 'risk to life hazard category' as a combination of hydraulic hazard category, warning time and escape path availability, applied to all floods, up to and including the PMF (as required by the NSW Government Floodplain Development Manual for the management of personal safety). For simplicity, the Life Hazard categories set out below are only assessed at the PMF in the application of this DCP section, on the assumption that once the PMF is managed for personal safety, all other lesser floods will also be managed. The life hazards "L1" to "L5" are defined below\*:

				Hydraulic Behaviour Threshold				
				H1	H2	H3	H4	H5
Catchment Response Time	Riverine			L1				
	Flash	Escape Route to flood free land	available	L2		L4		L5
			not available	L3				

L1	Riverine flooding where there is sufficient time to remove people from the risk to their lives by means of formal community evacuation plans. Not relevant to flash flooding scenarios such as the Wallsend Catchment.
L2	Short duration flash flooding with no warning time in circumstances where there is an obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles ie. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential building are appropriate.
L3	Short duration flash flooding with no warning time and no obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles ie. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential buildings and appropriate.
L4	Short duration flash flooding with no warning time and enclosing waters during the PMF not suitable for wading or heavy vehicles ie. hydraulic threshold exceeds H2. On site refuge is necessary and if hydraulic threshold exceeds H3, heavy frame construction or suitable structural reinforcement required.
L5	Short duration flash flooding with no warning time and enclosing waters during the PMF have too much energy for normal heavy building construction and therefore it is generally not possible to construct a flood refuge ie. hydraulic threshold is H5. The risk to life is considered extreme and the site is unsuitable for habitation, either residential or short stay.

\* Supplementary note (not required for application of this DCP): This definition remains unchanged to that defined by the previous Element 4.3 Flood Management Newcastle DCP 2005.

- **Minor additions** - (for the purpose of section 4.01 Flood Management) are additions that fall below the following limits:

Existing building area	Minor addition limit
< 250m <sup>2</sup>	50m <sup>2</sup>
250m <sup>2</sup> – 750m <sup>2</sup>	20% of the existing building area
>750m <sup>2</sup>	150m <sup>2</sup>

- **Occupiable rooms** – rooms of buildings where people may be present in the normal use of the building.
- **Planning flood** - is the flood event from which the flood planning level is derived. It is expressed in terms of the probability of the event being exceeded, usually within any given year (see annual exceedance probability).
- **Probable maximum flood (PMF)** - is the largest flood that could conceivably occur at a particular location.
- **Probable maximum flood level** - the flood level calculated to be the maximum which is likely to occur.
- **Property hazard** - is the 'risk to property hazard category' as a combination of hydraulic behaviour threshold and its effect on property. The risk to property hazards are based on the peak hydraulic behaviour thresholds ( $H_1$ - $H_5$ ) determined for the 1 in 100 annual chance flood. Five risks to property hazard categories (P1-P5) are defined as P1-P5 correlate directly with H1-H5 as follows\* :

P <sub>1</sub>	Parked or moving cars remain stable ie. equivalent to areas of H <sub>1</sub> at the Flood Planning Event.
P <sub>2</sub>	Parked or moving heavy vehicles remain stable ie. equivalent to areas of H <sub>2</sub> at the Flood Planning Event.
P <sub>3</sub>	Suitable for light construction (eg. timber frame, masonry and brick veneer) ie. equivalent to areas of H <sub>3</sub> at the Flood Planning Event.
P <sub>4</sub>	Suitable for heavy construction (eg. steel frame, reinforced concrete) ie. equivalent to areas of H <sub>4</sub> at the Flood Planning Event.
P <sub>5</sub>	Hydraulically unsuitable for normal building construction is equivalent to areas of H <sub>5</sub> at the Flood Planning Event.

The distribution of P<sub>1</sub>-P<sub>5</sub> is identical to the related H<sub>1</sub>-H<sub>5</sub> (at the Flood Planning Event).

- **Tsunami** - a series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as:
  - earthquakes
  - landslide
  - volcanic eruptions
  - explosions
  - meteorites.

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\* Supplementary note (not required for application of this DCP): This definition remains unchanged to that defined by the previous Element 4.3 Flood Management Newcastle DCP 2005.

## Aims of this section

1. To guide the development of floodprone land, applying balanced strategies to economically, socially and environmentally manage risk to life and property.
2. To set aside appropriate areas to convey and/or store flood waters.
3. To ensure development, when considered both individually and as an instance of cumulative development trends, will not cause unreasonable adverse flooding impacts in other locations.
4. To implement the principles of *The NSW Government Floodplain Development Manual (2005)* to new development as applicable.

Notes: Tsunami and very minor nuisance flooding (such as the trapping of surface runoff in a road shoulder or against a building) are specifically excluded from the application of the DCP.

The life risk hazard category “L1” assumes people will respond to warnings and safely evacuate to the safety flood free high ground. Additional requirements may be necessary to manage personal safety in riverine flooding if there is evidence that a lack of response is likely, and this may lead to life threatening situations.

## 4.01.01 Floodways

### Objectives

1. Retain floodways in a condition capable for the conveyance of essential flood flow.

### Controls

1. No building or structure erected and no land filled by way of the deposition of any material within any area identified as a floodway except for minor alterations to ground levels which do not significantly alter the fundamental flow patterns for:
  - (a) roads
  - (b) parking
  - (c) below ground structures
  - (d) landscaping.
2. Where dividing fences across floodways are unavoidable, they are constructed only of open type fencing that does not restrict the flow of flood waters and are resistant to blockage. New development shall be designed to avoid fences in floodways.

Note: Floodways are shown on a flood information certificate obtainable on application from Council. In general, development other than low level driveways and parking areas is not practicable in floodways. Floodways are not necessarily indicative of high hazard flow, although the two will generally coincide. It is necessary to separately investigate hazard in order to determine if parking areas and the like are suitable within floodways.

## 4.01.02 Flood storage areas

### Objectives

1. Protect flood storage areas to provide storage of floodwaters to ensure that other areas are not significantly worse off due to development of the site.

### Controls

1. Not more than 20% of the area of any development site in a flood storage area is filled. The remaining 80% is generally developed allowing for underfloor storage of floodwater by the use of suspended floor techniques such as pier and beam construction.
2. Where it is proposed to fill development sites, the fill does not impede the flow of ordinary drainage from neighbouring properties, including overland flow.

Note: Flood storage areas are identified on the flood information certificate.

## 4.01.03 Management of risk to property

### Objectives

1. Manage risks to property up to an acceptable level of risk (the flood planning level).

### Controls

1. Floor levels of all occupiable rooms of all buildings are not set lower than the FPL.
2. Garage floor levels are no lower than the 1% Annual Exceedance Probability Event. However, it is recognised that in some circumstances this may be impractical due to vehicular access constraints. In these cases, garage floor levels are as high as practicable.
3. Basement garages may be acceptable where all potential water entry points are at or above the probable maximum flood (PMF), excepting that vehicular entry points can be at the FPL. In these cases, explicit points of refuge are accessible from the carpark in accordance with the provisions for risk to life set out below.
4. Electrical fixtures such as power points, light fittings and switches are sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.
5. Where parts of the building are proposed below the flood planning level, they are constructed of water-resistant materials.
6. Areas where cars, vans and trailers are parked, displayed or stored are not located in areas subject to property hazard of P2 or higher. Containers, bins, hoppers and other large floatable objects also are not stored in these areas. Heavy vehicle parking areas are not located in areas subject to property hazard P3 or higher.

7. Timber framed, light steel construction, cavity brickwork and other conventional domestic building materials are generally not suitable forms of construction where the property hazard is P4 or higher. Where property hazard is P4, the structure is certified by a practising structural engineer to withstand the hydraulic loads (including debris) induced by the flood waters.
8. Property hazards of P5 are generally unsuitable for any type of building construction and building is discouraged from these areas. Where building is necessary, the structure is certified by a practising structural engineer to withstand the hydraulic loads (including debris) induced by the flood waters.

Note: This provision limits the risk of inundation relative to the flood planning level (FPL). The FPL is the water surface level of the relevant 'planning flood' plus a freeboard. Compliance with the flood planning level does not guarantee that flooding will not affect work carried out in accordance with Risk to Property Development Controls: In most cases, the flood planning levels and the property hazards are given on the flood information certificate for the relevant property. The "planning flood" for all development in all areas of Newcastle is the 1% Annual Exceedance Probability event.

#### 4.01.04 Management of potential risk to life

##### **Objectives**

1. Only permit new development or redevelopment where the full potential risk to life from flooding can be managed for all floods up to and including the PMF.

##### **Controls**

###### Risk to life category L5

1. Risk to life hazards of L5 are generally unsuitable for any type of building construction and building is discouraged from these areas. Reliable safe escape to high ground is likely not possible and normal building construction would likely suffer structural failure from the force of floodwaters, so that any people seeking refuge in the building would likely perish. Where building is necessary, the structure is certified by a practising structural engineer to withstand the hydraulic loads (including debris) induced by the flood waters.

###### Islands

2. The formation of islands in the floodplain during a flood is a potentially dangerous situation, especially when floods larger than the FPL totally inundate the island for an extended period. Development of such land is considered with great care.

### On-site refuge

3. On-site refuge is to be provided for all development where the life hazard category is L4 unless the proposed development is less than 40m from the perimeter of the PMF extent and the higher ground is accessible.

Note: Refuge can be in the form of on-site refuge or convenient access to flood free ground. In general, it is not acceptable to rely on refuge provided by or on other development sites. In all cases where on site refuge is provided, it is to be both intrinsically accessible to all people on the site and an integrated part of the development (eg a second storey with stair access). The route to the refuge is to be fail safe, plainly evident and self-directing. In most cases, life hazard categories are nominated on the flood information certificate for the relevant property.

### Standards for on-site refuge

4. Where on-site refuge is required for a development, it should comply with the following minimum standards:
  - (a) The minimum on-site refuge level is the level of the PMF. On-site refuges are designed to cater for the number of people reasonably expected on the development site and are provided with emergency lighting.
  - (b) On-site refuges are of a construction type able to withstand the effects of flooding. Design certification by a practising structural engineer that the building is able to withstand the hydraulic loading due to flooding (at the PMF).

Note: In most cases, the potential risk to life hazards categories are given on the flood information certificate for the relevant property.

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**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
FORT WALLACE, STOCKTON - ADOPTION OF AMENDMENT TO  
NEWCASTLE LEP 2012 AND NEWCASTLE DCP 2012 SECTION 6.15**

- Attachment A:** Planning Proposal - Fort Wallace
- Attachment B:** Section 6.15 - Fort Wallace, Stockton
- Attachment C.** Summary of Submissions

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**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
FORT WALLACE, STOCKTON - ADOPTION OF AMENDMENT TO  
NEWCASTLE LEP 2012 AND NEWCASTLE DCP 2012 SECTION 6.15**

**Attachment A:**      Planning Proposal - Fort Wallace



## PLANNING PROPOSAL

# Fort Wallace

Version 3.0 - Final

March 2018

For enquiries please call 4974 2881.

For more information visit:  
[www.newcastle.nsw.gov.au](http://www.newcastle.nsw.gov.au)



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## Appendices

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<b>Appendix B</b> - Ecological Assessment (Updated)
<b>Appendix C</b> - Bushfire Assessment (Updated)
<b>Appendix D</b> - Urban Design and Landscape Report (Updated)
<b>Appendix E</b> - Stormwater Report
<b>Appendix F</b> - Site Audit Statement and Report
<b>Appendix G</b> - Coastal Engineering Report (Updated)
<b>Appendix H</b> - Executive Summary - Aboriginal Cultural Heritage & Archaeological Assessment Report
<b>Appendix I</b> - Heritage Impact Statement
<b>Appendix J</b> - Transport Study
<b>Appendix K</b> - Social Impact Assessment
<b>Appendix L</b> - Servicing Report
<b>Appendix M</b> - State Agencies Submissions
<b>Appendix N</b> - Consultation Report

# Planning Proposal - Fort Wallace

## Introduction

This planning proposal has been prepared in accordance with Division 3.4 of the *Environmental Planning and Assessment Act 1979* (NSW). It explains the intended effect of a proposed local environmental plan (LEP) and sets out justification for plan making.

'A guide to preparing planning proposals' has been used to guide and inform the planning proposal. This planning proposal is for everyone. It will be used to decide whether the proposal should proceed or not.

## Summary of proposal

<b>Proposal</b>	To rezone the Fort Wallace site from SP2 Infrastructure (Defence) to R2 Low Density Residential, RE2 Private Recreation and E2 Environmental Conservation and amend controls relating to building height, lot size and heritage.
<b>Property Details</b>	338 Fullerton Street, Stockton (Lot 100 and 101 DP 1152115)
<b>Applicant Details</b>	Defence Housing Australia

## Background

Council received a request to amend Newcastle Local Environmental Plan (LEP) 2012 to enable the Fort Wallace site to be used for mixed purposes, including residential and recreational. The site was previously owned by the Department of Defence and was recently transferred to Defence Housing Australia (DHA) to provide housing for Defence members and family. The proposal will allow for approximately 100 dwellings. It is envisaged that half of the dwellings are to house Defence members and family with the remainder in private ownership. The site was considered a good option to house defence members due to proximity to Williamtown RAAF base, the Stockton commercial centre and Newcastle city centre.

The site is currently vacant and contains a number of disused defence buildings and infrastructure. Significant items include gun emplacements, observation tower, radio station, casualty station, search lights, drill hall, administration building and plotting room. These items are listed on the Commonwealth Heritage List as they reflect a component of Australia's history. The concept plan prepared for the site, proposes that the bulk of these military items form a Heritage Precinct. Options exist to adapt some of the scattered buildings for alternative uses.

The planning proposal has been informed by various strategic and technical assessments, including preparation of an Urban Design and Landscape Report. Investigations to understand the site's sensitivities and opportunities are documented in the Report. The concept plan was a result of the process. It shows the sites potential to provide housing on part of the site; the location of which has guided proposed zone boundaries and related controls. The draft DCP was prepared to implement the vision for the site and ultimately support the proposal.

The planning proposal and draft DCP was reported to the Council on 28 November 2017. Council endorsed progression of the Planning Proposal and DCP as per the required legislative process. The Department of Planning and Environment issued a Gateway Determination on 24 April 2018. A copy of the Council report and resolution, and DPE Gateway Determination can be found at Appendix A.

## Site

The proposal concerns land at 338 Fullerton Street, Stockton and is legally referred to as Lots 100 and 101 DP 1152115.

The Fort Wallace site is approximately 32 hectares in size. The Stockton Centre, a residential care facility, is located north of the site and a decommissioned wastewater treatment works adjoins the site to the south. The site runs along Fullerton Street. To the east is Stockton Beach. The Hunter River contains nationally recognised (Ramsar) wetlands. They are located west of Fullerton Street. See **Figure 1** Local context of the site.

The site is formally accessed by a single entry off Fullerton Street. There is also an emergency access track available off Fullerton Street. It is a 16-minute car trip (approximately 15km) to the RAAF base at Williamstown, 30-minute car trip or short ferry ride to the Newcastle city centre and four-minute car trip to the Stockton local centre.

There is a shared path between the Fort Wallace site and Stockton ferry terminal. The path is located on the opposite side of Fullerton Street near the estuary.

Key features of the site include:

- significant military heritage
- importance to Worimi People and local community
- undulating topography with a mix of disturbed native vegetation and introduced species
- a modified landform due to previous defence related uses.

The site is currently zoned SP2 Infrastructure for Defence purposes in the Newcastle LEP 2012. It is vacant, non-operational and inaccessible to the public. Defence ceased activity on the site in 2003. The most recent use of the site was accommodation for the Australian Navy (see **Figure 2** Air photo of the site).

Figure 1 - Local context of the site

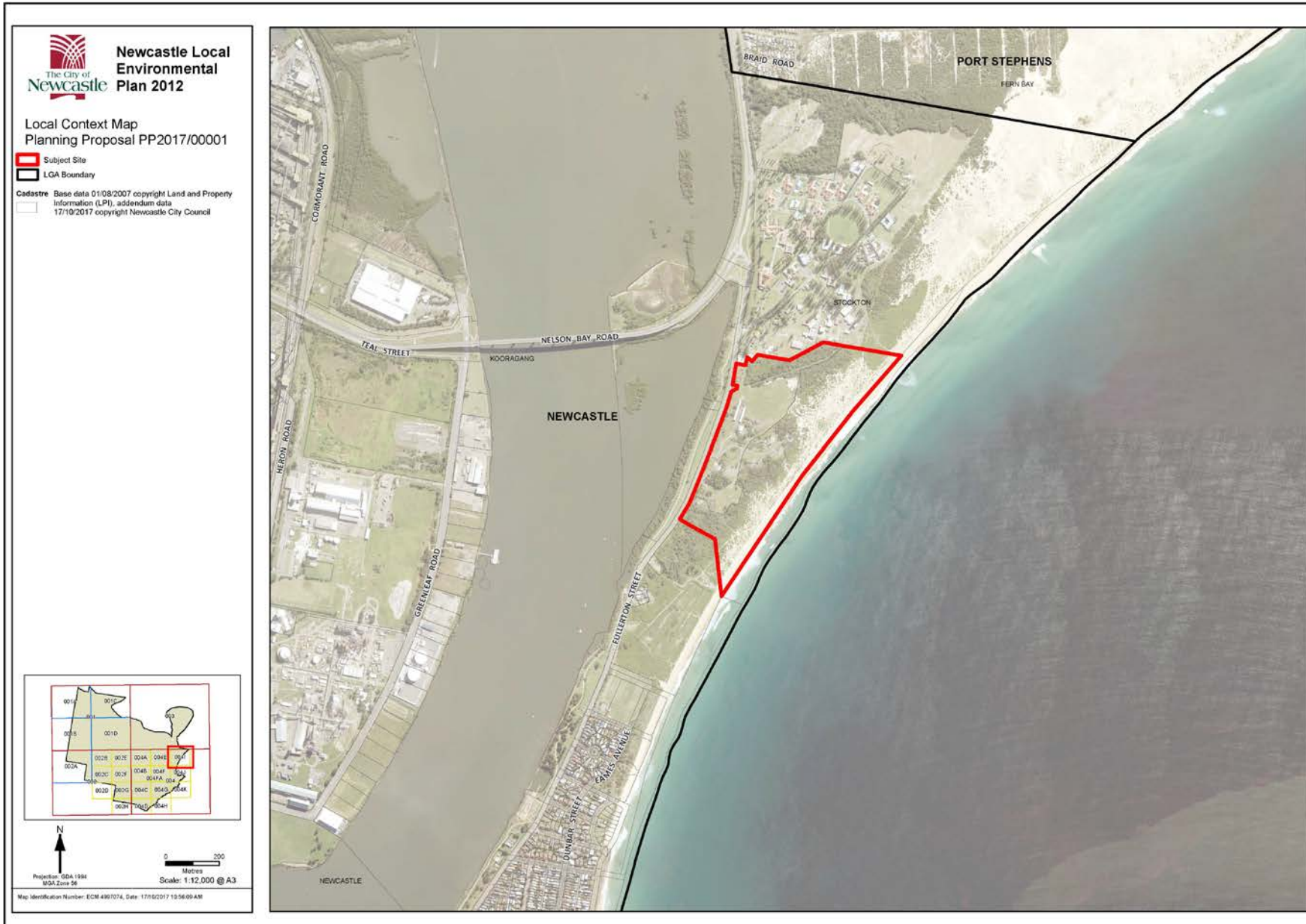
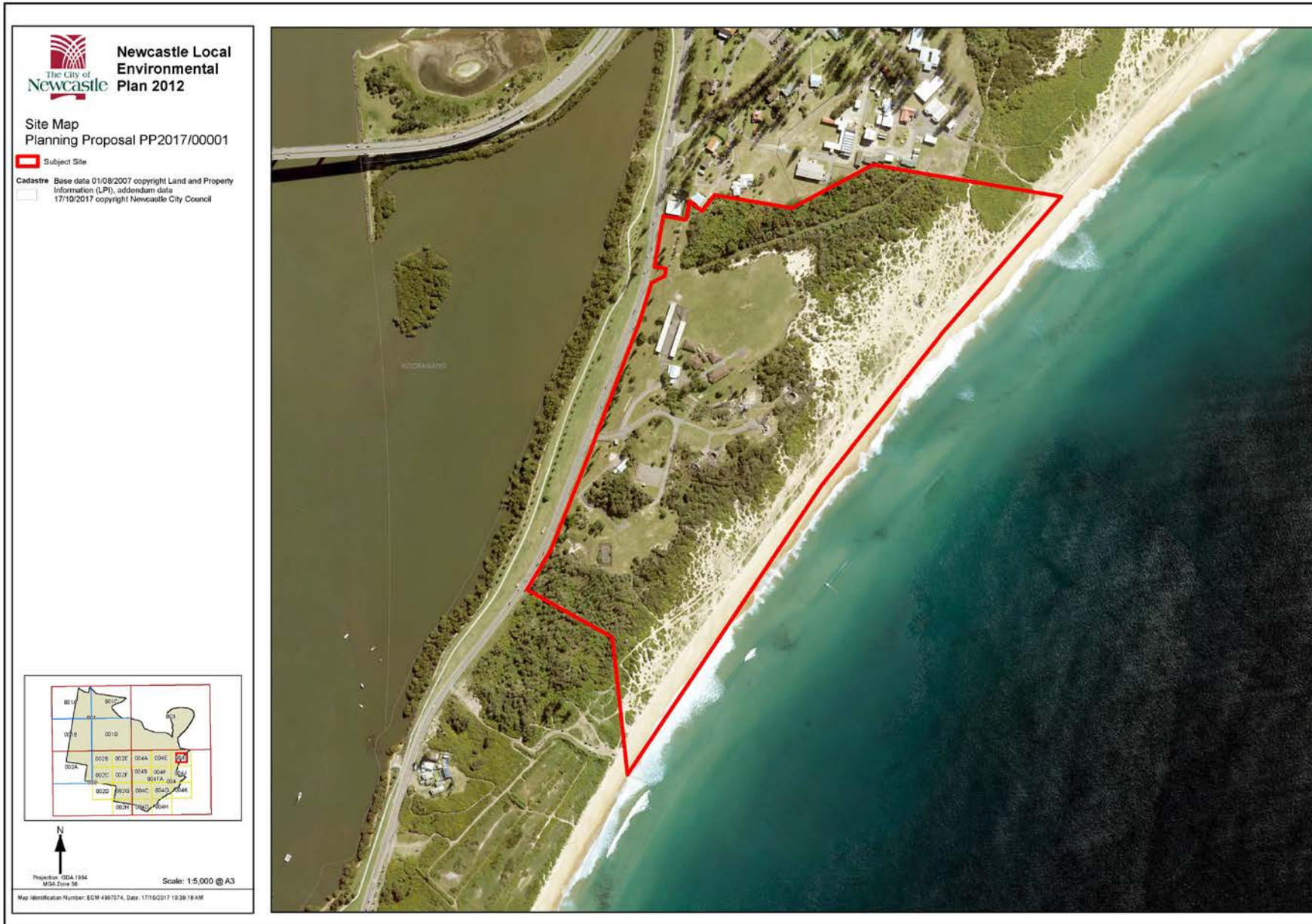


Figure 2 - Air photo of the site





## Part 1 - Objectives or intended outcomes

To amend the Newcastle LEP to allow a diversity of housing on part of the site that is cleared or disturbed due to previous defence related (or former) uses. Approximately 100 dwellings are proposed. See **Figure 3** for concept plan. The amendment will enable the remainder of the site to be used for either recreational or educational purposes, as well as protection and enhancement of the natural environment and heritage contained on the site.

## Part 2 - Explanation of provisions

The proposed outcome will be achieved by making the following amendments to the Newcastle LEP 2012:

- Rezoning the site from SP2 Infrastructure (Defence) to part R2 Low Density Residential, part RE2 Private Recreation and part E2 Environmental Conservation.
- Introducing a varied approach to heights and lot sizes\* across the site, to reflect the typologies proposed in the concept plan. Heights vary from 8.5m (approximately two storeys) for single dwellings, cluster housing and town house style development and 11m and 14m for apartments depending on the slope. A maximum height limit of 8.5m is proposed for the remainder of the site.
- Including the site as a local item and archaeological site within Schedule 5 Environmental Heritage.

Refer to **Part 4 - Mapping** for proposed maps.

**Figure 3 - Draft Concept Plan - Fort Wallace**



\* Further explanation on lot sizes: Smaller lots (such as 200sqm) to accommodate cluster housing are considered appropriate in order to create housing choice. The recommended option is to create 200sqm lots by applying clause 4.1A Exceptions to minimum lot size where the minimum lot size controls are greater. This approach is considered a means to achieve diversity. A development application would be lodged for the development and subdivision of land to create multiple lots. The other option is by applying clause 4.6 Exceptions to development standards. It is considered that sufficient justification has been provided as part of this planning proposal for smaller lot housing.

## Part 3 - Justification

### Section A - Need for the planning proposal

#### 1. Is the planning proposal a result of any strategic study or report?

The planning proposal is not a result of a strategic study or report. It is considered consistent with many aspects of the Local Planning Strategy (LPS). In 2011, census data, used to inform the LPS indicated that existing housing stock in Stockton were dominated by single dwellings (with 3+ bedrooms) and that lone person households accounted for 34% of all households. Lone person households are expected to be the fastest growing household type into 2031 and therefore highlights a mix match in housing stock to household size. Recent census data reflects the same scenario. An objective of the planning proposal is to deliver a mix of housing types (such as single dwellings, clusters, townhouses and apartments) including variety of sizes and number of bedrooms.

The planning proposal is also consistent with the following neighbourhood vision and objectives for Stockton:

#### ***Vision***

The existing beach and harbour side character and historic identity of Stockton will be protected and enhanced.

#### ***Objectives***

- Encourage development that is sympathetic to the existing character of Stockton.
- Future development considers coastal erosion processes.

The bulk and scale proposed for the overall development is considered appropriate. The site analysis process and further testing of designs/proposed controls demonstrate that the development can respond positively to the sloping topography and Stockton coastline.

The site is likely to be affected by coastal erosion by 2100. No development is proposed seaward of the 'unlikely' 2100 hazard, which is consistent with the recommendations of the OEH certified/Council adopted *Newcastle Coastal Zone Management Plan, 2018*. This portion of the coast is proposed to be included within the E2 Environmental Conservation Zone.

#### 2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

Yes, amending the Newcastle LEP 2012 is considered the best means of;

- achieving residential development and creating recreational opportunities for defence members while allowing
- further enhancement and protection of the natural environment and unique heritage at the Fort Wallace site.

## Section B - Relationship to strategic planning framework

### 3. Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?

#### Hunter Regional Plan 2036

The Hunter Regional Plan 2036 (HRP) is the NSW government's plan to guide land use planning and infrastructure priorities and decisions over the next 20 years. The plan includes an overarching vision for the Hunter Region and is supported by a series of goals, directions and actions. It also contains local government narratives.

The planning proposal is considered consistent with the HRP, particularly in relation to the following components:

#### *Vision*

“The leading regional economy in Australia with a vibrant new metropolitan city at its heart”.

Housing is required for defence members and family. The defence sector is a major employment generator for the region. The HRP recognises this. The site at Fort Wallace can accommodate additional and more diverse housing options to support defence employees, their families and others. Fort Wallace is well located; it is in proximity to the RAAF base at Williamstown, the Stockton commercial strip along Mitchell Street and Newcastle city centre.

Redevelopment of the site will allow further recreational options to support the Fort Wallace community while enhancing and better protecting the sites natural environment. The opportunity also exists to use existing infrastructure such as heritage buildings, roads and services in its redevelopment.

#### *Relevant Directions*

Direction 7: Develop advanced manufacturing, defence and aerospace hubs. This Direction highlights Defence as an important sector contributing to the economy of the hunter region. The defence sector directly relates to housing, logistics, technology, education and manufacturing industries. The Australian Government is seeking to grow the defence and aerospace industries in and around the RAAF base at Williamstown and has committed to upgrading national air defence infrastructure in the precinct.

Direction 9: Grow tourism in the region. The site holds future (potential) opportunities for visitors to learn about the sites unique and multi layered heritage or simply admire the scenic coastal views. The proposed controls aim to protect important views to heritage assets and coastline.

Direction 14: Protect and connect natural areas. The residential component is proposed on cleared or highly disturbed parts of the site, eg former accommodation for the Australian Army. The site was cleared prior to the construction of the fort for the development of a rocket brigades storage shed. The shed contained heavy rocket propulsion gear and cables used to carry life lines to ships in distress. The Ecological Assessment (Appendix B) undertaken to guide the concept plan highlights that although the site is of a high to moderate disturbed nature, it continues to provide habitat for certain fauna species, particularly bats, flying foxes and birds. The sandy dunes are also important places for migratory birds. The proposed zoning is considered the best mechanism to ensure ongoing protection. These more sensitive areas are proposed to be located within the E2 Environmental Conservation Zone. Future opportunities exist to provide better connections throughout the site.

Direction 16: Increase resilience to hazards and climate change. The HRP discusses the vulnerabilities faced by coastal communities, particularly due to coastal erosion and bushfire impacts. No development is proposed within the area likely to be impacted by coastal erosion. This is in accordance with the Newcastle Coastal Zone Management Plan 2018. The Bushfire Assessment (Appendix C) prepared to inform the concept plan and support the planning proposal indicates that bush fire risks need careful management but would not prevent a proposal to accommodate residential development on the site.

Direction 17: Create healthy built environments through good design. The Urban Design and Landscape Report (Appendix D) details the process undertaken to achieve a well-designed / good quality development. Relevant detail has been incorporated in the draft site-specific Development Control Plan (DCP).

Direction 18: Enhance access to recreational facilities and connect open space. As discussed, opportunities exist to deliver this direction. They are identified in the concept plan (and Urban Design & Landscape Report). Options to create parkland and adaptive reuse of buildings are future considerations.

Direction 19: Identify and protect the region's heritage. The HRP states that cultural heritage is important to communities as it provides tangible connections to the past. Heritage items can also attract tourism, which can contribute to local economies. There is potential to adapt certain heritage buildings /structures to support alternative uses and better capture or celebrate the sites unique indigenous heritage.

Direction 22: Promote housing diversity. Housing diversity is a key objective of the proposal.

Direction 24: Protect the economic functions of employment land. The planning proposal supports employees located at the Williamstown RAAF base.

### Greater Newcastle Metropolitan Plan 2036

The planning proposal is consistent with the goals and strategies of the Greater Newcastle Metropolitan Plan, particularly to:

- support the growing airport and aerospace and defence precinct at Williamstown
- create better buildings and great places
- consider natural hazards in forward planning and
- deliver housing close to jobs and services.

#### **4. Is the planning proposal consistent with council's local strategy or other local strategic plan?**

##### Community Strategic Plan - Newcastle 2030

The Newcastle Community Strategic Plan (CSP) reflects the community's vision for the city and is Council's guide for action. The planning proposal will assist with delivering the following long-term community aspirations:

##### *Open and Collaborative Leadership*

The planning proposal primarily aligns to the strategic direction 'Open and Collaborative Leadership'. Compliance with the LEP amendment process will assist in achieving the strategic objective which considers decision-making based on collaborative, transparent and accountable leadership and provides opportunities for genuine and representative community engagement in local decision making.

##### *Integrated and Accessible Transport*

Transport networks and services have been considered in the redevelopment of the site.

##### *Protected Environment*

The planning proposal aims to maintain, enhance and better connect natural features on the site. Environment and climate change risks and impacts are understood and managed.

##### *Vibrant, Safe and Active Public Places*

As the site redevelops there is potential for a vibrant and activated place, where culture, heritage and place is valued, shared and celebrated. Passive surveillance has been assessed and guided the concept plan / proposal.

##### *Inclusive community*

The planning proposal aims for a mixed community (50% defence members and family and 50% privately owned is envisaged). There are opportunities to create a caring and inclusive community on the Fort Wallace site. The Social Impact Assessment contains relevant recommendations.

##### *Liveable Built Environment*

An objective of the planning proposal is to maintain culture and strengthen knowledge containing history at the Fort Wallace site while providing a diversity of housing.

##### *Smart and Innovative*

The planning proposal acknowledges educational and cultural opportunities associated with the sites rich history.

##### Local Planning Strategy


The Local Planning Strategy was adopted by Council in 2015. It was guided by the CSP.

The strategy land use strategy guides future growth and development in Newcastle to 2030. The planning proposal is consistent with the strategic directions contained within the LPS, particularly as it seeks to create housing choice and protect the natural environment and heritage contained on the site.

**5. Is the planning proposal consistent with applicable State Environmental Planning Policies?**

An assessment of the planning proposal against relevant SEPPs is provided in **Table 1 - Relevant State Environmental Planning Policies**.

**Table 1 - Relevant State Environmental Planning Policies**


Relevant SEPPs	Consistency and Implications
<b>SEPP 44 (Koala Habitat Protection)</b>	The planning proposal can satisfy the requirements of the SEPP. The Ecological Assessment at Appendix B concluded that the site does not contain koala habitat. No evidence of koala habitat was found.
<b>SEPP 55 (Remediation of Land)</b>	The planning proposal can satisfy the requirements of the SEPP. A Site Audit Statement (and Report) has been prepared and provided at Appendix F. The site has been remediated to meet standards to allow a rezoning of land for housing on part of the site and recreational activities on the other. Further detail is provided in the attached Statement. Council is satisfied that the planning proposal is consistent with the requirements of the SEPP.
<b>SEPP 64 (Advertising and Signage)</b>	The planning proposal can satisfy the requirements of the SEPP.
<b>SEPP 65 (Design Quality of Residential Flat Development)</b>	The planning proposal can satisfy the requirements of the SEPP. The Urban Design and Landscape Report (Appendix D) was used to guide the draft site specific DCP. The designs and controls were informed by SEPP 65 design quality principles and <i>Apartment Design Guide</i> . Council's design review panel, (UDCG) reviewed the controls, provided advice and informed the draft DCP and planning proposal. Overall, the panel showed support for the proposal.
<b>SEPP (Building Sustainability Index: BASIX) 2004</b>	The planning proposal can meet BASIX requirements and satisfy requirements of the SEPP.
<p><b>SEPP (Coastal Management) 2018</b></p> 	<p>The planning proposal can satisfy the requirements of the SEPP. Fort Wallace is located within the coastal zone which means careful planning and management is required in redevelopment of the site. A Coastal Engineering Report was prepared to guide the concept plan and inform the planning proposal. It was updated to satisfy OEH's recommendations. It can be found at Appendix G.</p> <p>The proposed development is not within or proposing to impact coastal wetlands, environmental values or natural processes. The proposed development is landward of the Council adopted 'unlikely 2100 hazard line'.</p> <p>Due to the highly disturbed nature of the natural landscape (including significant weed invasion) an opportunity exists to improve the quality of native vegetation and minimise impacts of coastal erosion on the site.</p>

**6. Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?**


An assessment of the planning proposal against the relevant Ministerial Directions is provided in the **Table 2**.

**Table 2 - relevant Section 9.1 Directions**

Relevant Directions	Consistency and implications
<b>1. Employment and Resources</b>	
<b>1.4 Oyster Aquaculture</b>	<p>The NSW Oyster Industry Sustainable Aquaculture Strategy, 2006 identifies the proposed discharge area as a 'Priority Oyster Aquaculture Area' in the Hunter River. A Stormwater Assessment (Appendix E) was undertaken and further updated to consider potential impacts and concluded that the proposal (as outlined within the concept plan) will not directly impact the oyster aquaculture area.</p> <p>The assessment also stated that the existing developed site does not utilise appropriate treatment systems and therefore it is anticipated that suitable provision of treatment will enhance the stormwater quality discharged from the site irrespective of the redevelopment of the site.</p> <p>Since preparation of the draft planning proposal, The Department of Primary Industries (Hunter River Priority Oyster Aquaculture Area - NSW DPI) have been consulted and have informed that oysters are no longer cultivated adjacent to the Fort Wallace site. Therefore, NSW DPI has no objection to the planning proposal to amend the LEP.</p>
<b>2. Environment and Heritage</b>	
<b>2.1 Environment Protection Zones</b>	<p>The planning proposal is consistent with the aims of this Direction. Development is proposed on cleared or highly disturbed parts of the site. The E2 Environmental Conservation Zone is proposed to protect, manage and restore areas of higher ecological and / or cultural significance.</p>
<b>2.2 Coastal Management</b>	<p>The planning proposal is consistent with the aims of this Direction. The site is within the coastal zone. Detail on relevant coastal information is provided in the Coastal Engineering Assessment at Appendix G.</p> <p>One formalised access point to the beach has been included in the concept plan for walking purposes only. Detail on design and management options can be further explored in the preparation of a DA.</p>

Relevant Directions	Consistency and implications
<p><b>2.3 Heritage Conservation</b></p>	<p>The planning proposal is consistent with the aims of this Direction. The Heritage Precinct (which consists of significant defence related buildings and structures such as the observation tower and gun emplacements) are proposed to be placed within the E2 Environmental Conservation Zone. The planning proposal also recommends that the site be included as a local listing in Schedule 5 Environmental Heritage of the Newcastle LEP 2012.</p> <p>A suite of controls relating to heritage, ie an appropriate buffer and views to significant items are also included in the draft DCP to facilitate the vision for the site.</p> <p>The Heritage Impact Statement and Aboriginal Cultural Heritage and Archaeological Assessment Report (and review of these) have informed the concept plan / draft site specific DCP and planning proposal. See Appendices H and I.</p>
<p><b>3. Housing, Infrastructure and Urban Development</b></p>	
<p><b>3.1 Residential Zones</b></p>	<p>The planning proposal is consistent with the aims of this Direction. The intention of the concept plan and planning proposal is to create diverse housing forms and adaptive reuse of significant buildings and existing infrastructure such as roads, where possible. The site is not far from the Stockton commercial strip and Newcastle city centre. Smaller building footprints are proposed on land previously cleared for development or disturbed by prior land uses or activities.</p>
<p><b>3.4 Integrating Land Use and Transport</b></p>	<p>The planning proposal is consistent with the aims of this Direction. The proposal is to facilitate the delivery of housing for defence members and family. The site is considered a good distance for employees located at the Williamstown RAAF base. The planning proposal is informed by a Transport Study as provided at Appendix J. The study concludes that the site is well serviced by public transport and local roads have capacity to accommodate additional vehicles on the site, resulting from the creation of an additional 100 dwellings on the site.</p>
<p><b>4. Hazard and Risk</b></p>	
<p><b>4.1 Acid Sulfate Soils</b></p> 	<p>The planning proposal is consistent with the aims of this Direction. The site is affected by class 4 and 5 Acid Sulfate Soils. Future development must comply with Clause 6.1 Acid Sulfate Soils of the Newcastle LEP 2012.</p>



Relevant Directions	Consistency and implications
<p><b>4.4 Planning for Bushfire Protection</b></p> 	<p>The planning proposal is consistent with this Direction. The proposal has been assessed for its compliance with bushfire protection legislation and detailed in the Bushfire Assessment, provided at Appendix C. The assessment confirmed that the proposed development can achieve a BAL 29 providing recommended APZ are managed. Water and access provisions are deemed suitable for the proposed development.</p> <p>NSW Rural Fire Services support the assessment.</p>
<p><b>5. Housing, Infrastructure and Urban Development</b></p>	
<p><b>5.10 Implementation of Regional Plans</b></p>	<p>The planning proposal is consistent with the Hunter Regional Plan and Greater Newcastle Metropolitan Plan. See Section 3.</p>

## Section C - Environmental, social and economic impact

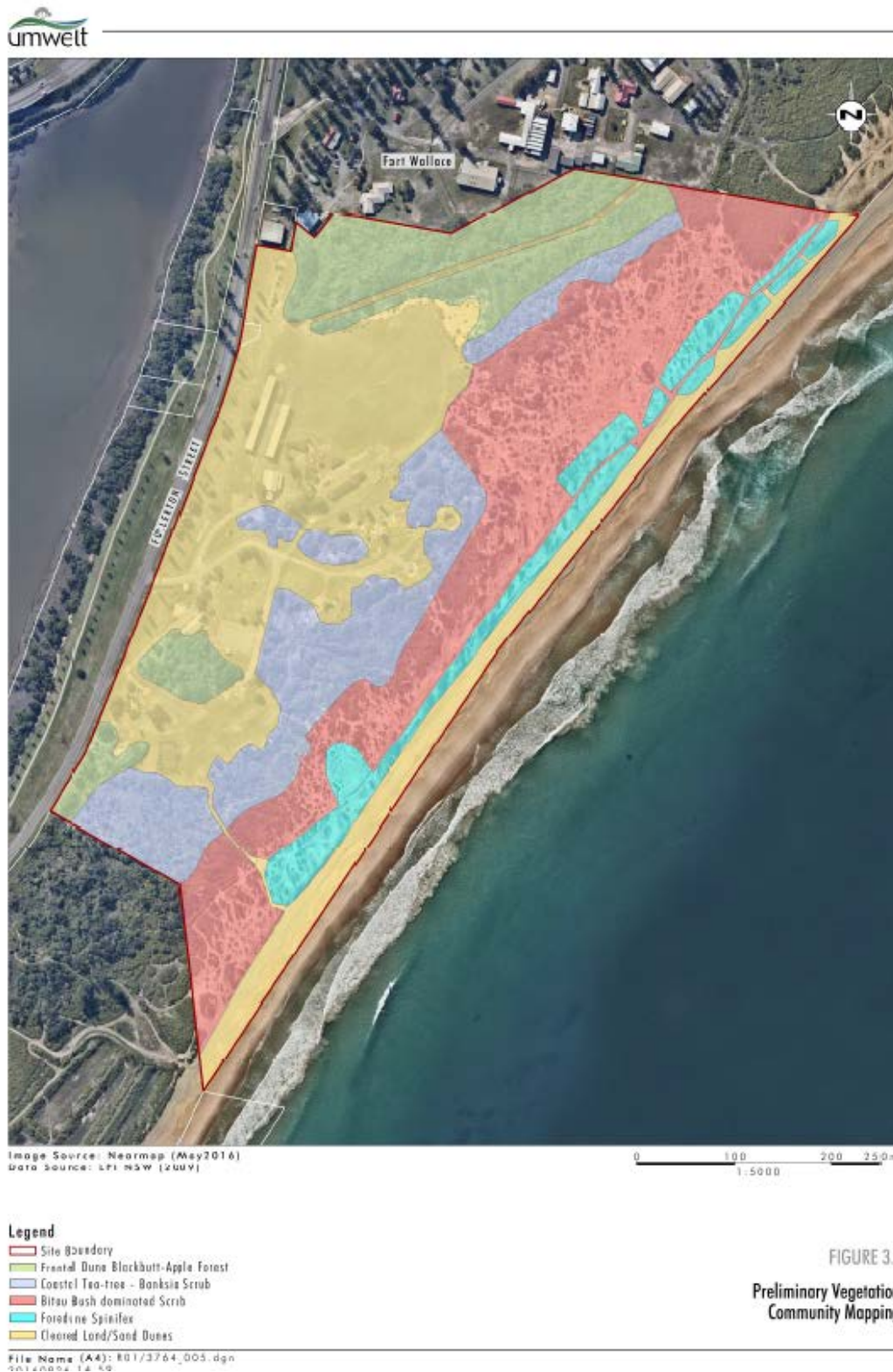
- 7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

### ***Flora and fauna***

The vision for the site is to retain and protect important vegetation that provides habitat for fauna species. An Ecological Assessment has been undertaken to consider likely impacts and inform the planning proposal. The assessment (Appendix B) included a desktop analysis, review of previous surveys and records, site surveys and recordings (and more) to identify flora and fauna communities present or likely to be present onsite.

The assessment found that the Fort Wallace site contains three native vegetation communities and one exotic vegetation community being Frontal Dune Blackbutt-Apple Forest, Coastal Tea-tree - Banksia Scrub, Bitou bush-dominated Scrub and Foredune Spinifex. See Figure 4.

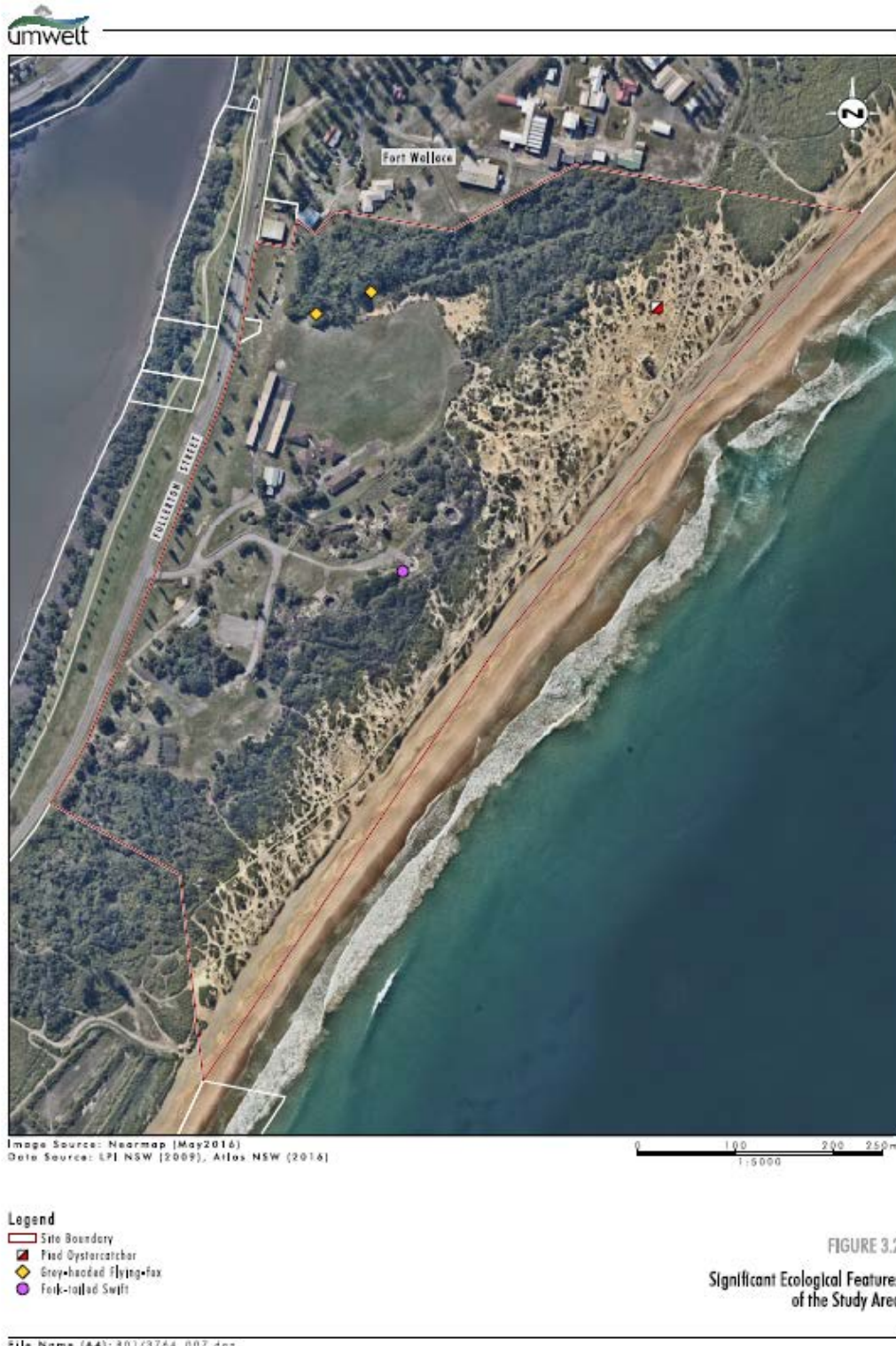
Figure 4 - Vegetation Community Mapping - Fort Wallace



A wide range of flora and fauna species have been recorded within and surrounding the Study Area. Generally, the habitats on the site are moderately to highly disturbed, as a result of previous activities undertaken on the site and weeds.

Three threatened species listed under the Threatened Species Conservation Act and/or EPBC Act have been recorded on the site being pied oystercatcher (*Haematopus longirostris*), greyheaded flying-fox (*Pteropus poliocephalus*) and east coast freetail-bat (*Mormopterus norfolkensis*). See Figure 5 for mapped threatened species.

Figure 5 - Significant Ecological Features - Fort Wallace



It is considered unlikely that redevelopment of the site for residential uses (up to 100 dwellings) would result in a significant impact on threatened species occurring or potentially occur on the site.

**8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?**

The planning proposal is not likely to result in development that will create significant adverse effects on the natural environment. A range of strategic and technical assessments have been undertaken (as discussed) to either mitigate or ensure any potential impacts associated with the planning proposal are understood and properly managed.

**Traffic and Transport Considerations**

***Local traffic and transport / Public transport***

A Transport Study (Appendix J) was prepared to assess the high-level potential of the transport network to accommodate the proposed residential development. In order to understand potential impacts approximately 100 dwellings was assumed.

Forecast traffic flows would be in the order of 156 trips AM and 172 trips PM for the Fort Wallace site. The existing flow levels on Fullerton Street coupled with the initial predictions of site traffic flows suggest the site will need an intersection configuration with an Auxiliary Left (AUL) turn lane, and a Channelised Right short turn slot to cater for predicted site movements onto and from Fullerton Street.

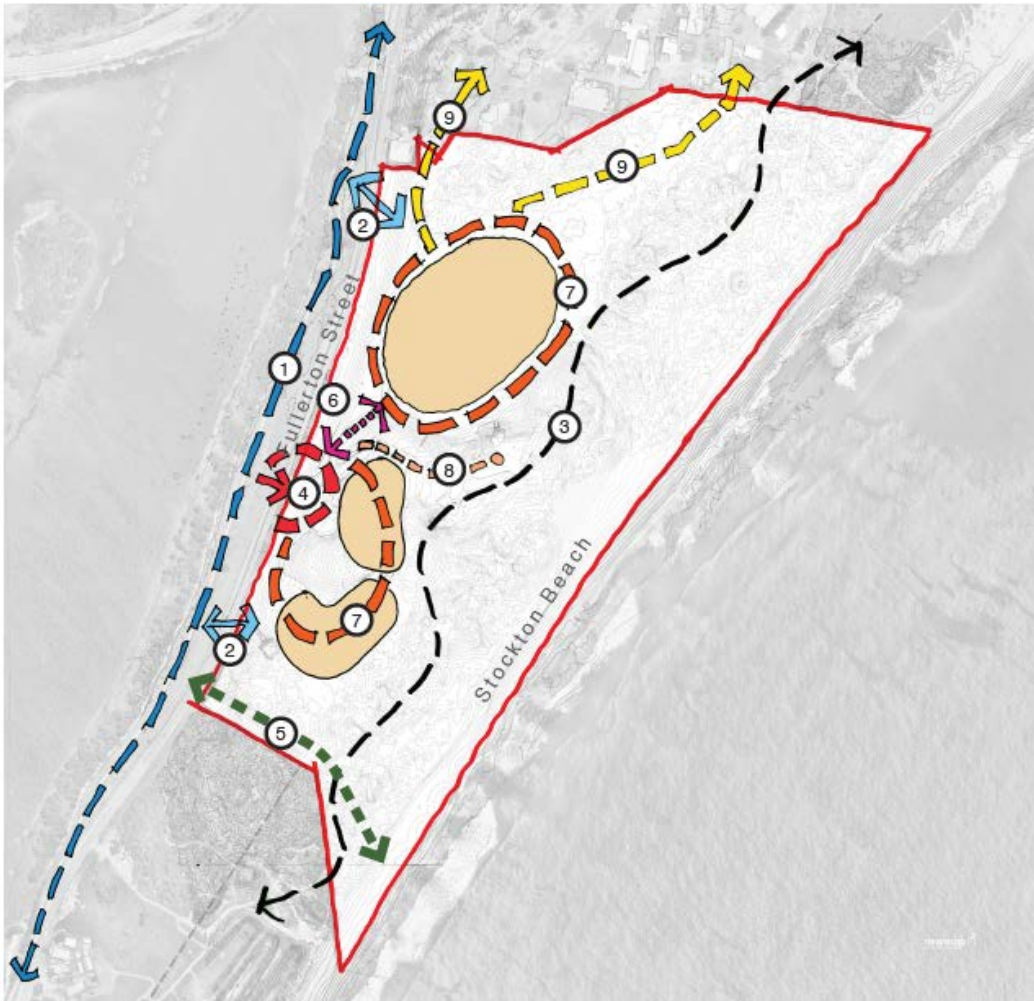
The Study concludes that the external road network is capable of absorbing levels of additional trips, while remaining at a good operational level of service.

***Cycle and pedestrian movement***

In terms of cycling and pedestrian access, a path links the site to the shopping strip and ferry terminal in Stockton.

Figure 6 identifies indicative, potential connections to neighbouring sites, which are expected to support future development.

Figure 6 - Potential indicative future connections - Fort Wallace



**Key**

- ① Existing shared path to Stockton.
- ② Potential connections to shared path network.
- ③ Potential north-south pedestrian dune connection
- ④ Existing vehicle access - opportunity to improve sense of arrival and address.
- ⑤ Public access to Stockton Beach
- ⑥ Potential to regrade access road to achieve accessible grade.
- ⑦ Potential to re-organise the internal road network into 2 loops.
- ⑧ Vehicular access to heritage assets/park.
- ⑨ Potential future links north into Stockton Centre site.

Refer to the Better Transport Futures report.

## Environmental Considerations

### Bushfire hazard

A Bushfire Assessment (Appendix C) has been prepared to understand bushfire risk with respect to the redevelopment of the site to allow for approximately 100 dwellings. It included a review of the concept plan in order to recommend appropriate bushfire risk mitigation measures. The Assessment found that the predominant bushfire hazard is located in the north, east and south boundaries of the subject site. It concluded that the concept plan and associated design principles can comply with all performance criteria's outlined for the proposed development and minimum construction requirements at detailed design stages. The proposed design also provides suitable access and water provisions for emergency management. See Figure 7 for mapped Asset Protection Zones.

The Assessment was forwarded to the Rural Fire Services (RFS) as per the conditions of the Gateway Determination. The RFS supported an updated report, which increased the APZ by two metres along the eastern portion of the site.

Figure 7 - Asset Protection Zones - Fort Wallace



### ***Acid Sulfate Soil***

The site is affected by Acid Sulfate Soils. Future development must comply with Clause 6.1 Acid Sulfate Soils of the Newcastle LEP 2012.

### ***Water quality / Stormwater management***

The Stormwater Management Plan (Appendix E) addresses stormwater quantity and quality. It addressed the impacts assumed with redevelopment of the site on the existing drainage regime, determined the stormwater discharge constraints and identified proposed stormwater device measures to adequately treat the stormwater prior to discharging to receiving waters.

Based on review of the existing site topography, stormwater discharging from the site will be conveyed to Fullerton Street and discharge across Fullerton Street and Council reserve to the Hunter River South Arm.

A MUSIC model was used to simulate pollutant source elements for the concept plan to confirm that stormwater could be adequately treated within the limits of the development. The Plan states there is adequate capacity within the site to achieve the required performance objectives for stormwater management.

### ***Flooding***

The site is not affected by flooding.

### ***Land/site contamination (SEPP55)***

A Site Audit Statement (and report) is attached. See Appendix F. There is sufficient information to conclude that contamination has been adequately investigated, remediated and validated to support the planning proposal based on the site auditors review and conclusions.

It is noted that an array of contaminants have been found on the site including buried asbestos, ordinance (eg. hand grenade, mortar shell, small arms projectiles), polycyclic aromatic hydrocarbons (PAHs) and lead. The auditor notes the possibility of unexpected finds and existing sources of contamination such as PAH contaminated pavements and asbestos infrastructure which will have to be appropriately considered and managed during future development and there will need to be an appropriate long-term management plan.

The conclusion is that the site has been adequately remediated and validated however, residual contamination issues will require further consideration and management as part of the redevelopment process.

### ***Resources (including drinking water, minerals, oysters, agricultural lands, fisheries, mining)***

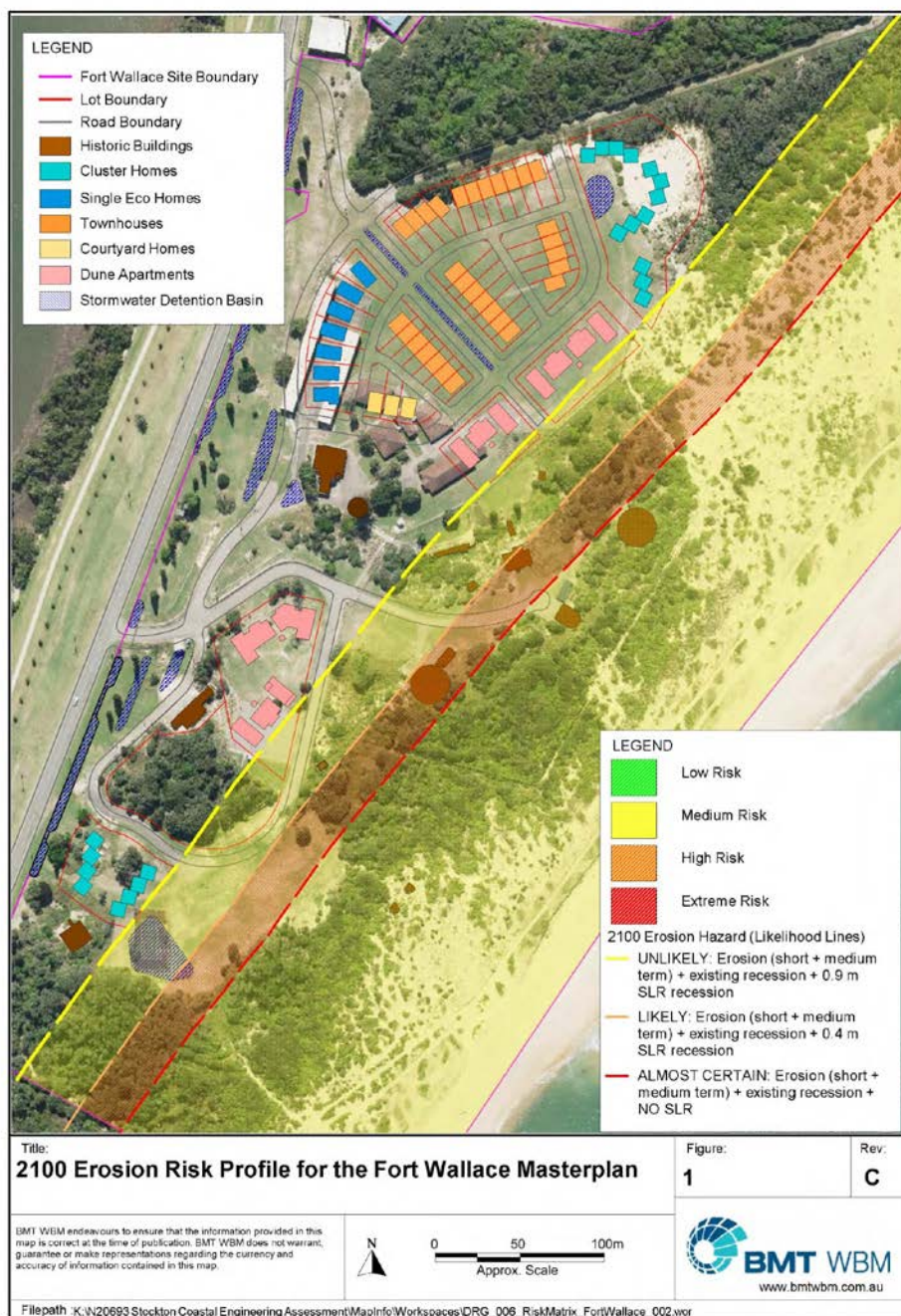
#### ***Coastal erosion***

Changes to the coastal system to the east of the Fort Wallace site have been investigated to assess the potential impacts of short and long-term erosion, sea level rise, and ongoing recession. The Coastal Engineering Assessment (Appendix G) demonstrates three scenarios for erosion by 2100 and the impact of each scenario on the Fort Wallace site, considering specifically the concept plan as an example of a potential residential development of the site.

The three scenarios are as follows: an ‘almost certain’ erosion scenario including short and medium term erosion, ongoing recession (due to the Newcastle Harbour breakwaters), but excluding the impacts of sea level rise; a ‘likely’ erosion scenario including short and medium term erosion, ongoing recession, and future recession due to sea level rise of 0.4 m by 2100 (equivalent to the current rate of sea level rise); and an ‘unlikely’ erosion scenario including short and medium term erosion, ongoing recession, and future recession due to sea level rise of 0.9 m by 2100 (equivalent to highest emission scenario along which we are tracking). The ‘unlikely’ scenario is the typical conservative estimate used for planning purposes in NSW. See hazard scenarios mapped in **Figure 8**.

In accordance with the Newcastle Coastal Zone Management Plan 2018, the residential development is proposed to be located landward of the 2100 ‘unlikely’ hazard line. The Assessment supported the proposed rezoning on terms of coastal management.

**Figure 8 - Coastal erosion - Fort Wallace**





## Urban Design Considerations

The Urban Design and Landscape Report (Appendix D) has informed the planning proposal and supporting draft site specific DCP section.

The vision is to create a new place to live without compromising the site's unique heritage and coastal character. The following planning and design principles underpin future development:

1. Touch lightly on the land.
2. Embrace the coastal ecology.
3. Celebrate history and cultural heritage.
4. Utilise interesting architectural forms.

The concept plan has been developed to incorporate best practice planning and design principles, which are reflected in the site specific DCP.

The Urban Design Consultative Group (UDCG) reviewed all relevant documentation and:

- Support a mixture of development densities and typologies for the site but suggested that apartments are restricted to a maximum of three habitable floors.
- Development is massed in a stepped formation rather than long uniform roof forms.
- Varied heights, not exceeding 14m.
- Further consideration in respect to possible building design, given high bushfire requirements. This may limit material selection and impact landscape outcomes given need for APZs.
- Consultation with local Worimi Aboriginal representatives is recommended in respect to procedure for archaeological finds and use of interpretative information in relation to indigenous heritage that could be displayed for visitors.
- The group also raised concerns around lack of areas for recreational activities such as "kicking a ball" or other play and inclusion of a small convenience shop as part of the proposal.

## Response

Council engaged heritage consultants to review all heritage documentation and process to date. As part of the review, a workshop with Registered Aboriginal Parties (RAPs) took place. RAPs advised that interpretation strategies be developed in consultation with RAPs and that signage obtain general information regarding the nature of the study area with the possibility of interpretation signage in both English and native Worimi language.

In terms of recreational activities, the proposal will allow for these. A shop is not proposed however zoning does not prohibit it. The preferred location for a retail offering is under investigation in the development of a land use strategy for the area.

As a result, the following changes were reflected in an updated concept plan and proposal documentation:

- Reducing one of the apartment blocks to 11m near a highly sensitive part of the site and removal of four dwellings in proximity to an area of higher sensitivity.
- The creation of a heritage buffer zone.
- Mapping views to important heritage items.

## **Social and Cultural Considerations**

### ***Heritage impacts - Military related***

A Heritage Impact Statement (Appendix I) was prepared to assess the likely heritage impacts of the planning proposal on the site's European heritage. A survey of heritage items and their condition has been undertaken and each item has been mapped and categorised. Previous studies and relevant documents such as the CMP and Heritage Management Strategy for the site have been considered.

Fort Wallace contains European heritage significance due to its former defence history. The structures remain on the site. Fort Wallace was the third fort constructed in Newcastle. It was built in 1912 and contains a rare example of three consecutive defence phases on the one site.

The Heritage Division at OEH have reviewed the planning proposal and raise no objections in terms of built heritage.

### ***Aboriginal cultural heritage and archaeology***

An Aboriginal Cultural Heritage & Archaeological Assessment has been prepared in consultation with the Registered Aboriginal Parties (RAPs) to inform the proposal. A summary of the Assessment can be found at Appendix H. The process was reviewed by an independent heritage consultant. The RAPs were also involved in Council's and OEH's review, and minor amendments were made where necessary to the concept plan to better protect and manage areas of higher sensitivity. A number of recommendations have also been included in updated documentation.

## **9. Has the planning proposal adequately addressed any social and economic effects?**

The planning proposal is intended to facilitate redevelopment of the site to primarily allow for residential and recreational purposes.

The planning proposal can deliver social benefits to the Fort Wallace community. The proposal is based on principles for sustainable development to ensure that built form delivers high levels of amenity for future residents. Redevelopment of the site would result in approximately 100 dwellings of different sizes and typologies, catering for a diverse range of households.

Approximately 50% are proposed for defence members and families and will be managed by DHA. DHA provides subsidised housing for defence members and their families, generally focusing on defence personnel with dependants (with single defence personnel often renting privately, which also receive some subsidy). This model ensures that appropriate and affordable housing is supplied in proximity to the work place. The model also seeks to integrate private and defence housing in a socially and financially sustainable development.

Residential development of the site may also increase demand for local retail and commercial uses which in turn may better support the feasibility of a wider range of local businesses.

## Social and cultural impacts

A Social Impact Assessment (SIA) has been prepared to support the planning proposal. See (Appendix K). It has been prepared in accordance with the City of Newcastle's *Social Impact Assessment Policy, 1999* and discusses social considerations for the future Fort Wallace community, and broader. Local social and community infrastructure (depicting the current situation) is mapped in Figures 9 and 10.

The Urban Design and Landscape Report considered options for adaptive reuse of appropriate heritage buildings and better use of open spaces. There are potential options in the future to accommodate a café, kiosk, community facility, viewing platform and park on the site. It is anticipated that the park will emphasise principles of nature play through selection of play facilities and materials. An active sports lawn and playground are proposed to be integrated within redevelopment of the site. The proposed zoning allows for a variety of supporting uses. There is an opportunity to appreciate and better understand the site's unique military and cultural heritage.

The SIA has not identified any social considerations that would preclude a residential development to accommodate approximately 270 residents and provide for renewal of the currently underutilised site. Social support (facilities, services and programs) would be required to support inclusive, growing and diverse community. See table below, for a summary of social impacts. It is anticipated that any identified potential impacts can be addressed, and further considered in the preparation of a draft strategy for the area.

### Social impact options for consideration - Fort Wallace

Area of Change	Proposed mitigation or enhancement measure
<b>Social infrastructure</b>	<ul style="list-style-type: none"> <li>Short term increases to Stockton Library hours and increased frequency of Port Stephens mobile library service</li> <li>New multipurpose facility to meet diverse community needs (community/youth/cultural/ seniors, library)</li> <li>Port Stephens Council to facilitate private sector delivery of preschool and OOSH services in the local area, and explore options for sports courts and fields in Fern Bay</li> <li>Regional Councils liaise with Department of Education to determine appropriate school catchments for Fort Wallace</li> </ul>
<b>Access and mobility</b>	<p>Future site planning include pedestrian access to the Stockton Centre bus stop and pedestrian crossing</p> <ul style="list-style-type: none"> <li>Regional Councils consider pedestrian and cycle crossing options for Fullerton Road and/or shared pathway east of Fullerton Road</li> <li>Any site developer ensure adequate mobile phone reception throughout the site</li> </ul>
<b>Community cohesion and connectedness</b>	<p>Regional Councils consider a multipurpose community centre</p> <p>A community development and welcome program be pursued by any site developer</p> <ul style="list-style-type: none"> <li>DHA explore options for heritage reuse buildings to operate as Mens Sheds</li> </ul>
<b>Health and wellbeing</b>	<p>Active travel promotion be a component of a Community Development and Welcome program for any new development at Fort Wallace</p>
Area of Change	Proposed mitigation or enhancement measure
<b>Crime and safety</b>	<p>Undertake a CPTED assessment for any future master plan</p> <p>Implement Community Development and Welcome Plan to address existing crime issues and increase passive surveillance</p>

Figure 9 - Social Infrastructure - Fort Wallace

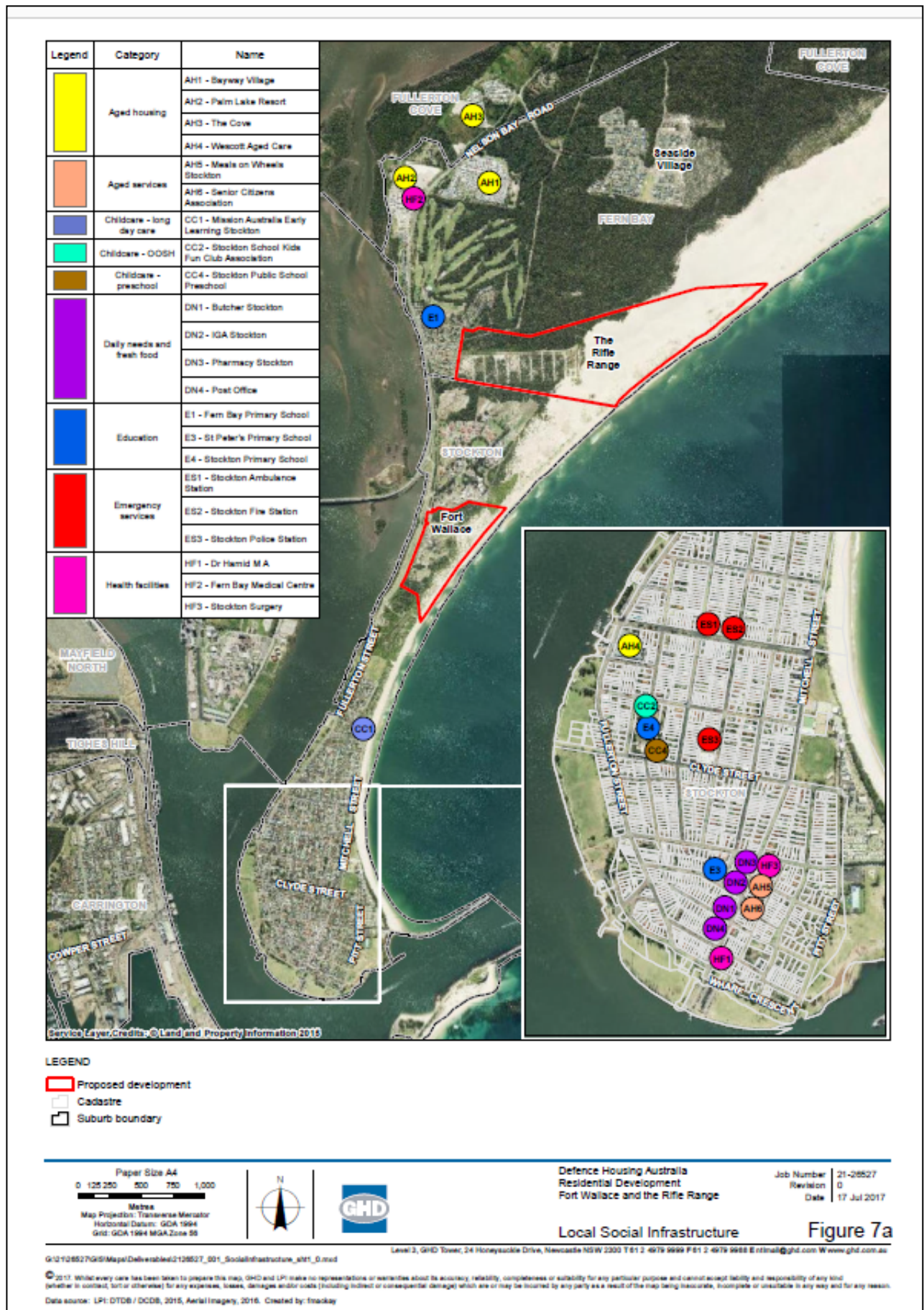
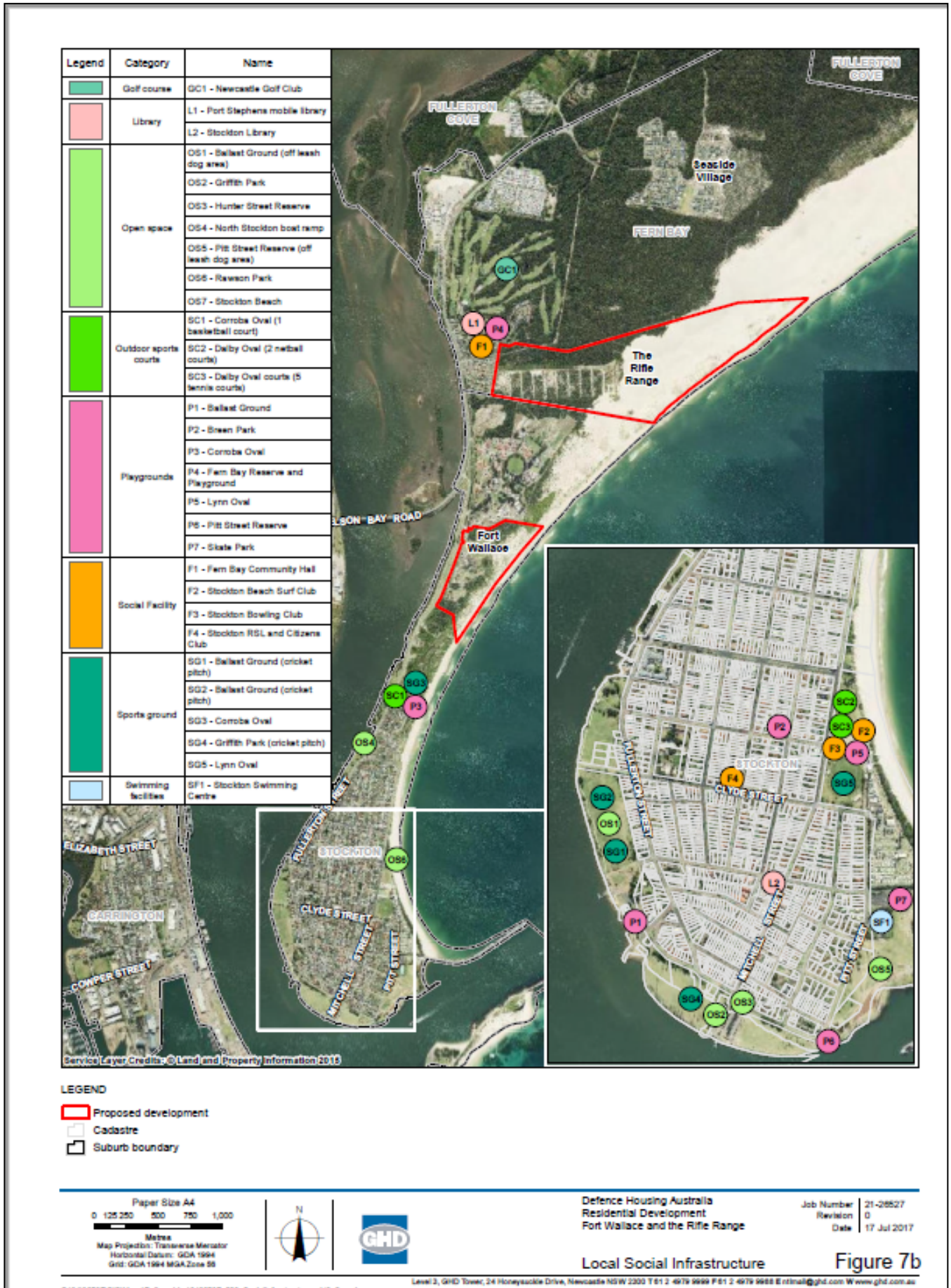


Figure 10 - Social Infrastructure - Fort Wallace



## Section D - State and Commonwealth interests

### 10. Is there adequate public infrastructure for the planning proposal?

An assessment of the capacity of key services has been undertaken to inform the proposal. An assessment of services considers portable water supply, sewer, electricity, telecommunications and gas. The report has been provided in Appendix L. It concludes that residential development on a portion of the site would be adequately serviced by surrounding infrastructure and that there are no constraints to the proposal due to the provision of services. Further assessment and potential upgrades to the Stockton 4 Waste Water Pump Station are likely to be required at the subdivision and development stages.

### 11. What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?

The following Public Authorities have been consulted in accordance with the Gateway determination:

#### **Department of Primary Industries (Hunter River Priority Oyster Aquaculture Area) (DPI)**

NSW DPI stated that due to recurrent pollution events in this area, oysters are no longer cultivated adjacent to the proposed development site. The future of Priority Oyster Aquaculture Areas in this area will be considered by government and industry in a review. NSW DPI has no objection to the proposed amendment to the Newcastle LEP 20127.

#### **Office of Environment and Heritage (OEH) - coastal management and heritage matters**

*The Heritage Division* - The Heritage Division reviewed the Heritage Impact Statement and indicated support for the Planning Proposal. Retaining an appropriate buffer and important views to heritage items is supported, as shown the draft DCP.

*Regional Operations Division* -

#### Aboriginal cultural heritage

The area of higher cultural sensitivity is not registered on the Aboriginal Heritage Information Management System.

Response: The applicant has been advised that a submission to OEH is required.

#### Coastal Management

1. OEH recommends that the Coastal Hazard Assessment for the site consider effects of beach rotation and wind driven sand loss. The assessment is to consider potential impacts of any management options likely to increase risk of coastal hazards on adjacent land at Stockton, to satisfy Clause 15 of the SEPP (Coastal Management) 2018.

Responses:

Clause 15 of the Coastal Management SEPP states that “development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.”

As identified in the Coastal Engineering Assessment (WBM BMT 2019), the development is proposed landward of the 2100 ‘unlikely’ erosion hazard line outlined in the Newcastle Coastal Hazards Study (BMT WBM, 2014), which was prepared as a technical document for the City of Newcastle's Coastal Zone Management Plan 2018. The development is considered to not likely

cause increased risk of coastal hazards on that land or other land within the next 80 years. The siting of the development allows embayment wide processes and mitigation responses to be unimpeded by the proposed development over the longer term.

### *Beach Rotation*

The effects of beach rotation have been considered in the Coastal Engineering Assessment prepared by BMT WBM (and updated in 2019). See Attachment G for the report. The Coastal Engineering Assessment utilised modelling provided by the Stockton Beach Coastal Process Study (DHI 2006). In this study, beach rotation was an element of the calculation. These calculations have informed the likely scenarios contained within the Assessment. Refer to Sections 3.2.1 and 3.2.2.1 of the Assessment for more detail.

### *Aeolian Sand Losses*

An assessment of potential aeolian sand losses and dune migration risks was undertaken. Findings contained within the Assessment conclude that the dunes fronting the Fort Wallace site (landward of the area subject to waves and high-water levels) have been very stable over time, and therefore, no significant aeolian losses or dune migration risks are present on the site. Sand drift mitigation measures to reduce the potential for nuisance sand drift to occur on the development in the future have been outlined in the Assessment. Mitigation measures include rehabilitation and ongoing maintenance of the dunes. Refer to Section 3.5 of the Assessment for more detail (BMT WBM 2019).

### *Holistic Assessment of Stockton Embayment*

The Assessment considers the broader Stockton Embayment. The coastal processes and setting discussion (Chapter 2 of the report) describes the area and the regional coastal processes that are subsequently having an impact on the Fort Wallace site. The coastal hazards calculated and assessed for Fort Wallace were derived from embayment wide LGA scale assessments (Section 3.2). The risk assessment is then conducted using this information as a base, and therefore not in isolation of embayment wide processes. Furthermore, the assessment for the site addresses variables in Section 3.2.4.

Furthermore, The City of Newcastle are developing a Coastal Management Program under the *Coastal Management Act 2016*. The approach to risk mitigation recommended for this site provides an outcome that does not limit the actions that may be chosen to mitigate coastal risks in the wider Stockton embayment.

2. OEH recommends that the planning proposal addresses risks from coastal hazards beyond 2100 to satisfy mandatory requirements of the Coastal Management Manual 2018.

Response: The Coastal Management Manual 2018 states that “if a Coastal Zone Management Plan was certified under the *Coastal Protection Act 1979*, the savings and transitional arrangements in Schedule 3 of the *Coastal Management Act 2016* will continue to have effect until 31 December 2021, unless replaced by a Coastal Management Program prepared and adopted under the *Coastal Management Act 2016*.”

Council does not yet have a Coastal Management Program, as this requirement was only introduced by the Coastal Management Manual in April 2018. The Coastal Engineering Assessment (BMT WBM 2019) prepared to guide the planning proposal was developed in accordance with the requirements of the Newcastle Coastal Zone Management Plan 2018. The Management Plan states that all “new subdivisions or greenfield development are to be located landward of coastal hazards 2100 unlikely line”. The Management Plan was certified by the Minister for the Environment in August 2018. Hence the proposed design life (to 2100) is considered acceptable.

However, in response to OEH’s submission, the Assessment was further updated (see Section 3.2.4) to further consider alternative hazard outcomes to the proposed development, variables

in the hazard assessment, and risks beyond 2100 and / or that eventuate earlier than calculated erosion recession extents for 2100. It should be noted that the site is not a greenfield development and contains buildings formerly used for residential accommodation to the Army.

3. OEH recommends that the planning proposal consider mitigating measures or engineering design standards for structures that may fall within a future zone of reduced load bearing capacity.

Response:

The Assessment outlines an approach for mitigation measures to address the reduced foundation capacity (dune instability) hazard to proposed residential developments on the site.

The Assessment recommends that future development consider the expected lifespan of the structure and require foundation piles to mitigate the foundation capacity risk as appropriate. For example, structures with an expected lifespan of 40-50 years sited landward of the 'unlikely' erosion hazard would not be expected to be subject to reduced foundation capacity risks over this lifespan, and so, foundation piles would not be required.

4. OEH recommends that the planning proposal investigate and address potential impacts on adjacent coastal wetlands to satisfy the mandatory requirements of Clause 11 of the State Environment Planning Policy (Coastal Management) 2018. The site is located within a mapped Proximity Area for Coastal Wetlands.

Response: Further information has been provided by the applicant's consultants, ADW Johnson and BMT WBM, in response to OEH's submission. A response has been included at Appendix M (and part of Appendix G – the Coastal Engineering Assessment). The Fort Wallace site falls within the Proximity Area for Coastal Wetlands. The mapped area applies to a narrow section of the site, which is primarily proposed for environmental purposes (E2 Environmental Conservation).

The narrow fringing wetland to which the mapping relates is separated from the site by Fullerton Street. The site falls towards Fullerton Street, and storm water drainage currently discharges from the street to a Council reserve before entering the Hunter River. Therefore, Council must be satisfied prior to issue of development consent that the development will not have significantly impacts on the adjacent coastal wetlands.

The Stormwater Management Plan (November 2018) addresses stormwater quantity and quality from the site and impacts on surrounding areas. The report outlined that there is sufficient available land within the site to meet Council's water quality targets as described in Section 7.06 of Newcastle Development Control Plan 2012. As part of the assessment, no modelling of the pre-developed scenario was undertaken to check the effect on water quality. Modelling has since been undertaken (see Appendix M for detail) and the results show that a net positive beneficial effect on the water quality discharging from the site can be achieved and therefore the quality of the stormwater from the site can be managed to not significantly impact the adjacent coastal wetland. It is concluded that the future DA and assessments will address and detail the specific collection, control and conveyance of stormwater to demonstrate this, and will also address as necessary the siting and management of any discharge works (ADW Johnson 2018).

The Coastal Engineering Assessment has also considered this recommendation and concluded that the proposed development shall not significantly impact upon the adjacent wetland, noting the proposed single homes and roads are located on an already developed area.



## Biodiversity

OEH recommends that further survey, using call recognition and call playback, is undertaken for the Mahony's Toadlet, *Uperoleia mahonyi*, when there has been more substantial rain.

*Note: A review of the Ecological Assessment was undertaken by OEH. This was not required as part of the Gateway Determination but a service offered by the agency and undertaken as per section 3.25 of the EP&A Act 1979. The Mahony's Toadlet is an endangered frog which was listed after the original Ecological Assessment had been prepared. The Assessment was updated as per OEH's advice.*

Response: The Ecological Assessment was updated in response to OEH's recommendation to assess whether there was potential for the Mahony's toadlet to occur on this site. The updated report states that, "in relation to Mahony's toadlet (*Uperoleia mahonyi*), the habitat associated with the species is described as coastal swamps on white sand, with potential habitat occurring as ditches, dams and swales (both natural and man-made) (Clulow et al. 2016). These types of habitats were not present within the Study Area, however survey effort during call playback and spotlight surveys focussed on lower lying areas with a sandy substrate that could experience ephemeral inundation with rainfall. The weather conditions during the survey were suitable for detecting Mahony's toadlet as the Study Area recorded approximately 3 mm of rain during the three days preceding the survey. Mahony's toadlet was not recorded during targeted nocturnal call playback or spotlighting surveys conducted at the Study Area (Umwelt 2018).

Mahony's toadlet has a highly restricted distribution, occurring in a relatively small area of eastern coastal NSW throughout Port Stephens, Myall Lakes and the northern Central Coast sand beds. This restricted distribution is largely due to the species' specialist habitat requirements in the form of water bodies in heath or wallum habitats that occur on a substrate of leached (often white) sand. The closest recorded populations of Mahony's toadlet to the Study Area are at Tomago and Williamtown; approximately 14 km north-east of the Study Area. It is considered that no suitable habitat occurs within the Study Area for the species and it is unlikely to occur" (Umwelt 2018).

Further investigation has since been undertaken. On 19 December 2018, two experienced ecologists conducted nocturnal call playback and spotlighting surveys for Mahony's toadlet within potential habitat at the Fort Wallace site. The site received approximately 16mm of rain (BOM 2018) during the five days preceding the survey and a large storm front moved past over the site approximately two hours prior to the survey, producing approximately 17mm of additional rainfall (BOM 2018). This amount of rainfall is expected to be enough to stimulate frog activity, which was the case in a nearby area where four ornate burrowing frogs (*Platyplectum ornatum*) were observed and one green tree frog (*Litoria caerulea*) was heard calling approximately 1 hour before surveys were undertaken at the Fort Wallace site. Despite the large amount of rainfall before the survey, the lower lying areas of the study area with a sandy substrate did not experience any form of inundation as a result of the rainfall. Mahony's toadlet is associated with coastal swamps on white sand, with potential habitat occurring as ditches, dams and swales (both natural and man-made) (Clulow et al. 2016). These types of habitats are not present within the study area, even after heavy rainfall. Mahony's toadlet or any other amphibian species were not recorded during these surveys.

Based on the results of the call playback and spotlighting survey and the condition of the habitats within the study area, it is unlikely that the Fort Wallace site provides any suitable habitat for the Mahony's toadlet and it is unlikely that this species occurs within the study area. (Umwelt 2018).

The following matters were previously raised by OEH and have been addressed:

1. OEH recommended that the area proposed for an Environmental Management zone (E3 zone) is changed to an Environmental Conservation zone (E2 zone).

Response: This change has been reflected in an updated planning proposal.

2. OEH recommended that Council assess the need to provide offsets at the development application stage.

Response: The applicant has been advised and necessary offsets are to be considered in preparation of the DA.

3. OEH recommended that access to the beach is restricted and that Council consider whether pet ownership should be controlled within the development to reduce the risk of predation to shorebirds at Fort Wallace and the nearby Stockton Sand spit.

Response: The Ecological Assessment Report (page 30) outlines that dog and cat ownership policies are proposed to be included as a measure to minimise potential impacts on flora and fauna. The draft DCP includes a principle in support of this approach.

The concept plan, contained within the draft DCP indicates one point of access to the beach. A walking trail is proposed; it will satisfy the Coastal Management SEPP and relevant direction (2.2). Limiting and formalising once access point for walking purposes is proposed to manage any potential negative impacts. Further detail will be explored closer to consideration of the DA.

#### Aboriginal cultural heritage

1. There is an area of higher cultural sensitivity. It is to be appropriately identified, described and assessed in accordance with OEH requirements.

Response: The ACH&AA Report has been updated. OEH have indicated that the matter above has been addressed. The planning proposal has been updated accordingly.

2. The proposed zoning of the culturally significant area/s should be placed in an E2 zone.

Response: The planning proposal has been updated and areas of higher sensitivity are proposed to be included in an E2 zone.

3. The proximity of the proposed Low Density Residential Zone (R2) to the area of higher cultural sensitivity may require review once the area of higher sensitivity is identified, described and assessed in accordance with OEH requirements.

Response: The concept plan and planning proposal has been reviewed upon receipt of an updated Report. OEH have indicated that the matter above has been addressed.

4. Council should assess whether the provisions of the *Heritage Act 1977* are relevant to Aboriginal Cultural Heritage.

Response: The entire site is proposed to be included as a local archaeological site. The name and inventory will refer to the sites unique Aboriginal culture and heritage. Special built items and landscape features are also proposed to be items of local heritage significance. It is recommended that an updated CMP be prepared that captures both military heritage and Aboriginal Cultural heritage and archaeology, and that part of the site be considered for a state heritage nomination or perhaps an Aboriginal place of significance.

5. OEH recommends further consideration of an appropriate buffer around the area of higher cultural sensitivity. Again, this depends on review of the updated report, to appropriately identified, described and assessed in accordance with OEH requirements.

Response: The ACH&AA Report has been updated. OEH have indicated that the matter above has been addressed.

6. OEH have advised that separate AHIPs for each stage of development are required.

Response: The applicant has been advised of this. OEH have indicated that the matter above has been addressed.

Note. Please be aware that due to the sensitivity around information relating to site specific Aboriginal cultural heritage and archaeology, only a summary of the Report and a condensed submission from OEH is provided for public viewing.

#### *Worimi LALC*

Worimi LALC informed the Aboriginal Cultural Heritage & Archaeological Assessment and were involved in a review of the proposal. Please see submission attached.

#### *NSW Rural Fire Service*

A review of APZ's was undertaken, and an updated Bushfire Assessment is supported by FRS which reflects a 15m (not 13m) APZ for vegetation classification of Tall Heath with a downslope of 0-5 degrees. The planning proposal reflects this change.

### **Conclusion**

All submissions can be found at Appendix M. Upon a review of submissions received, The City of Newcastle's Urban Planning Team are satisfied that the proposal can progress.

## **Part 4 - Mapping**

The planning proposal seeks to amend the following maps within Newcastle LEP 2012:

- Land Zoning Map
- Height of Buildings Map
- Minimum Lot Size Map
- Heritage Map

The Matrix below indicates (with an "X"), which map sheets (of Newcastle LEP 2012) are to be amended as a result of this planning proposal:

	LZN	HOB	LSZ	HER
0041	X	X	X	X

Map Codes:

LZN	=	Land Zoning Map
HOB	=	Height of Buildings Map
LSZ	=	Lot Size Map
HER	=	Heritage Map

The following maps illustrate the proposed amendments to the Newcastle LEP 2012 maps:

- Figure 11: Existing Land Zoning Map
- Figure 12: Proposed Land Zoning Map
- Figure 13: Existing Max Height of Buildings Map
- Figure 14: Proposed Max Height of Buildings Map
- Figure 15: Existing Min Lot Size Map
- Figure 16: Proposed Min Lot Size Map
- Figure 17: Existing Heritage Map
- Figure 18: Proposed Heritage Map

Figure 11 - Existing Land Zoning Map

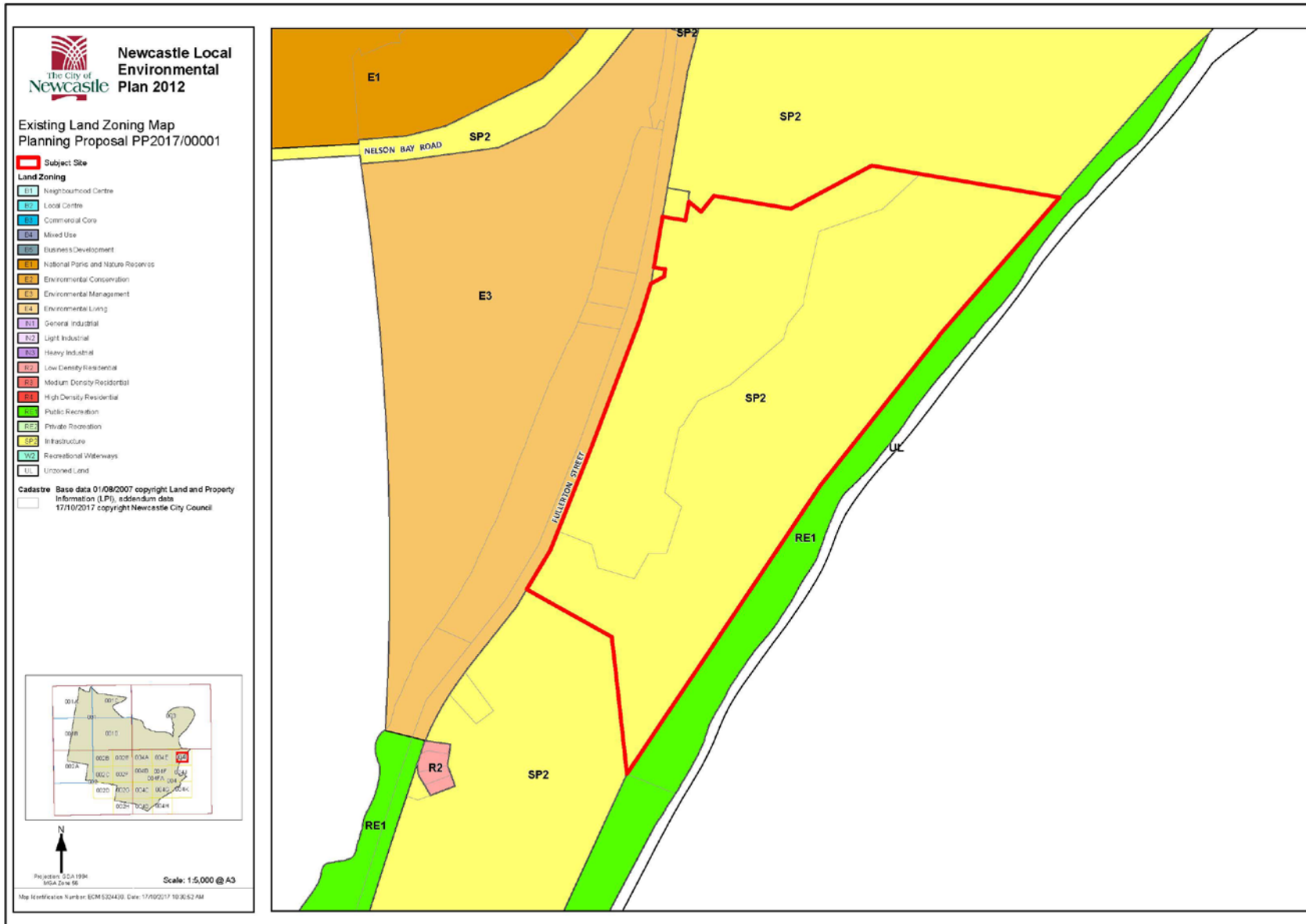


Figure 12 - Proposed Land Zoning Map

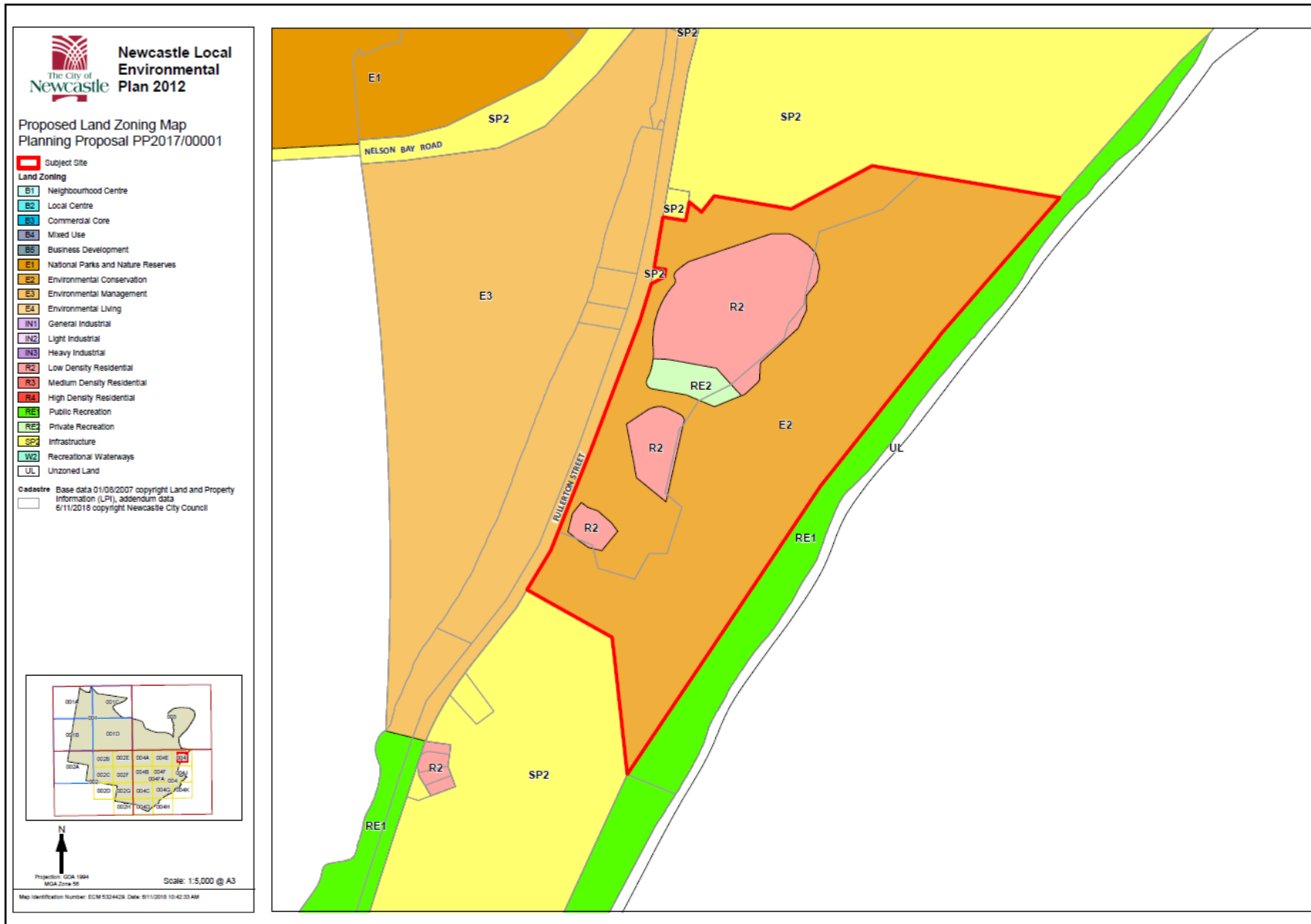


Figure 13 - Existing Max Height of Buildings Map

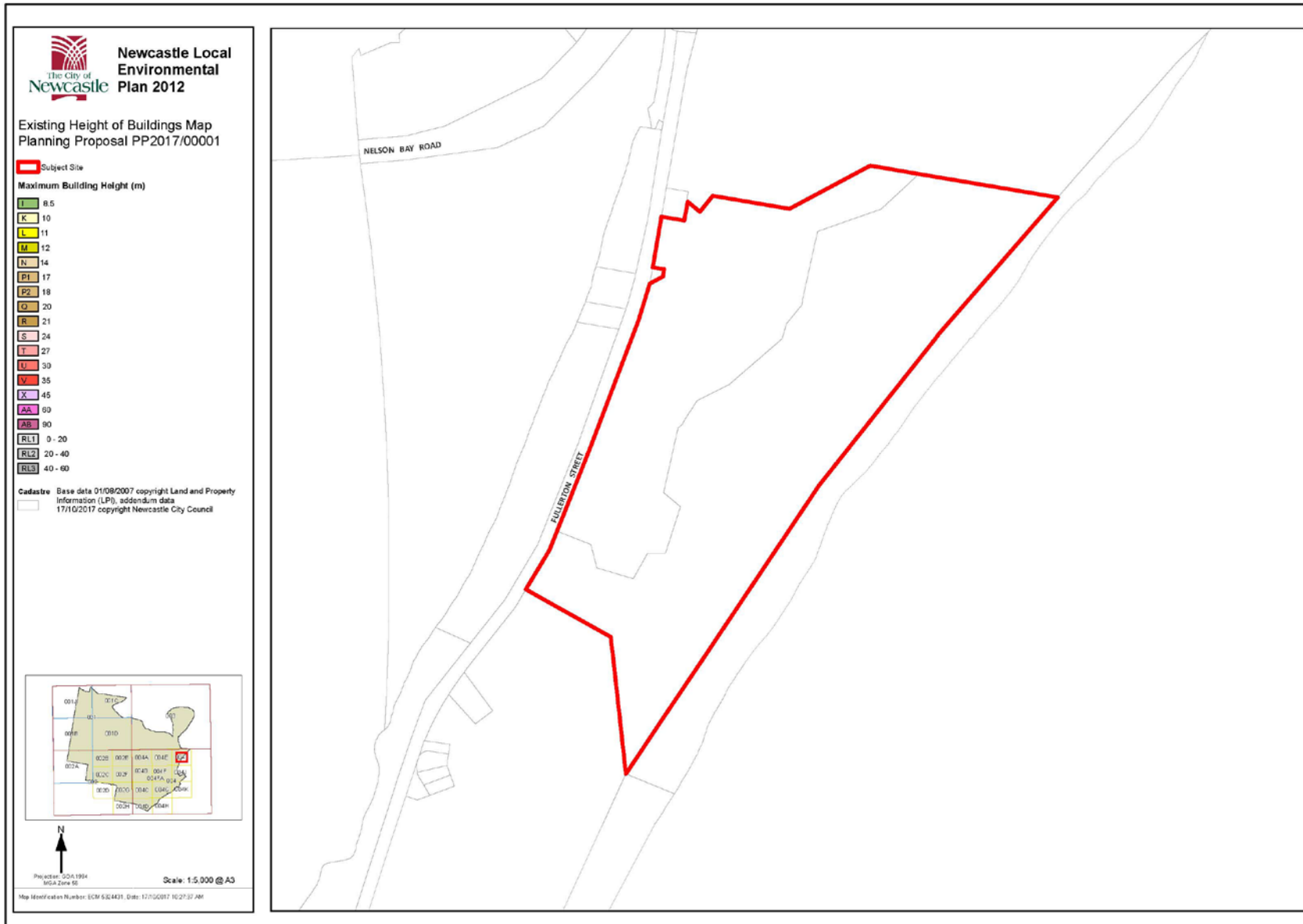


Figure 14 - Proposed Max Height of Buildings Map







Figure 16 - Proposed Min Lot Size Map



Figure 17 - Existing Heritage Map

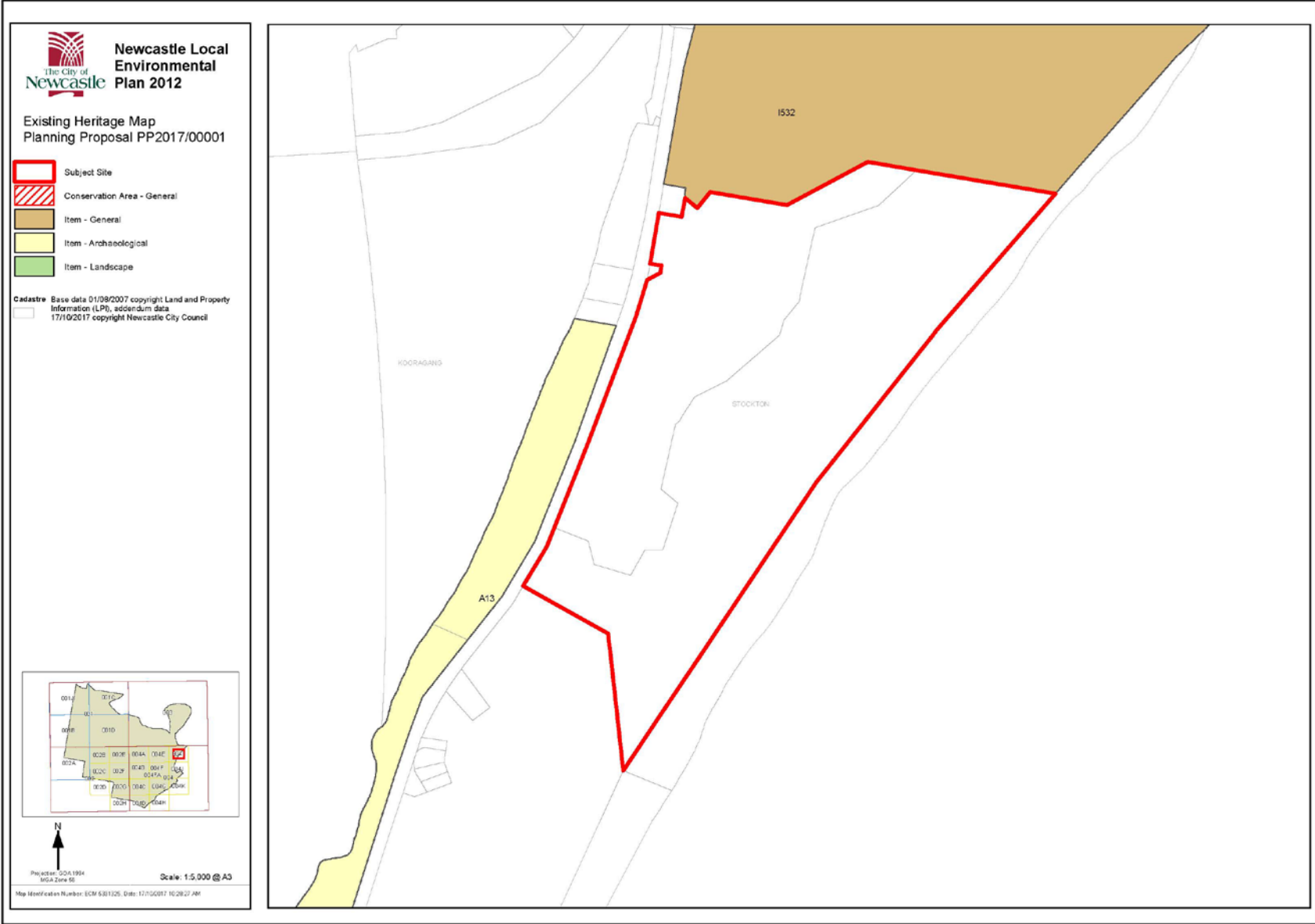
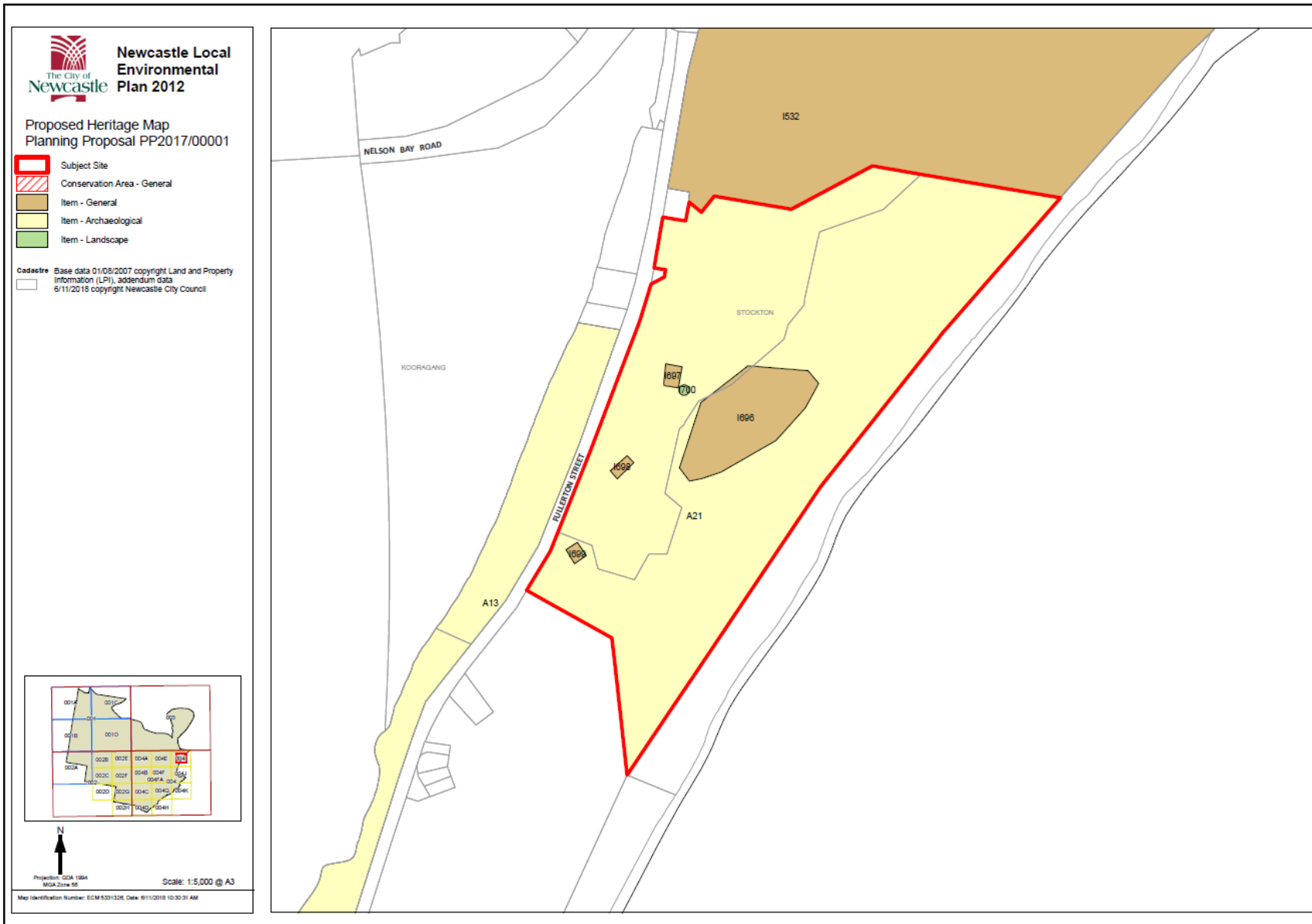


Figure 18 - Proposed Heritage Map



## Proposed changes to Schedule 5 Environmental heritage:

### Part 1 Heritage Items:

Stockton, Fort Wallace, Heritage Precinct including observation tower, gun emplacements, casualty station, engine and radio room, 338 Fullerton Street, Part Lot 101 DP 1152115, Local **I696**

Stockton, Fort Wallace, Drill Hall, 338 Fullerton Street, Part Lot 100 DP 1152115, Local **I697**

Stockton, Fort Wallace, Administration Building, 338 Fullerton Street, Part Lot 100 DP 1152115, Local **I698**

Stockton, Fort Wallace, Plotting Room, 338 Fullerton Street, Part Lot 101 DP 1152115, Local **I699**

Stockton, Fort Wallace, Gunner Hoban Tree, 338 Fullerton Street, Part Lot 100 DP 1152115, Local **I700**

### Part 3 Archaeological sites

Stockton, Stockton Bight Landscape including Fort Wallace, 338 Fullerton Street, Lot 100 & 101 DP 1152115, Local **A21**

## Part 5 - Community consultation

The planning proposal has been exhibited in accordance with the Department of Planning and Environment's guidelines, 'A guide to preparing local environmental plans' and Gateway Determination. It was placed on exhibition for a total of 28 days, from Monday 19 November - Monday 17 December 2018.

A total of four submissions were received. A summary of matters raised in the submissions is provided below:

#### *Submission 1*

Beach Access - Concern about limited beach access from the site. There is only one designated public access point located outside the main residential area of the development. The area behind Fort Wallace is a popular surfing spot, of which access is limited. It is recommended that better access to this part of the beach be considered in the proposal. This may consider options for parking.

Response - There is currently no access to the beach in North Stockton. One access point to the beach is considered a positive outcome, to support a development of this size and public access. The coastal zone is sensitive (culturally and environmentally). Consultation with agencies recommends limiting access to the beach to mitigate any potential negative impacts to the coastal landscape.

#### *Submission 2*

Beach Access - Concern about lack of beach access (in North Stockton) with only one access point as part of the proposal. Better access to North Stockton beach will be required as Stockton Beach erodes away. Nippers events are being held on the grass due to lack of beach and there are safety concerns with use of Stockton Beach in its current form. North Stockton Beach currently has poor amenity and access, with fencing to keep out the public.

Response - Noted. One access point to the beach is considered a positive outcome for improved access to the beach.

### Submission 3

Transport - The intensity of the development will have impacts on the existing residents. A second ferry wharf is recommended at the northern end of Stockton to service additional residents and commuters, linking up with Wickham Interchange.

Response - Noted. While, this is not a matter for the planning proposal, a strategy for the North Stockton and Fern Bay area is being prepared. Early consultation was undertaken, and an additional ferry stop has been suggested by members of the community. However, the ferry is not a specific matter for the planning proposal nor is it owned and managed by Council.

### Submission 4

Heritage - Recommends retention and preservation (and if possible showcasing) of the Fort and its infrastructure for current and future generations. The Fort forms a unique shape along the Stockton landscape. "Since it was built in 1912 the Fort has always been a distinct landmark in Stockton, a now historic, unique link to our war past but also to our continued commitment to our military services in peace-time war efforts...I would ask that Council remains mindful of this unique piece of Newcastle's history and embraces and showcases it in any proposed further development of the site. Respectfully, it is my belief that sections of Fort Wallace could and should be preserved and showcased and so are delighted to read visualise the concept of a Heritage Precinct as outlined in the Proposal."

The Historical Society has requested to be continued to be consulted in respect to future redevelopment of the site and proposed uses in heritage buildings. Furthermore, it is proposed that "careful consideration be given in planning the development to provision being made to accommodate the Society, its records and equipment within the Heritage Precinct (of the existing Fort infrastructure) in a community-owned building with long term tenancy granted to the Society at a nominal rent."

Response - The planning proposal supports retention and preservation of the Fort and defining a precinct will assist with this. In terms of different uses in the future, the request has been forwarded to DHA, the land and asset owner.

### Earlier consultation

Consultation has also been undertaken by the land owner (DHA) in 2016. Community consultation included meetings, newsletters, online activities, phone calls, emails, community information and feedback sessions. During this process the indicative concept plan for the site was made available for comment. The process and outcomes of early consultation is documented in the Consultation Report at Appendix N.

## Part 6 - Project timeline

The plan making process is shown in the timeline below. It will be undertaken in accordance with the Gateway determination.

Task	Planning Proposal Timeline				
	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19
Commencement and completion dates for public exhibition period	X	X			
Timeframe for consideration of submissions			X		
Report to Council				X	
Anticipated date RPA* will forward to the Department for notification for finalisation					X

\*RPA Relevant Planning Authority

**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
FORT WALLACE, STOCKTON - ADOPTION OF AMENDMENT TO  
NEWCASTLE LEP 2012 AND NEWCASTLE DCP 2012 SECTION 6.15**

**Attachment B:**      Section 6.15 - Fort Wallace, Stockton

Draft

## Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Type
1	___/___/20__	___/___/20__	New

## Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined taking into consideration the provisions of this section.

## Land to which this section applies

This section applies to land identified in **Figure 1 - Fort Wallace**:

**Figure 1 - Fort Wallace**



## Development (type/s) to which this section applies

This section applies to all development within Fort Wallace.



## Applicable environmental planning instruments and legislation

The provisions of the following listed environmental planning instrument/s also apply to development applications to which this section applies:

- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy No. 55 - Remediation of Land
- State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy - Coastal Management 2018.

In the event of any inconsistency between this section and the above listed environmental planning instrument, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: Section 74E (3) of the *Environmental Planning and Assessment Act 1979* enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

## Related sections

The following sections of this DCP **will** also apply to development to which this section applies:

- 3.01 Subdivision
- 4.04 Safety and Security
- 4.02 Bush Fire Protection
- 4.05 Social Impact
- 5.02 Land Contamination
- 7.02 Landscape, Open Space and Visual Amenity
- 7.03 Traffic, Parking and Access
- 7.06 Stormwater
- 7.07 Water Efficiency
- 7.08 Waste Management

The following sections of this DCP **may** also apply to development to which this section applies:

- 3.02 Single Dwellings
- 3.03 Residential Development
- 4.01 Flood Management
- 5.01 Soil Management
- 5.03 Vegetation Management
- 5.04 Aboriginal Heritage
- 5.05 Heritage Items
- 5.06 Archaeological Management
- 7.04 Movement Networks
- 7.11 Development Adjoining Laneways

In the event of any inconsistency between this section and the above listed DCP sections, this section prevails to the extent of the inconsistency.

## Associated technical manual/s

- *Guide to Road Design 2009*, Austroads Standards Australia
- *Guide to Road Safety 2009*, Austroads Standards Australia
- Standard Drawings, Newcastle City Council

## Additional information

The Urban Design and Landscape Report - Fort Wallace, Stockton (Architectus, 2018)

This section of the DCP has performance criteria that explain the planning outcomes to be achieved. These have been guided by the Urban Design and Landscape Report. Accompanying the performance criteria are acceptable solutions that illustrate the preferred way of complying with the corresponding performance criterion. There may be other ways of complying with performance criteria and it is up to the applicant to demonstrate how an alternative solution achieves this.

### Acceptable Solutions

The acceptable solutions provide a certain outcome of achieving compliance with Council controls for this section. To achieve the acceptable solution the applicant must demonstrate that they have satisfied the required control/s within each section. Any variation from the acceptable solution will mean the application will be required to meet the performance criteria for that section and the application will become a performance based assessment.

### Performance Criteria

The performance criteria permit applicants to be flexible and innovative in responding to the DCP requirements. Applications which meet the performance criteria are assessed on merit and it is the applicant's responsibility to demonstrate how the performance criteria have been met. Compliance with the performance criteria can be undertaken through the use of 3D montages, 3D models, constraints mapping and other forms of visual representation.

Note 1: Development application forms, checklists and other explanatory information are available on Council's website to assist with the use of this section of the Development Control Plan.

## Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Section 9.00 - Glossary, of this plan, and include:

- **'Fonzie flat'** - Self - contained flat above a garage.

## Vision

Fort Wallace will be a sensitively designed place. It will contain diverse housing forms that are of best practice design and well-connected open spaces. Areas with special ecological, heritage or cultural values will be protected, managed and restored.

## Aims of this section

1. To provide appropriate development controls for the sensitive and responsive development of the site and ensure best practice design.
2. To ensure development of the site embraces heritage and conserves ecological significance.
3. To guide delivery of diverse housing forms on the site to serve the needs of the community.
4. To protect important views through building design and location of building footprints.
5. To provide well-connected and high amenity open spaces that celebrate the sites unique and special history.

## Site history

Fort Wallace is located within a large dune formation known as Stockton Bight. The landscape contains a number of diverse Aboriginal sites that predate the arrival of European settlers and are of extreme significance to the traditional custodians of the land, the Worimi People.

A series of Aboriginal archaeological and cultural sites are situated along the Stockton Peninsula, and are known as the 'Fern Bay Complex'. The coastal location, unique landform and diversity of environments have provided rich marine, estuarine and forest resources to the Worimi People. Traditional knowledge records the presence of ceremonial and traditional burials sites as well as evidence of traditional Aboriginal hunting, fishing, and cultural activities. Further artefacts are likely to be present throughout Stockton Bight. The sites provide important information about the relationship and special connection Worimi people have with Stockton Bight.

Fort Wallace currently accommodates a range of disused defence buildings and infrastructure. The original fort was constructed in 1912. Two 6" guns were installed in 1915. These guns were replaced by 9" guns in 1939/40. In 1967, 130 Squadron moved to Fort Wallace, followed by the construction of new barracks in 1974. Additional construction took place on the site in 1982 to support 130 Squadron, including stores, workshop, administration, training and amenities buildings. 130 Squadron continued to use the site until the end of 1993.

The most recent use of the site was accommodation for the Australian Navy. The buildings were re-fitted as accommodation in 1996.

Defence ceased activity on the site in 2003. Fort Wallace formed part of the Commonwealth Heritage List in June 2006. The site is currently vacant, non-operational and secured.

## 6.15.01 Urban Structure

This section guides overall development of the site.

### A. Street layout and hierarchy

#### *Performance criteria*

1. Street layout and hierarchy are clearly legible and intuitive to users and encourage ease of use and access for pedestrians, cyclists and vehicles.
2. Streets and parking arrangements are to be informal with no kerb and gutter or formal avenue trees.
3. Adequate access is provided for emergency and maintenance vehicles.
4. Streets incorporate opportunities for Water Sensitive Urban Design and landscape planting of a variety of sizes and types.
5. Wayfinding signage (including street names) is clearly visible and legible.
6. Development of the site makes use of existing street infrastructure, including street layout to minimise disturbance of soil and vegetation.
7. Street layout incorporates varied edge conditions to ensure a sensitive transition to coastal bushland areas. Excessive lengths of perimeter roads are avoided.

#### *Acceptable solutions*

1. The street layout and hierarchy is provided as shown in **Figure 2** - Street layout and hierarchy.
2. All streets and lanes are designed in accordance with the street sections shown in **Figures 3 to 6**.

**Figure 2 - Street layout and hierarchy**

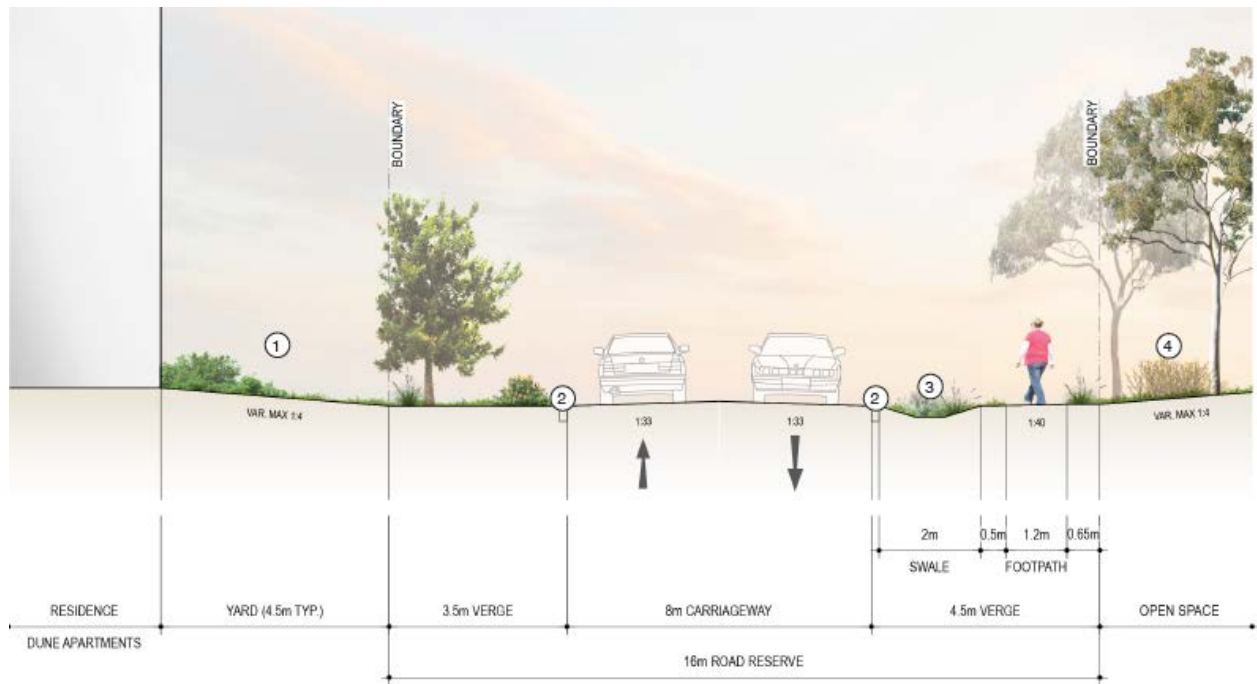


**Figure 3 - Road Type 1 Typical Section**



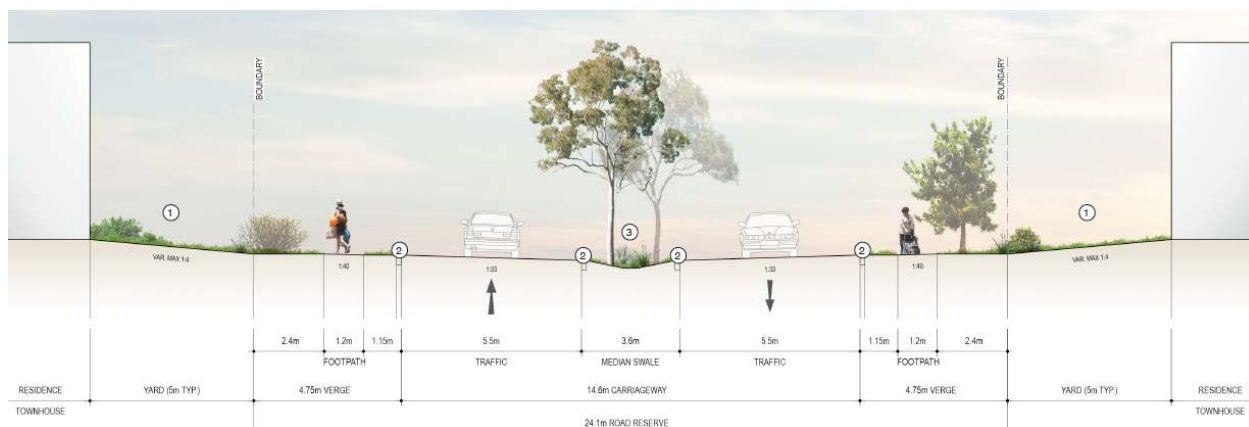
- 01/ Landscaped Fullerton Street frontage
- 02/ Vegetated swale
- 03/ Flush kerbs
- 04/ Private yard (Single Eco Home)

**Figure 4 - Road Type 2 Typical Section**



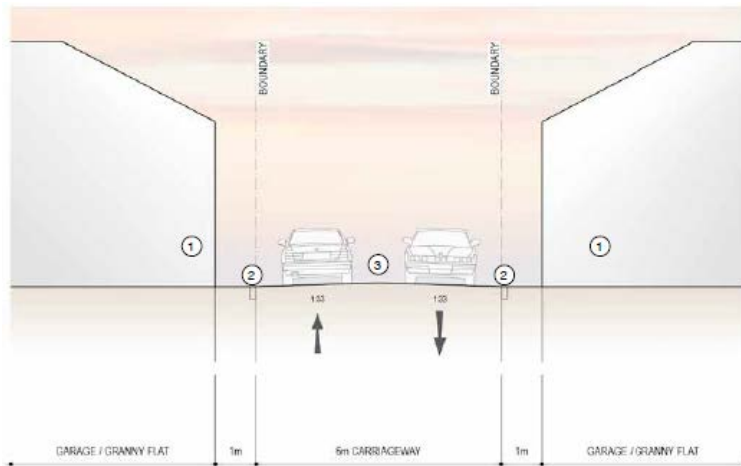
- 01/ Communal open space (Dune apartment)
- 02/ Flush kerbs
- 03/ Vegetated swale
- 04/ Communal open space

**Figure 5 - Road Type 3 Typical Section**



- 01/ Communal open space (Townhouse)
- 02/ Flush kerbs
- 03/ Central vegetated swale and street tree planting

**Figure 6 - Road Type 4 Typical Section**



01/ Garage or granny flat

02/ Flush kerbs

03/ Bidirectional laneway

## **B. Land use and development**

### **Performance criteria**

1. Development respects areas of high ecological and heritage significance.
2. Development responds to the risks associated with coastal erosion and provides appropriate setbacks for development and infrastructure.
3. A transition in dwelling form and density from the central development area to the bushland to the north and south is achieved.
4. Buildings respond to site topography and step with the land form to minimise earthworks and overall scale and massing.
5. Significant heritage structures are retained and development reflects a collective understanding and interpretation of the items as a group.
6. A landscaped frontage is provided to Fullerton Street that complements the coastal mangroves on the opposing bank and is able to accommodate landscaped drainage features.
7. The bulk and massing of buildings responds to the lot size with appropriately scaled buildings and setbacks.
8. Buildings are articulated through the use of windows, balconies, materials and finishes to minimise visual bulk.

## Acceptable solutions

1. The development layout and building typology is provided as shown in **Figure 7 - Land use and development area**.

**Figure 7 - Land use and development area**



### 6.15.02 Built form and character

This section guides development within the precincts and overall character.

#### A. All Character areas

##### Performance criteria

1. Significant heritage items are positively integrated and carefully managed.
2. Development provides an appropriate interface and transition to environmentally sensitive areas.
3. Development incorporates a managed bushland edge to reinforce coastal character.
4. Buildings are designed to touch lightly on the land and sit sensitively within the natural landscape.
5. Earthworks and areas of hard surface (slab on ground construction) are minimised.
6. A mix of building typologies, including smaller lot housing are provided to allow for housing choice.



7. Development utilises interesting architectural forms through staggered building heights, natural materials and finishes, articulated facades, vaulted and skillion roofs and varied street setbacks where appropriate.
8. Character areas respond appropriately to their unique setting.

## **B. Building setbacks**

### ***Performance criteria***

1. Sufficient setbacks are to be provided to lot boundaries to allow for building separation, create a landscaped setting for buildings, reduce the visual bulk and scale of buildings and provide reasonable sharing of views.
2. Delivery of consistent setbacks to ensure a high visual quality streetscape with a prevailing sense of openness.
3. Development is to maintain a visual continuity and pattern to buildings and landscape elements.
4. Ensure that each dwelling is afforded a degree of visual privacy through appropriate setbacks which minimise the extent of overlooking.

### ***Acceptable solutions***

1. Built form and character of areas are established as shown in **Figure 8**.

***Figure 8 - Character areas***



### C. Area 1 - Dune edge cluster housing

The precinct manages the transition between urban living and lands with environmental sensitivities. The housing form is typically multi-dwelling housing that reinforces the coastal character of the site with clustered dwellings that minimise building footprint, smaller, defined private open spaces, and larger, communal areas blending seamlessly with the bushland. This area should utilise low impact fencing and native landscaping.

Housing will be in accordance with the following guidelines, unless an alternative proposal can demonstrate an improved outcome in line with the key design outcomes of this section. **Key design outcomes**

Description: This dwelling typology provides an alternative to traditional townhouses or attached houses. By breaking down the layout into clusters of 2, 3 and 4 they provide views through the development to the bush and increase the sense of a connection with the surrounding landscape.

Indicative dwelling yield: 21-25 dwellings.

Maximum site coverage: 60% (all areas under the roof, including secondary dwellings and garages and all impermeable surfaces).

Minimum landscaped area: 40%.

Front setback: 5m.

Construction: Steel or timber frame with suspended composite concrete slab and skillion/vaulted roof.

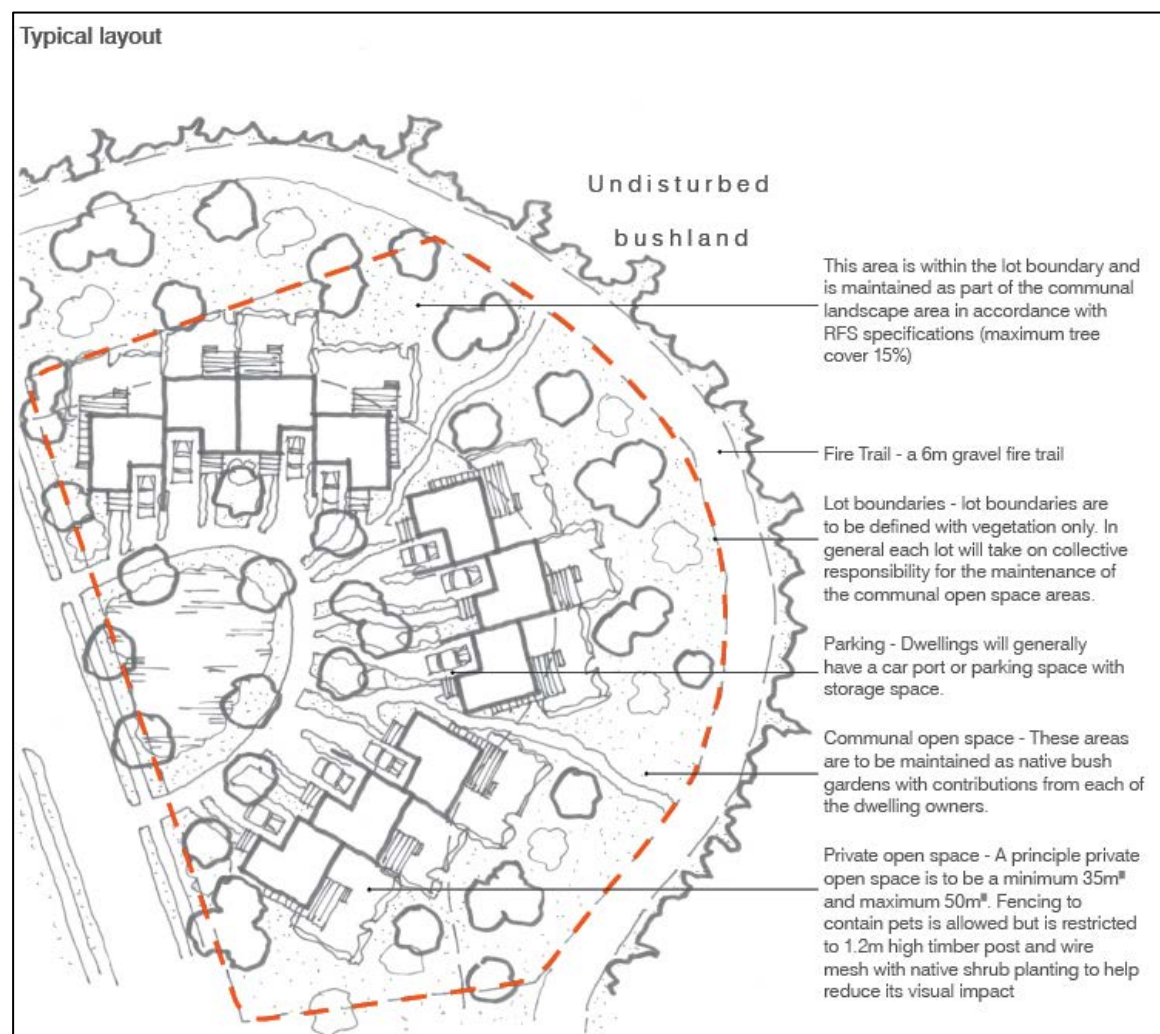
External materials: Combination of corrugated metal sheet and timber panel cladding.

Sustainability: Passive solar design, locally sourced materials, natural ventilation, high thermal performance, rain water harvesting, solar PV cells, minimise cut and fill, native drought tolerant species.

**Figure 9 - Dune edge cluster housing character areas**



**Figure 10 - Area 1 Dune edge cluster housing typology**



## D. Area 2 - Low-scale coastal apartment living

Low-scale apartment precinct with predominately three storey apartment buildings with a coastal character, utilising natural materials, open air balconies and staggered building forms. Built form works with the site topography to minimise the appearance of building height and maintain key views to and from heritage items, particularly the Observation Tower.

Housing will generally be in accordance with the following precedent and guideline, unless an alternative proposal can demonstrate an improved outcome in line with the key design outcomes of this section.

### Key design outcomes

Description: The apartments are designed to minimise overall building footprint and bulk and maximise visual connections with the surrounding landscape. Small footprints allow for up to 4 units per floor with the potential to allow for open undercroft spaces at ground floor and open stairwells and vertical circulation.

Indicative dwelling yield: 42 dwellings.

Maximum site coverage: 65%.

Minimum landscaped area: 35%.

Front setback: 3m.

Construction: Steel frame concrete slab, skillion/vaulted roofs.

External materials: Combination of corrugated metal sheet, timber panel cladding.

Sustainability: Passive solar design, locally sourced materials, naturally ventilated, high thermal performance, rain water harvesting, solar PV cells, minimise cut and fill, native drought tolerant species.

**Figure 11 - Low-scale coastal apartment living character areas**



**Figure 12 - Area 2 Low-scale coastal apartment living typology**

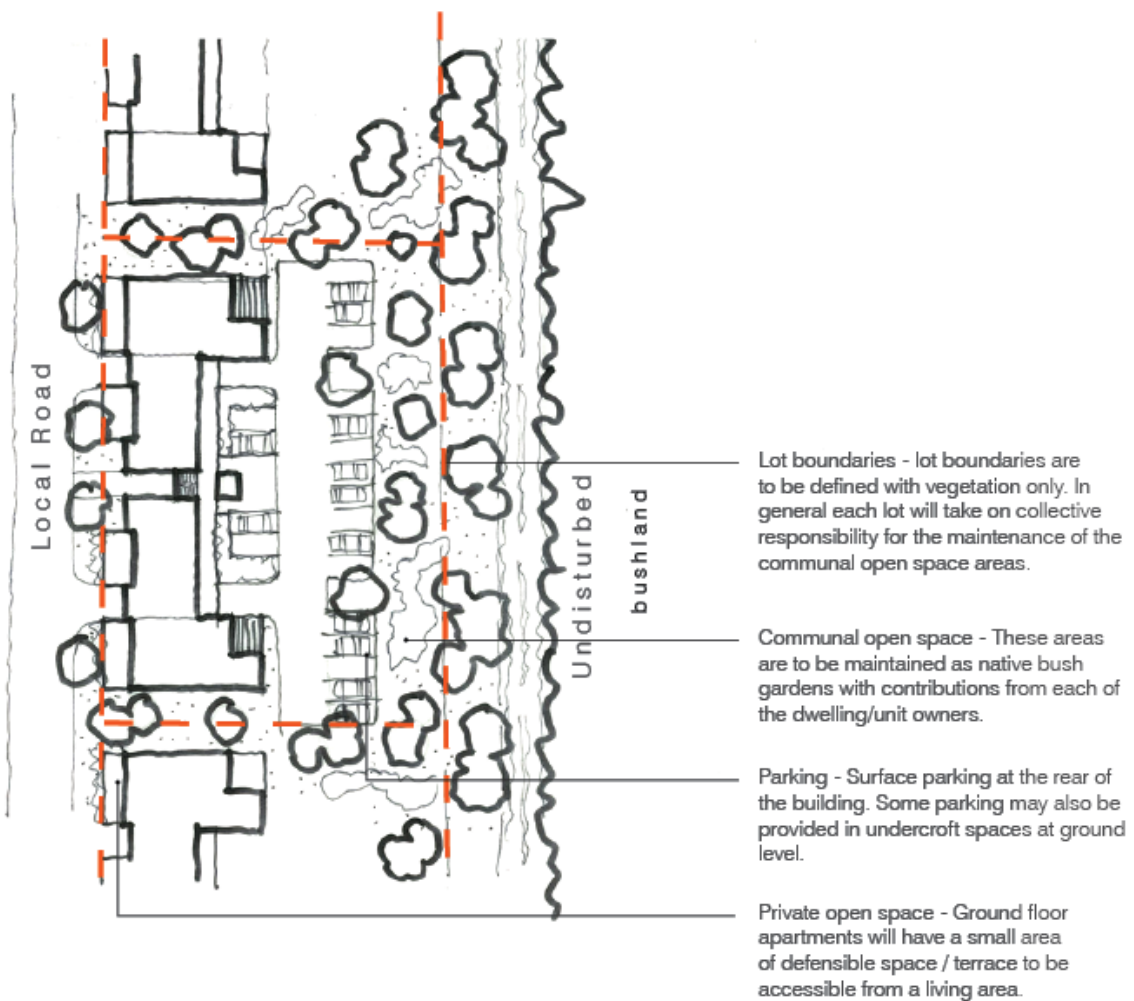


Viridian Noosa Residences - by JMA Architects



Timber coastal apartments - Wood Solutions

**Typical layout**



## E. Area 3 - Courtyard and attached housing

This precinct has a denser urban character in the central development area with a more traditional subdivision and street layout. This precinct will provide attached and semi-detached housing with high quality, well designed private areas that make the most efficient and effective use of space, serviced by rear lanes. Housing should be a mix of courtyard housing and attached housing.

Housing will generally be in accordance with the following precedent and guideline, unless an alternative proposal can demonstrate an improved outcome in line with the key design outcomes of this section.

Indicative dwelling yield: 33 dwellings

**Figure 13 - Courtyard and attached housing character areas**



### Key design outcomes - Courtyard housing

Description: This typology provides for a large family home including 4 bedrooms, 3 bathrooms, open plan living space, single garage and an ample rear garden. Dwellings are to be constructed on a zero lot line always on the same side with a 1.5m setback along the opposite boundary. This allows for a side pathway to access the rear garden and improves natural light and ventilation.

Maximum site coverage: 60% (all areas under the roof, including secondary dwellings and garages and all impermeable surfaces).

Minimum landscaped area: 40%

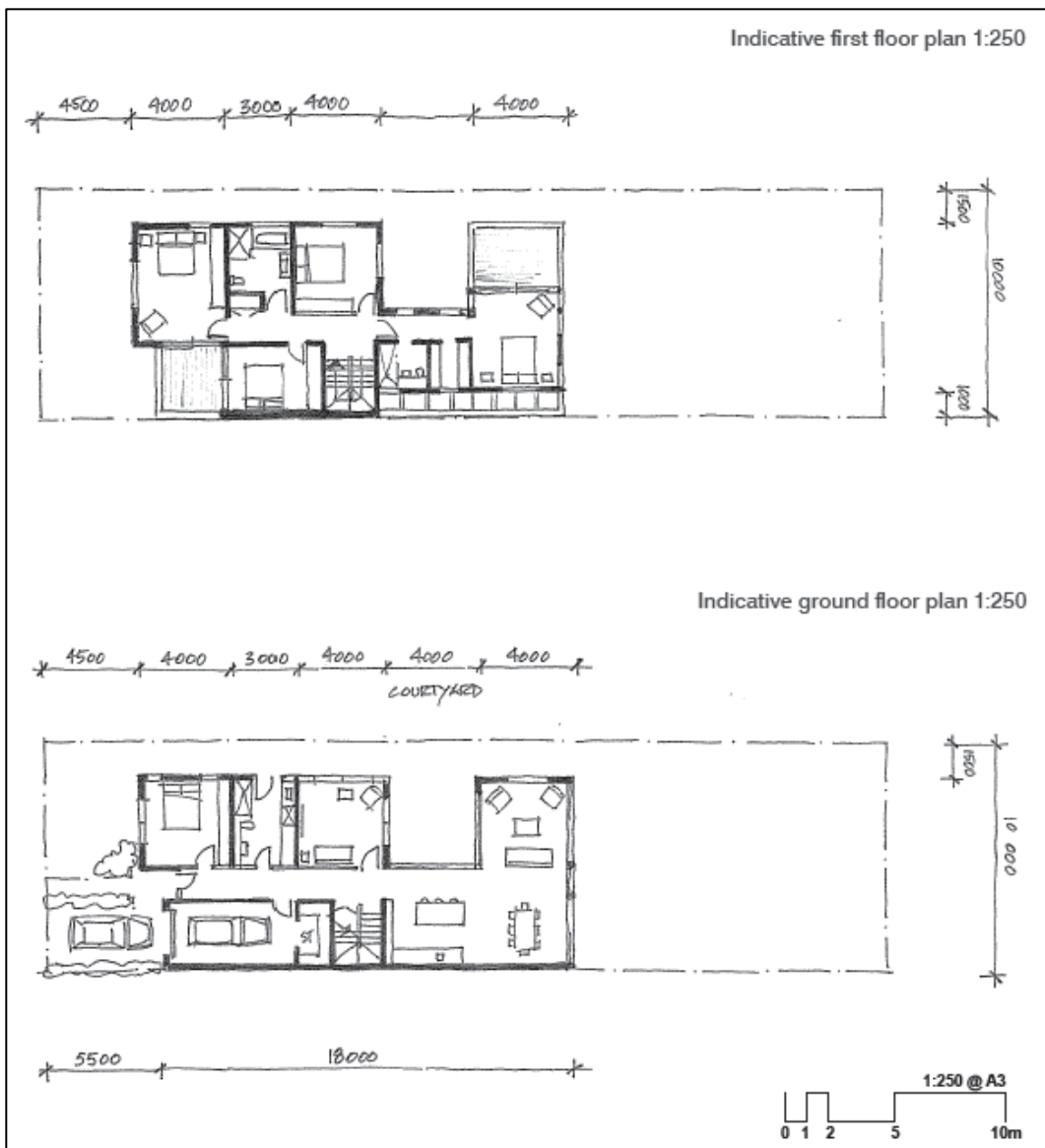
Front setback: 3m

Construction: Steel or timber frame on concrete slab, skillion/vaulted roof.

External materials: Combination of corrugated metal sheet, timber panel cladding and rendered masonry.

Sustainability: Passive solar design, locally sourced materials, naturally ventilated, high thermal performance, rain water harvesting, solar PV cells, minimise cut and fill, native drought tolerant planting.

Figure 14 - Courtyard housing typology



## Key design outcomes - Attached housing

Description: These 3 bedroom homes provide compact attached dwellings in locations where increased densities are appropriate. The rear lane access allows the front elevation of the house to be free from garage doors and parked cars which promotes good natural surveillance and an attractive street frontage. Above the rear double garage it is possible to have a secondary dwelling or 'Fonzie Flat' that provides a self-contained studio apartment that can provide additional family or guest accommodation, home occupation or rental return. The 'fonzie flat' also activates the laneway increasing safety and security through natural surveillance.

Maximum site coverage: 65% (all areas under the roof, including secondary dwellings and garages and all impermeable surfaces).

Minimum landscaped area: 35%

Front setback: 3m

Construction: Steel or timber frame on concrete slab, skillion/vaulted roof.

External materials: Combination of corrugated metal sheet, timber panel cladding and rendered masonry.

Sustainability: Locally sourced materials, naturally ventilated, high thermal performance, rain water harvesting, solar PV cells, minimise cut and fill, native drought tolerant planting.



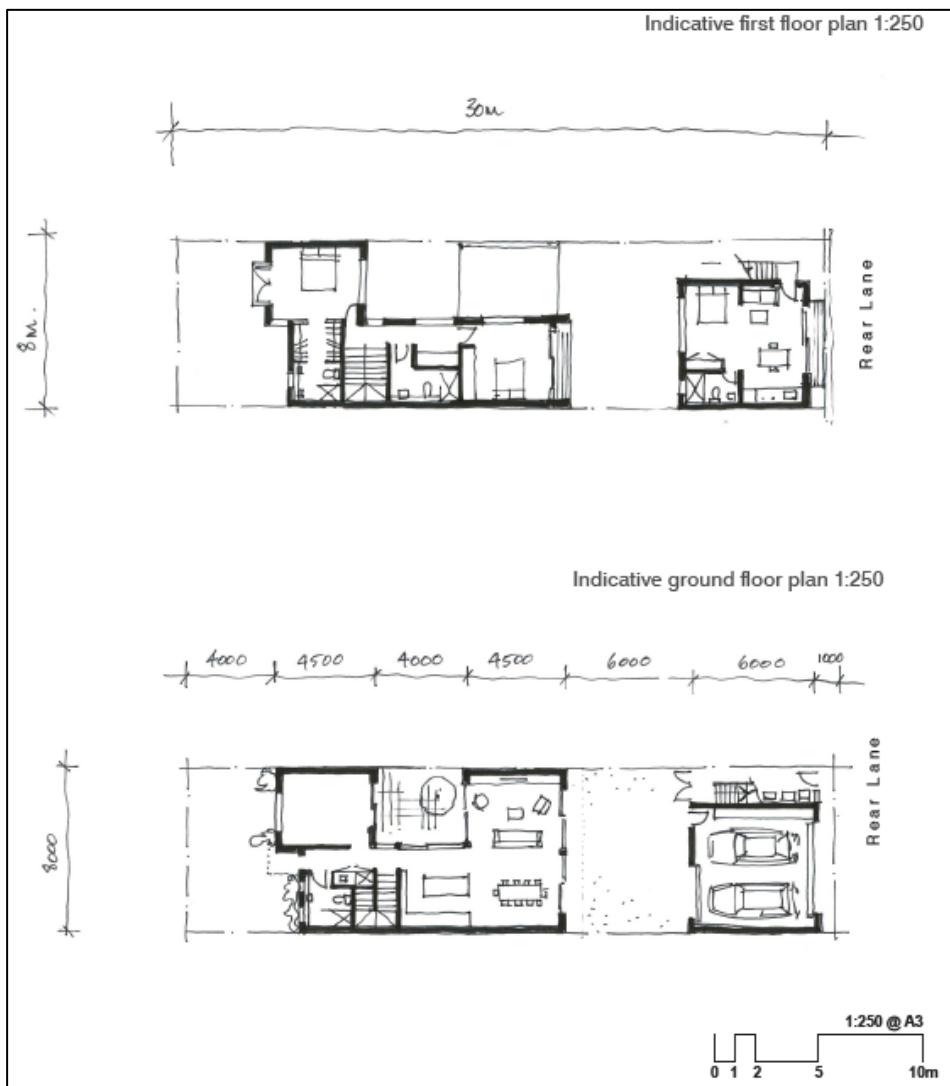
Figure 15 - Attached housing typology



Casuarina shores, showing an example of the relationship between townhouses and fonzie flats.



Lake Crackenback



## F. Area 4 - Single detached eco-living

Single, low scale detached dwelling houses with a focus on sustainable living and integration with the natural environment.

Housing will generally be in accordance with the following precedent and guideline, unless an alternative proposal can demonstrate an improved outcome in line with the key design outcomes of this section.

### Key design outcomes

Description: These homes are intended to be lightweight, climate responsive individual homes set within generous lots that are managed and maintained to contribute to the overall natural characteristics of the estate.

Indicative dwelling yield: 7 dwellings.

Maximum site coverage: 50% (all areas under the roof, including secondary dwellings and garages and all impermeable surfaces).

Minimum landscaped area: 50%

Front setback: 5m

Construction: Steel or timber frame with suspended composite concrete slab, skillion/vaulted roof.

External materials: Combination of corrugated metal sheet, timber panel cladding.

Sustainability: Passive solar design, locally sourced materials, naturally ventilated, high thermal performance, rain water harvesting, solar PV cells, minimise cut and fill, native drought tolerant species.

**Figure 16 - Single detached eco-living character areas**



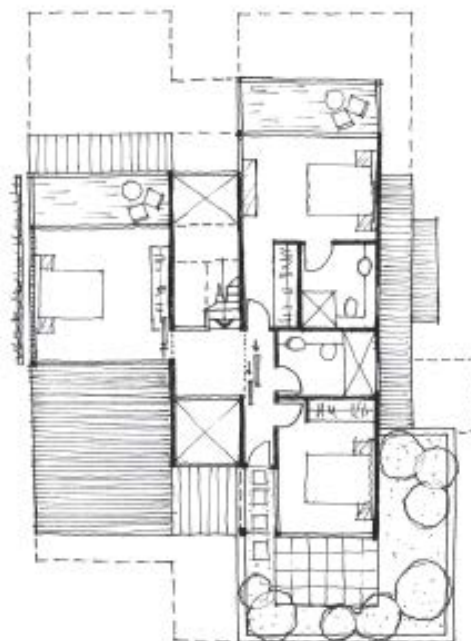
Figure 17 - Single detached eco-living typology



Indicative ground floor plan 1:200



Indicative first floor plan 1:200



Indicative dwelling sizes (exc external space and garage): 3 bed = 160m<sup>2</sup>

## G. Open spaces

### *Performance criteria*

1. The amenity of residential development and wellbeing of the Fort Wallace community is supported by both high quality and appropriate open spaces.
2. Open spaces are well designed, consider safety and provide opportunities for a range of activities.
3. Open spaces are to be well connected and have potential to further connect with open space networks along the Peninsula.
4. Open spaces protect and celebrate the heritage of Fort Wallace by interpretation and appropriate landscape buffers between heritage items and development.

### *Acceptable solutions*

1. The location and design of new open space is provided in accordance with **Figure 18 - Landscape and open space hierarchy**.

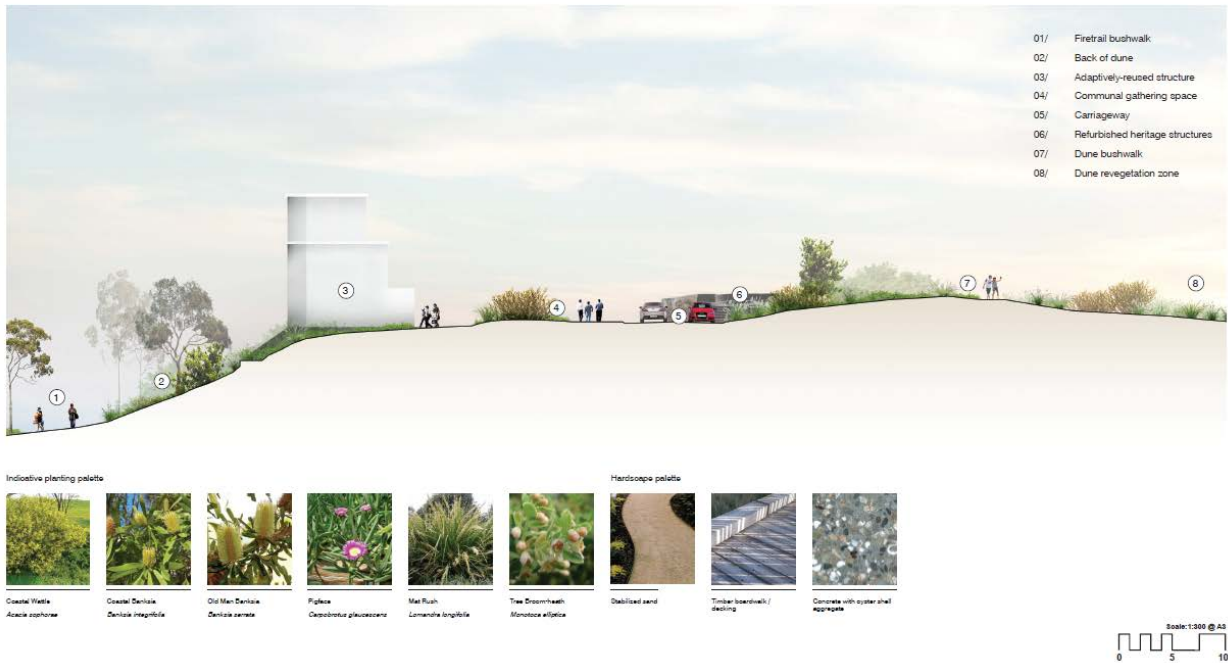
**Figure 18 - Landscape and open space hierarchy**



**Figure 19 - Indicative heritage precinct section**

**Area A - Heritage Precinct**

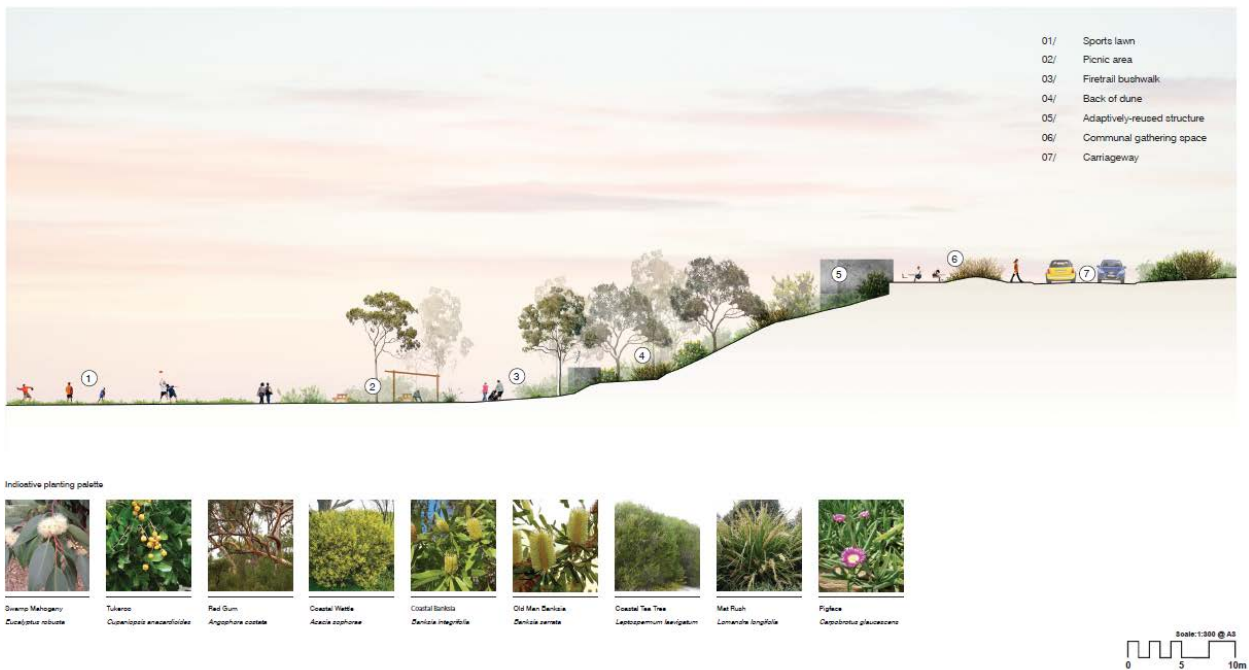
*Interpretive Heritage Park section*



**Figure 20 - Indicative park section**

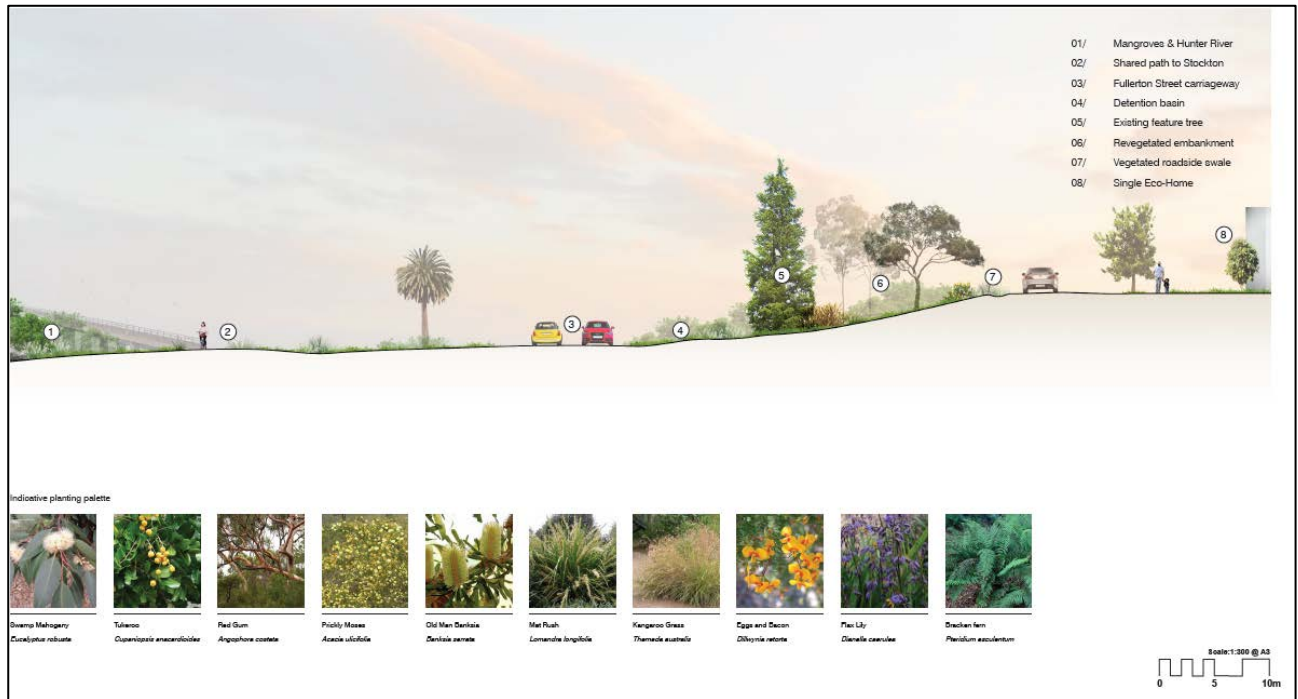
**Area B - Park**

*Communal Open Space section*



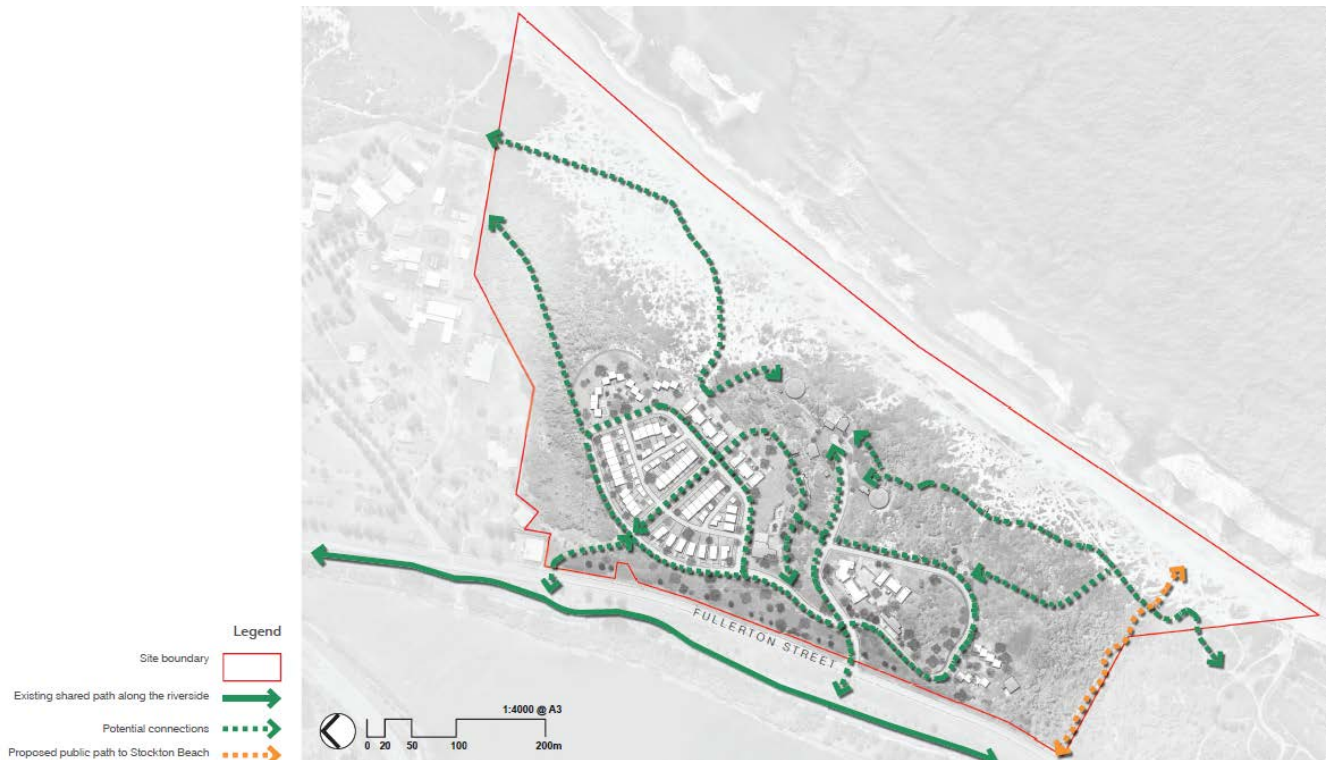
**Figure 21 - Frontage to Fullerton Street section**

**Area C - Fullerton Street**



2. Access and connections will be provided in accordance with **Figure 22**.

**Figure 22 - Access and connections**



### 6.15.03 Site planning

This section refers to bushfire risk, future connections, heritage, important views and off street car parking.

#### A. Asset Protection Zones

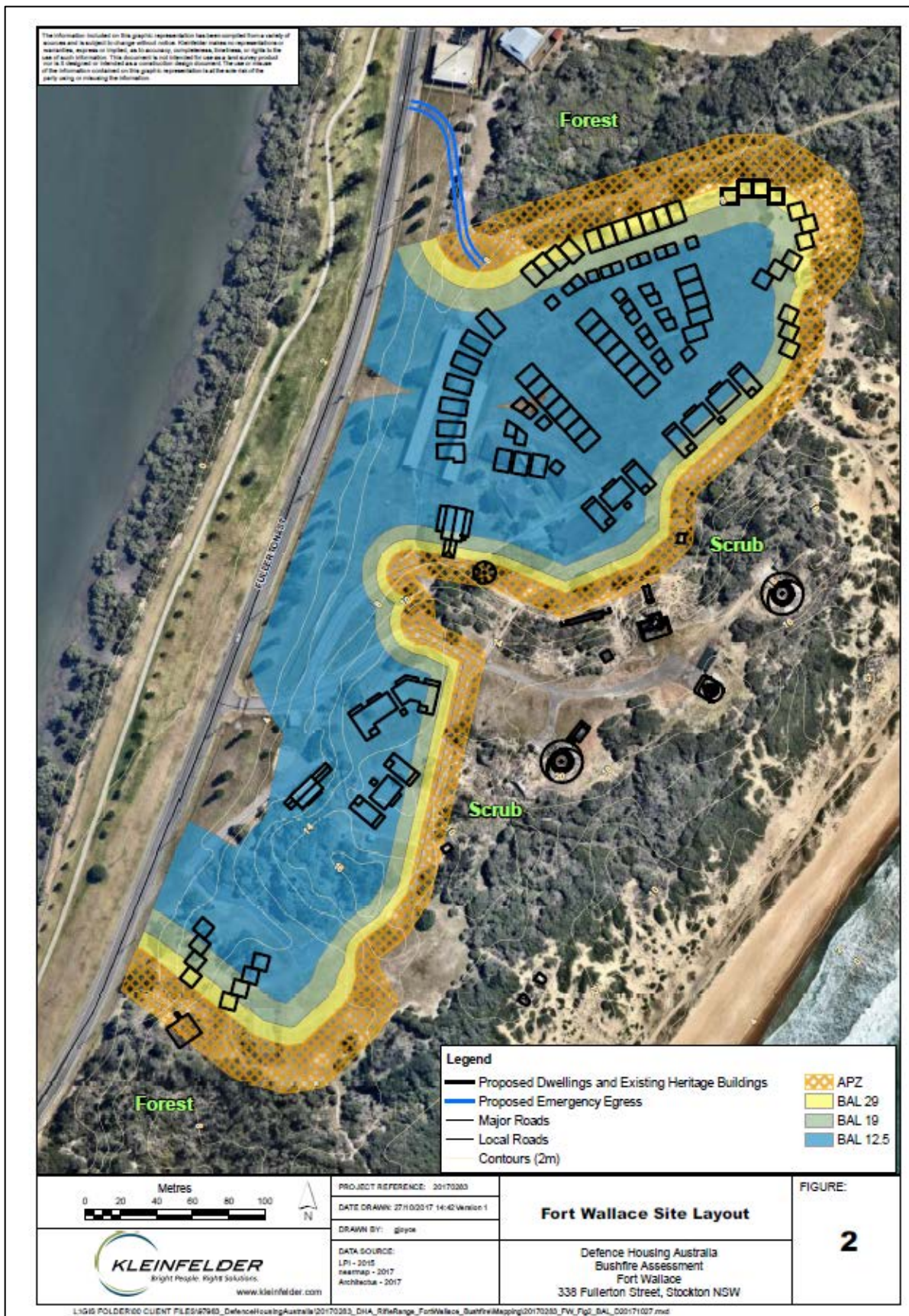
##### *Performance criteria*

1. The location and design of dwellings respond to bushfire risk.
2. Asset protection zones are designed and maintained to balance fuel reduction, a landscaped setting for dwellings and biodiversity.
3. Clear and equitable management of asset protection zones.

##### *Acceptable solutions*

1. Asset protection zones are provided in accordance with **Figure 23**.
2. Timber or timber-look products treated to meet Australian Standards for the relevant bushfire attack level (BAL rating) are used.
3. Asset protection zones are designed to manage fuel loads and maintain structure of an open, non-connected tree canopy, spaced large trees, with shrub gardens as islands.

Figure 23 - Asset Protection Zones





## B. Heritage

### Performance criteria

1. Development appropriately responds to heritage items on the site.
2. Development facilitates an appreciation of the heritage items individually and as a whole.
3. Development facilitates the appropriate management of the site's heritage values into the future.
4. To identify and manage any potential impacts on Aboriginal cultural heritage.

### Acceptable solutions

1. A built form development buffer is maintained to heritage items as shown in **Figure 24** - Development to buffer to heritage items.
2. Consideration is given to views to and from heritage items on the site from open spaces (see **Figure 25** - Internal view corridors and **Figure 26** - External view corridors) in the massing and design of buildings and landscaping.
3. Heritage items form part of an integrated open space plan for the site.
4. Development of the site is undertaken in accordance with recommendations of an Aboriginal Cultural Heritage Management Plan prepared for the site accompanying a Stage 1 DA.

**Figure 24 - Development buffer to heritage items**



**Figure 25 - Internal view corridors**



**Figure 26 - External view corridors**



## **C. Car parking**

### ***Performance criteria***

1. Car parking associated with development has a low visual impact.
2. Earthworks and disruption to the site ecology are minimised.

### ***Acceptable solutions***

1. Car parking is provided at grade.
2. Car parking is located to the rear of properties.
3. Basement car parking is not provided.

## **D. Fencing and domestic pets**

### ***Performance criteria***

1. Fencing is minimised across the site.
2. Fencing has low visual impact.
3. Pet ownership is to be controlled within the development.

### ***Acceptable solutions***

1. Landscaping is used to delineate the boundary between private and communal spaces as an alternative to fencing.
2. Where fences are needed for adequate management of land and pets or safety, fencing is a maximum 1.2m high timber post and wire mesh with native shrub planting.

**ORDINARY COUNCIL MEETING  
26 MARCH 2019**

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**CCL 26/03/19  
FORT WALLACE, STOCKTON - ADOPTION OF AMENDMENT TO  
NEWCASTLE LEP 2012 AND NEWCASTLE DCP 2012 SECTION 6.15**

**Attachement C**      Summary of Submissions

## Attachment C

### Community consultation: result of exhibition of Planning Proposal

The planning proposal has been exhibited in accordance with the Department of Planning and Environment's guidelines, '*A guide to preparing local environmental plans*' and Gateway Determination. It was placed on exhibition for a total of 28 days, from Monday 19 November 2018 - Monday 17 December 2018.

A total of four submissions were received. A summary of matters raised in the submissions are provided below:

#### **Submission 1**

Beach Access - Concern about limited beach access from the site. There is only one designated public access point located outside the main residential area of the development. The area behind Fort Wallace is a popular surfing spot, of which access is limited. It is recommended that better access to this part of the beach be considered in the proposal. This may consider options for parking.

**Response** - There is currently no access to the beach in North Stockton. One access point to the beach is considered a positive outcome, to support a development of this size and public access. The coastal zone is sensitive (culturally and environmentally). Consultation with agencies recommends limiting access to the beach to mitigate any potential negative impacts to the coastal landscape. No change to Planning Proposal is proposed.

#### **Submission 2**

Beach Access - Concern about lack of beach access (in North Stockton) with only one access point as part of the proposal. Better access to North Stockton beach will be required as Stockton Beach erodes away. Nippers events are being held on the grass due to lack of beach and there are safety concerns with use of Stockton Beach in its current form. North Stockton Beach currently has poor amenity and access, with fencing to keep out the public.

**Response** - Noted. One access point to the beach is considered a positive outcome for improved access to the beach. No change to Planning Proposal is proposed.

#### **Submission 3**

Transport - The intensity of the development will have impacts on the existing residents. A second ferry wharf is recommended at the northern end of Stockton to service additional residents and commuters, linking up with Wickham Interchange.

**Response** - Noted. While, this is not a matter for the planning proposal, a strategy for the North Stockton and Fern Bay area is being prepared. Early consultation was undertaken, and an additional ferry stop has been suggested by members of the community. However, the ferry is not a specific matter for the planning proposal nor is it owned and managed by Council. No change to Planning Proposal is proposed.

#### ***Submission 4***

Heritage - Recommends retention and preservation (and if possible showcasing) of the Fort and its infrastructure for current and future generations. The Fort forms a unique shape along the Stockton landscape. "Since it was built in 1912 the Fort has always been a distinct landmark in Stockton, a now historic, unique link to our war past but also to our continued commitment to our military services in peace-time war efforts...I would ask that Council remains mindful of this unique piece of Newcastle's history and embraces and showcases it in any proposed further development of the site. Respectfully, it is my belief that sections of Fort Wallace could and should be preserved and showcased and so are delighted to read visualise the concept of a Heritage Precinct as outlined in the Proposal."

The Historical Society has requested to be continued to be consulted in respect to future redevelopment of the site and proposed uses in heritage buildings. Furthermore, it is proposed that "careful consideration be given in planning the development to provision being made to accommodate the Society, its records and equipment within the Heritage Precinct (of the existing Fort infrastructure) in a community-owned building with long term tenancy granted to the Society at a nominal rent."

**Response** - The planning proposal supports retention and preservation of the Fort and defining a precinct will assist with this. In terms of different uses in the future, the request has been forwarded to DHA, the land and asset owner. No change to Planning Proposal is proposed.

#### ***Earlier consultation***

Consultation has also been undertaken by the land owner (DHA) in 2016. Community consultation included meetings, newsletters, online activities, phone calls, emails, community information and feedback sessions. During this process the indicative concept plan for the site was made available for comment. The process and outcomes of early consultation is documented in the Consultation Report at **Appendix N** in the Planning Proposal.