

# City Road Upgrade, Northcott Drive and Kahibah Road

## Submissions report

Roads and Maritime Services | May 2019





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# Document controls

## Approval and authorisation

Title	City Road Upgrade, Northcott Drive and Kahibah Road Response to Submissions Report		
Accepted on behalf of NSW Roads and Maritime Services by:	Andrew Thompson Project Development Manager		
Signed:			
Dated:	30.5.2019		

## Document status

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V4 Final	17/05/19	Clare Naylor	Tim Browne



# Executive summary

## The proposal

Roads and Maritime Services proposes to upgrade a section of City Road/Pacific Highway (referred to herein as City Road) including two signalised intersections at Kahibah Road, Highfields and Northcott Drive, Adamstown Heights. The proposal would improve the efficiency of through traffic on this regional road and reduce queuing associated with turning movements from City Road.

Key features of the proposal would include:

- Extending turning lanes from City Road into Northcott Drive and Kahibah Road
- Building a new eastbound left turning lane into Northcott Drive
- Building a new westbound left turning lane into Kahibah Road and an additional shared (left / right) turn lane out of Kahibah Road
- Widening City Road and Kahibah Road within the proposal area
- Removing and replacing portions of existing kerb and channel on City Road
- Installing a retaining wall on City Road immediately west of Northcott Drive intersection
- Providing pedestrian crossing facilities across Northcott Drive and City Road and footpath and safety barrier on City Road
- Rebuilding existing median on City Road and Kahibah Road
- Installing and line marking new road surface
- Installing temporary site compound in the service road from City Road into Highfields Parade removing access during construction
- Ancillary construction facilities including two stockpile areas.

The proposed work would start in late 2020 and is anticipated to take up to 12 months to complete.

## Display of the Review of Environmental Factors

Roads and Maritime prepared a Review of Environmental Factors (REF) for the City Road Upgrade, Northcott Drive and Kahibah Road proposal. The REF was publicly displayed between Monday 4 February 2019 and Monday 4 March 2019 at Newcastle City Council, Lake Macquarie City Council, Charlestown Library and Newcastle Region Library.

Roads and Maritime published the REF also on the project website and made it available for download. During this time, Roads and Maritime invited the public to provide feedback on the proposal.

A project update notifying the public display period, contact methods, closing date for submissions, location of the hard copy documents, and project website was distributed to residences and businesses in the vicinity of the proposal on 4 February 2019.

A media release was issued on Monday 4 February 2019 inviting comments for the proposal.

## Summary of issues and responses

A total of 32 submissions were received in response to the display of the REF. This included submissions from one government agency (Hunter Water) and 31 submissions from the community. Nineteen submissions were received through the project website online feedback form, with the remaining submissions received by combination of email or telephone.

The breakdown of the submissions received on the proposal as displayed in the REF is as follows:

- 13 of the respondents provided no objection or support for the proposal (41 per cent)
- 14 of the respondents objected to the proposal (44 per cent)
- Five of the respondents supported the proposal (15 per cent)

Consultation under the *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)* was carried out with Newcastle City Council, Lake Macquarie City Council and Subsidence Advisory NSW during the development of the REF. No further feedback was received during the public display period.

Key concerns raised by respondents were:

- The proposal did not consider the current constraints for motorists accessing Kahibah Road from Highfields Parade
- The proposed road widening along City Road would result in safety impacts when entering and leaving private properties
- Pedestrian safety within the proposal area
- Provision and safety for cyclists
- Community consultation during the proposal development.

A comprehensive summary of the main issues raised and responses to those issues are provided in Chapter 2.

Roads and Maritime has responded to these comments in Chapter 2 as follows:

- To address concerns raised regarding the Kahibah Road/Highfields Parade intersection the proposal would involve:
  - Modification of the Concept design to maintain current separation distance between motorists at the corner of City Road/Kahibah Road and motorists exiting Highfields Parade onto Kahibah Road.
  - Widening of the existing median in Highfields Parade and modifying the existing kerb to move the exit of Highfields Parade further south to maintain current separation distance.
- To address access concerns raised by community members living on City Road, Roads and Maritime has met with respondents to discuss their concerns and understand mitigation options that would retain or improve the current situation for residents entering/leaving their properties. Roads and Maritime has agreed to adjust driveways for the respondents, which would involve widening at the kerb of the current driveway arrangements, to provide additional room to turn and manoeuvre vehicles before entering the road reserve. Roads and Maritime has also committed to investigating the potential impacts to the other properties along City Road that may be impacted by the road widening.
- To improve pedestrian access, the proposal would involve the provision of a new pedestrian crossing facility across Northcott Drive and would upgrade the existing pedestrian crossing across City Road (near Northcott Drive) to meet Disability Standards for Accessible Public Transport 2002 (DSAPT). In response to community feedback and submissions, Roads and Maritime is proposing to amend the current concept design in relation to the proposed footpath and pedestrian crossing facilities through the community parkland area near the City Road/Kahibah Road intersection.

## Changes made to the proposal to address concerns raised

- At the Kahibah Road/Highfields Parade intersection, Roads and Maritime is proposing to move the current exit out of Highfields Parade further south to maintain existing separation distances with the left turn lane into Kahibah Road from City Road
- For improved pedestrian access, Roads and Maritime proposes to amend the current concept design of the footpath and pedestrian crossing through the community parkland area near the City Road/Kahibah Road intersection.

The proposed changes are described in Chapter 3.

## Additional environmental assessment

Roads and Maritime carried out an additional assessment to consider:

- Removing additional vegetation that was not included in the REF
- Private property impacts on some residents along City Road due to road widening.

The additional environmental assessment is provided in Chapter 4.

## Next steps

Roads and Maritime, as the determining authority under the Environmental Planning and Assessment Act 1979, has considered the information in the REF and this submissions report and make a decision to proceed with the proposal.

Roads and Maritime will inform the community and stakeholders of this decision and will continue to consult with the community and stakeholders prior to and during the construction phase.

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# 1. Introduction and background

## 1.1 The proposal

Roads and Maritime proposes to upgrade a section of City Road including two signalised intersections at Kahibah Road, Highfields and Northcott Drive, Adamstown Heights. The proposal would improve the efficiency of through traffic on this regional road and reduce queuing associated with turning movements from City Road.

Key features of the proposal would include:

- Extending turning lanes from City Road into Northcott Drive and Kahibah Road
- Building a new eastbound left turning lane into Northcott Drive
- Building a new westbound left turning lane into Kahibah Road and an additional shared (left / right) turn lane out of Kahibah Road
- Widening City Road and Kahibah Road within the proposal area
- Removing and replacing portions of existing kerb and channel on City Road
- Installing a retaining wall on City Road immediately west of Northcott Drive intersection
- Providing pedestrian crossing facilities across Northcott Drive and City Road and footpath and safety barrier on City Road
- Rebuilding existing median on City Road and Kahibah Road
- Installing and line marking new road surface
- Installing temporary site compound in the service road from City Road into Highfields Parade removing access during construction
- Ancillary construction facilities including two stockpile areas.

The proposed work would start in late 2020 and is anticipated to take up to 12 months to complete.

A more detailed description of the proposal is found in Section 3 of the REF prepared by Roads and Maritime in January 2019.

Figures 1.1 and 1.2 identify the key features of the proposal.



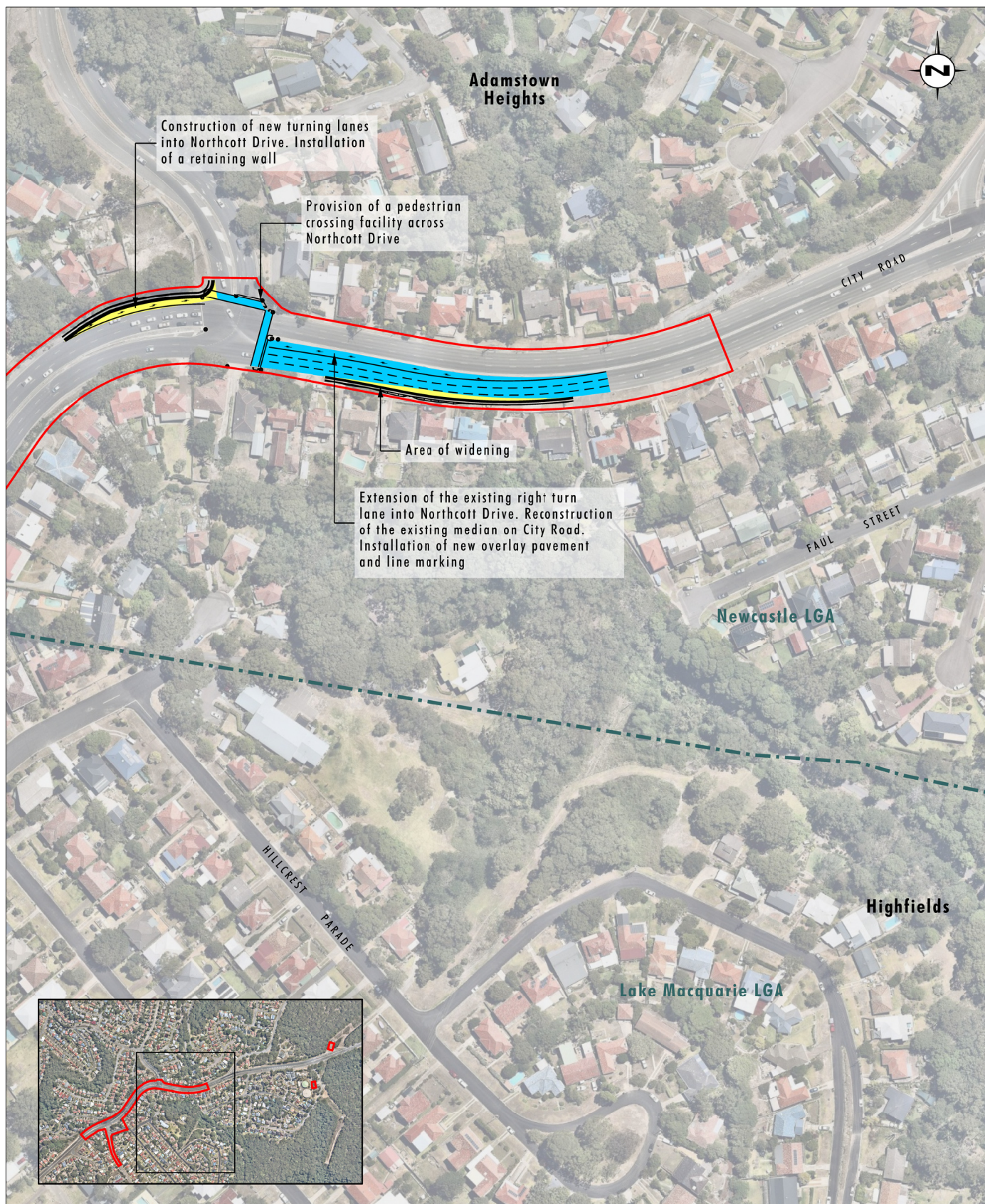


Image Source: Nearmap (Feb 2018)

Data Source: RMS (2018)

Note: Proposed infrastructure subject to detailed design

## Legend

- Proposal Area
- Local Government Authority Boundary
- Concept Design
- Proposed Road Widening
- Proposed Overlay Pavement

FIGURE 1.1

Key Features of the Proposal



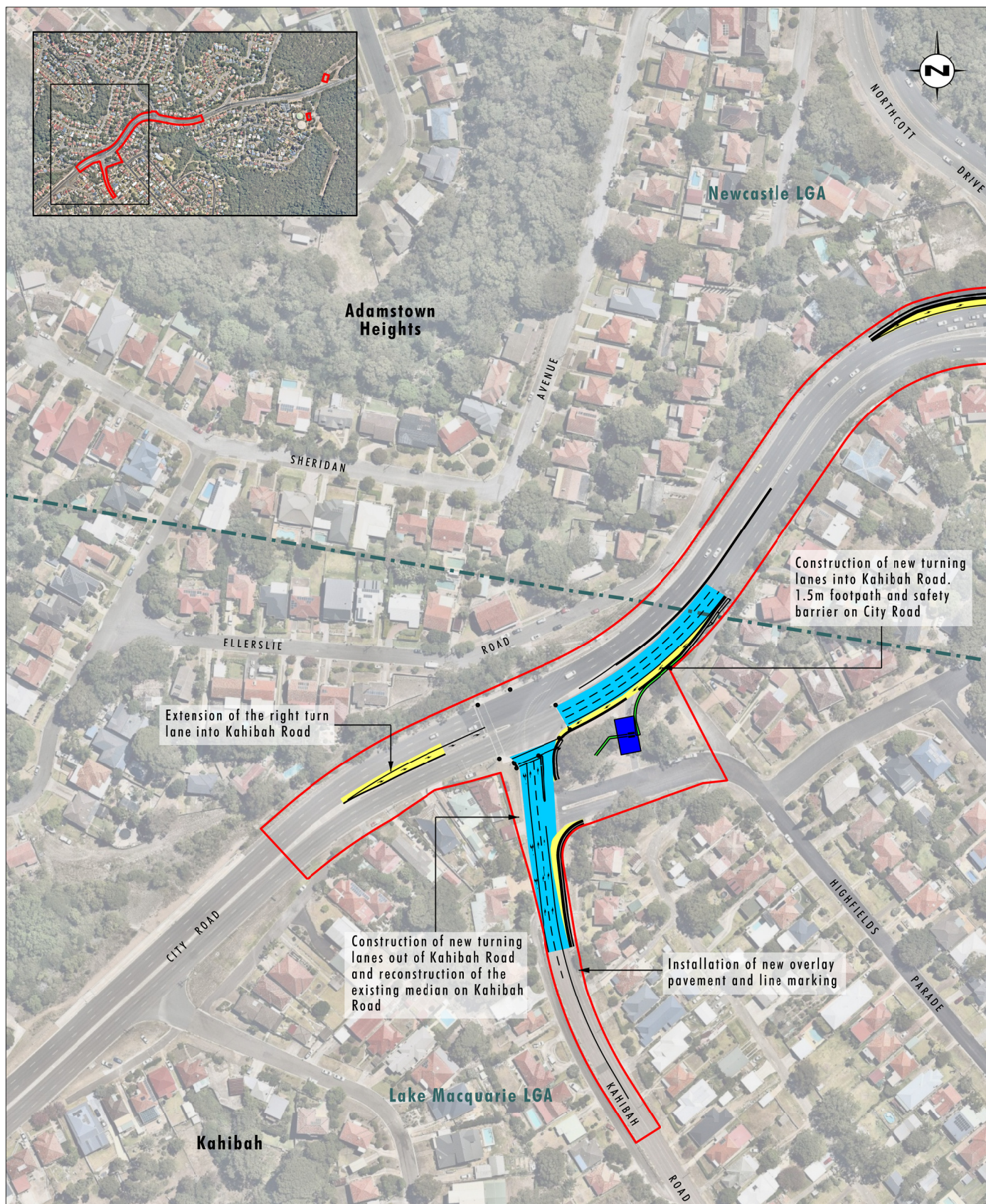


Image Source: Nearmap (Feb 2018)

Data Source: RMS (2018)

Note: Proposed infrastructure subject to detailed design

### Legend

- Proposal Area
- Local Government Authority Boundary
- Concept Design
- Ancillary Facilities
- Proposed Road Widening
- Proposed Overlay Pavement

File Name (A4): R05/4263\_062.dgn  
20190405 15.23

FIGURE 1.2

Key Features of the Proposal



## 1.2 REF display

Roads and Maritime prepared a Review of Environmental Factors (REF) for the City Road Upgrade, Northcott Drive and Kahibah Road proposal. The REF was publicly displayed between Monday 4 February 2019 and Monday 4 March 2019 at the locations listed in Table 1.1 below.

Roads and Maritime published the REF also on the project website and made it available for download. During this time, Roads and Maritime invited the public to provide feedback on the proposal.

A project update notifying the public display period, contact methods, closing date for submissions, location of the hard copy documents, and project website was distributed to residences and businesses in the vicinity of the proposal on 4 February 2019.

A media release was issued on Monday 4 February 2019 inviting comments for the proposal.

Table 1.1: Display locations

Location	Address
Newcastle City Council Administration Building	Ground Floor, 282 King Street, Newcastle
Newcastle Region Library	15 Laman Street, Newcastle
Lake Macquarie City Council	126-138 Main Road, Speers Point
Charlestown Library	Corner Smith and Ridley Street, Charlestown

## 1.3 Purpose of the report

This submissions report relates to the REF prepared for the City Road Upgrade, Northcott Drive and Kahibah Road proposal and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the proposal and the REF were received by Roads and Maritime. This submissions report summarises the issues raised and provides responses to each issue (Chapter 2). It details investigations carried out since finalisation of the REF (Chapter 3), describes and assesses the environmental impact of changes to the proposal (Chapter 4) and identifies new or revised environmental management measures (Chapter 5).

No proposal changes are proposed that would require the preparation of a preferred infrastructure report.

## 2. Response to issues

Roads and Maritime Services received 30 submissions, accepted up until 4 March 2019 and two late submissions received on 12 March 2019 and 20 March 2019. Table 2.1 lists the respondents and each respondent's allocated submission number. The table also indicates where the issues from each submission have been addressed in Chapter 3 of this report.

Table 2.1: Respondents

Respondent	Submission No.	Section number where issues are addressed
Individual	1	2.4.1
Individual	2	2.4.4
Individual	3	2.4.1
Individual	4	2.5.2, 2.7.1
Individual	5	2.4.1
Individual	6	2.4.1, 2.4.3
Individual	7	2.4.1
Individual	8	2.4.4
Individual	9	2.4.4
Individual	10	2.4.11
Individual	11	2.6.1, 2.8.2
Individual	12	2.4.1, 2.4.5, 2.4.12
Individual	13	2.4.1
Individual	14	2.2.1, 2.3.1, 2.4.2, 2.4.3, 2.5.2, 2.8.1, 2.8.2
Hunter Water	15	2.4.6
Individual	16	2.3.1, 2.4.1, 2.4.13
Individual	17	2.4.5
Individual	18	2.4.1
Individual	19	2.7.2
Individual	20	2.3.1, 2.4.2, 2.4.3, 2.5.1, 2.5.2
Individual	21	2.4.1, 2.4.7
Individual	22	2.4.1
Individual	23	2.4.5
Individual	24	2.4.1
Individual	25	2.4.1
Individual	26	2.4.1

Respondent	Submission No.	Section number where issues are addressed
Individual	27	2.4.1
Individual	28	2.4.1, 2.4.8, 2.4.9
Individual	29	2.4.1, 2.4.10, 2.6.1, 2.8.2
Individual	30	2.4.1, 2.4.5
Individual	31	2.4.1
Individual	32	2.4.5

## 2.1 Overview of issues raised during display period

The community made 31 submissions in response to the display of the Review of Environmental Factors, while governmental agencies (Hunter Water) made one submission.

Each submission has been examined individually to understand the issues being raised. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised, and Roads and Maritime's response to these issues, forms the basis of this chapter.

The breakdowns of the submissions are as follows:

- 13 of the respondents provided no objection or support for the proposal (41 per cent)
- 14 of the respondents objected to the proposal (44 per cent)
- Five of the respondents supported the proposal (15 per cent).

No further feedback was received from Lake Macquarie City Council, Newcastle City Council or Subsidence Advisory NSW during the public display period.

One submission was received from Hunter Water regarding the presence of Hunter Water assets at Lot 177 DP1080877 located east of the proposal area and access to this area is to remain unimpeded during construction. This was the only new government agency correspondence received during the public display period.

The main issues raised by the community included:

- The proposal did not consider the current constraints for motorists accessing Kahibah Road from Highfields Parade
- The proposed road widening along City Road would result in safety impacts when entering and leaving private properties
- Pedestrian safety within the proposal area
- Provision and safety for cyclists
- Community consultation during the proposal development

The issue categories have been provided in a similar order to the chapters in the REF.

## 2.2 Statutory and planning framework

### 2.2.1 Proposal determination

#### ***Submission number(s)***

14

#### ***Issue description***

Respondent queried who is responsible for making a decision on which option is selected for the proposal.

#### ***Response***

Roads and Maritime Services is responsible for making the decision on which option is selected for the proposal.

As the proposal is for road infrastructure and is to be carried out by Roads and Maritime, it can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Roads and Maritime is the determining authority for the proposal and an appropriate delegate within Roads and Maritime will be responsible for determining the REF. The REF fulfils Roads and Maritime's obligation under Section 5.5 of the EP&A Act including to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

Issues raised in submissions and the findings of this submissions report will assist Roads and Maritime to determine whether to proceed with the proposal. Should Roads and Maritime determine to proceed, the mitigation measures identified in the REF would be applied to the proposal to minimise impacts on the environment. This Submissions Report is part of the environmental assessment process.

## 2.3 Consultation

### 2.3.1 Community consultation

#### ***Submission number(s)***

14, 16, 20

#### ***Issue description***

Three respondents outlined they had not been notified of the proposal in March 2018 via the letter box drop as outlined in Table 5.1 of the REF.

#### ***Response***

Chapter 5 of the REF outlines the community consultation undertaken by Roads and Maritime as part of the proposal development and the preparation of the REF. Roads and Maritime consulted with the community through a combination of mechanisms in March 2018 including:

- A project update via a media release on the progress of the design and environmental investigations and made available on the project webpage

- A letter box drop was carried out to inform potentially affected residents of utility location works. The letter was issued to potentially affected residents along City Road, Kahibah Road and Highfields Parade.
- Responses to 15 general proposal inquiries.

Further details of community consultation activities are provided in Table 5.1 of the REF.

### ***Issue description***

Residents outlined they were not made aware of the public exhibition period and did not have adequate time to prepare a submission.

### ***Response***

Roads and Maritime met with residents during the preparation of the REF and public exhibition period. Since the public exhibition, Roads and Maritime has also met with residents who raised concerns regarding the concept design and direct impacts to private property.

Roads and Maritime has made the REF available for public display and comment. Issues raised by respondents have been considered as part of design development (see Chapter 3 for proposed changes to the proposal), and additional environmental impact assessment has been carried out to respond to issues raised in submissions (refer to Chapter 3). This Submissions Report summarises issues raised in submissions and how Roads and Maritime has responded to these issues.

The Submissions Report will be publically available once finalised on the Road and Maritime website [www.rms.nsw.gov.au](http://www.rms.nsw.gov.au). A letter box drop will also take place notifying residents within the proposal area the Submissions Report has been published and available to view. Furthermore, all respondents will receive an email directing them to the project webpage to view the published report.

As part of future planned consultation, notification would be sent via letter box drop to a number of residents around the proposal a minimum of five working days prior to the commencement of construction of the proposal.

### ***Issue description***

A respondent queried who within Roads and Maritime is responsible for responding to community emails.

### ***Response***

The project website outlines for further information about the project please contact the Roads and Maritime Project Development Manager. All community responses have been responded to during the development of the REF or as part of this Response to Submissions report.

## **Traffic and transport**

### **2.4.1 Safe access from Highfields Parade into Kahibah Road**

#### ***Submission number(s)***

1, 3, 5, 6, 7, 12, 13, 18, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31

### ***Issue description***

Of the 18 submissions on this issue, 16 respondents were concerned the proposal would make it more difficult and dangerous to turn right from Highfields Parade into Kahibah Road due to the constant flow of traffic from the new left turn lane.

### ***Response***

The proposal would involve the installation of a designated left turn lane into Kahibah Road to improve traffic efficiencies for motorists travelling westbound on City Road. The designated left turn lane would not allow the free flow of vehicles into Kahibah Road as this movement would be controlled by the red arrow signal in accordance with the current traffic signal phasing.

To install the additional right turn lane out of Kahibah Road the existing raised concrete median would be moved closer to Highfields Parade, which would reduce the crossing distance for motorists exiting Highfields Parade and turning onto Kahibah Road.

As a result of community feedback and submissions, Roads and Maritime is proposing to modify the current concept design to maintain the separation distance between motorists turning left from City Road and motorists exiting Highfields Parade. Under the design proposed in the REF, the installation of the designated left turn lane into Kahibah Road would result in a reduced separation distance from the current intersection layout. Roads and Maritime is now proposing to widen the existing median in Highfields Parade and modifying the existing kerb to move the exit of Highfields Parade further south and therefore maintain current separation distances.

### ***Issue description***

A respondent raised concerns the proposal did not consider an increase in traffic leading into Kahibah Road.

### ***Response***

The installation of the designated left turn lane would not increase traffic volumes leading into Kahibah Road. Traffic growth was considered in the development of the proposal and is expected to remain at pre-existing growth rates.

### ***Issue description***

One respondent raised concerns motorists currently queue across the keep clear area on Kahibah Road, which makes it difficult for motorists to turn right from Highfields Parade onto Kahibah Road.

### ***Response***

It is an offence for motorists to queue in keep clear areas, which are clearly marked in Kahibah Road. The proposal is in accordance with road safety best practice design guidelines and has assumed that motorists will obey the NSW road rules and regulations. The proposal would not impact this existing condition.

Kahibah Road is a local road managed by Lake Macquarie City Council and as a result the keep clear area within Kahibah Road is the responsibility of Lake Macquarie City Council.

### ***Issue description***

Respondents raised concerns over the speed at which motorists currently turn left into Kahibah Road.

### ***Response***

The existing raised concrete median on Kahibah Road will be moved to the east of its current location, closer to Highfields Parade. This would narrow the width of the entry into Kahibah Road and motorists would need to slow down to turn safely.

### ***Issue description***

A respondent raised concern it is difficult to turn left out of Highfields Parade due to traffic volumes entering Kahibah Road, the angle of the existing Kahibah Road/Highfields Parade intersection and the poor visibility due to the presence of trees and road signage.

### ***Response***

Traffic volumes will not increase on Kahibah Road as a result of the proposal. The proposal allows motorists to stop square on at the give way line and negotiate the intersection; the motorist decides the angle at which this turn is made. Trimming of tree branches in the community parkland will take place, however no trees are proposed to be removed at the Kahibah Road/City Road corner. The trees and roadside signage are located within the Lake Macquarie City LGA with council responsible for management.

### ***Issue description***

Respondents pointed out Roads and Maritime had previously proposed a left turn lane from City Road into Kahibah Road, saying the previous proposal was not approved due to safety concerns (as highlighted above) from the community.

### ***Response***

The previously proposed left turn lane from City Road into Kahibah Road was *not* rejected due to safety concerns. The previous proposal was dismissed due to the complexity of the proposal with respect to storm water drainage, utilities and pavement. This meant the proposal was deferred to be completed under a full intersection upgrade (being this proposal) rather than create disruption to the community on two separate occasions.

## **2.4.2 Safe entry and exit to private property**

### ***Submission number(s)***

14, 20

### ***Issue description***

Respondents on City Road raised concerns about the proposed reduction in the width of the Council verge outside their properties.

### ***Response***

The proposal will reduce the width of the Council verge for some residents along City Road to accommodate the extension to the right turn lane into Northcott Drive.

Roads and Maritime has agreed to the adjustment of existing driveways for affected properties to manage impacts of the reduced verge width.

### ***Issue description***

Respondents raised concerns Roads and Maritime did not fully consider impacts to property access.

### ***Response***

Roads and Maritime assessed impacts to property access to all properties within the proposal area. A more detailed assessment of the impacts to property access has been considered in Chapter 4 of this Submissions Report.

Residents within the area of road widening will be consulted during the Detailed Design phase of the project. Residents will be offered the opportunity to meet with Roads and Maritime on site to explain how they enter and leave their property currently and advise of any issues they foresee under the proposal.

Roads and Maritime has committed to working with property owners to ensure a suitable and safe level of access is provided to residents impacted by the widening of City Road.

### 2.4.3 Road widening

#### ***Submission number(s)***

6, 14, 20

#### ***Issue description***

A respondent sought clarification of the extent of the road widening in Kahibah Road under the proposal.

#### ***Response***

The proposed road widening would be from Highfields Parade to the driveway of 6 Kahibah Road for a distance of about 55 metres.

The extent of road widening is shown in the figures provided in Chapter 3 of the REF and in the Concept Design plans provided in Appendix C in the REF.

#### ***Issue description***

Respondents sought clarification of the extent of the road widening along City Road under the proposal.

#### ***Response***

The proposed road widening along City Road would be from 23 City Road to 35a City Road for a distance of about 115 metres.

Widening of City Road at the intersection with Northcott Drive will also occur for a distance of about 40 metres to allow for a dedicated left-hand turn lane.

The extent of road widening is shown in the figures provided in Chapter 3 of the REF and in the Concept Design plans provided in Appendix C in the REF.

### 2.4.4 Provision and safety for cyclists

#### ***Submission number(s)***

2, 8, 9

#### ***Issue description***

Respondents raised concerns the proposal did not consider access for, or safety of, cyclists within the proposal area.

#### ***Response***

Roads and Maritime has considered the provision of cyclist access within the proposal area. It was not taken forward by the proposed design given there are existing, safer cycle ways connecting the LGAs of Newcastle and Lake Macquarie. The objective of the proposal is to address safety and efficiency for motorists at two known pinch point intersections, being City Road/Kahibah Road and City Road/Northcott Drive.



Newcastle City Council has developed a cycle ways map (<http://www.newcastle.nsw.gov.au/OnYourBike/Find-Your-Path>) which identifies existing cycle ways, recommended connecting routes and proposed future works for the whole Newcastle local government area (LGA). The Newcastle Cycling Strategy and Action Plan is a 'live' document. Suggestions can be made to City of Newcastle at any time for improvements to the cycling network. Review of the Newcastle Cycling Strategy and Action Plan (adopted by the elected Council in 2012) is to be initiated in 2019. As part of this process, public consultation will be undertaken and a revised program of works developed for endorsement by the elected Council.

Lake Macquarie City Council has developed a shared pathway guide that identifies shared pathways, cycle ways and location maps within the Lake Macquarie LGA (<https://www.lakemac.com.au/recreation/cycleways>).

The Newcastle cycle ways map recommends cyclists travelling from Belmont/Swansea on the Fernleigh Track to exit on Faul Street and use a small portion of City Road (outside of the proposal area) before either continuing on Scenic Drive or Hatfield Street into Newcastle. Similarly, the Lake Macquarie shared pathway guide also does not recommend the use of the proposal area for cycling given the lack of separated pathways.

## 2.4.5 Pedestrian safety

### **Submission number(s)**

12, 17, 23, 30

### **Issue description**

Respondents raised concerns regarding the lack of safe pedestrian crossings within the proposal area and pedestrian safety adjacent to the proposal area (leading down Northcott Drive).

### **Response**

Two signalised pedestrian crossings are located at the intersection of City Road and Kahibah Road, and one signalised crossing is located at the intersection of City Road and Northcott Drive.

The proposal would involve the provision of a new pedestrian crossing across Northcott Drive and would upgrade the existing pedestrian crossing across City Road (near Northcott Drive) to meet Disability Standards for Accessible Public Transport 2002 (DSAPT) (refer to Figure 1.2).

For pedestrians wanting to travel down Northcott Drive from City Road, it is recommended they use the new pedestrian crossing facility to cross onto the western side of Northcott Drive and continue down the ramp which will join to the existing footpath. This footpath extends down Northcott Drive and connects with Westfield Kotara and Park Avenue, Kotara.

### **Issue description**

A respondent raised concerns the proposed pedestrian crossing in the service road is located too close to City Road.

### **Response**

The proposed pedestrian crossing in the service road will be relocated further south to create increased separation distance from vehicles exiting at City Road to Highfields Parade.

A combined speed bump and pedestrian crossing in the service road will be constructed to slow vehicles exiting at City Road into the service road. Street lighting will be provided to improve pedestrian safety.

### ***Issue description***

A respondent raised concern walking across City Road at the pedestrian crossing near Kahibah Road is unsafe due to the time provided by the signals.

### ***Response***

Currently the crossing time is 30 seconds at the pedestrian crossing on City Road near Kahibah Road. The design standard advises that a typical pedestrian walking speed is 1.2 metres per second and the crossing length is 25m, hence 30 seconds is required.

Pedestrians are not expected to complete their crossing on the solid green walk signal. The flashing red walk signal is referred to as the clearance period and is when most pedestrians will finish their crossing. Vehicles are required to give way to pedestrians at all times.

Under the proposal, there will be longer green time for pedestrians crossing from the north towards Kahibah Road to account for the longer walking distance to the point of conflict, being vehicles turning left out of Kahibah Road.

A detailed description of the proposed changes is provided in Chapter 3.2.

### ***Issue description***

A respondent raised concerns that a footpath from Ellerslie Road to the traffic signals on City Road near Kahibah Road has been closed to the public for several months. The closure forces pedestrians to walk along the narrow footpath towards the traffic signals at City Road.

### ***Response***

The footpaths in the proposal area are managed by both Newcastle City Council and Lake Macquarie City Council. Roads and Maritime has contacted both Newcastle City Council and Lake Macquarie City and neither council are aware of the footpath closure. The closure of any footpaths is under the jurisdiction of either Council and any inquires in relation to footpaths should be taken to the respective Council directly.

### ***Issue description***

A respondent raised concerns that access along Kahibah Road is blocked by overgrown trees which forces pedestrians to use Kahibah Road rather than the footpath.

### ***Response***

Kahibah Road is a local road managed by Lake Macquarie City Council. Roads and Maritime has contacted Lake Macquarie City Council representatives who have indicated they will inspect any overhanging vegetation along Kahibah Road.

## **2.4.6 Access to Hunter Water assets**

### ***Submission number(s)***

15

### ***Issue description***

Respondent identified Hunter Water assets are located at lot 177 DP1080877 which is east of the proposal area. Hunter Water has advised that access to this area is to remain unrestricted at all times during construction.

### ***Response***

Roads and Maritime has consulted with the public utility authorities as part of the development of the concept design to identify and locate existing utilities and incorporate utility authority requirements for relocations and/or adjustments.

The REF included a mitigation measure to confirm the exact location of existing utilities following consultation with the affected utility owners and Hunter Water has been advised of the proposal.

The construction of the proposal would not impact existing Hunter Water infrastructure at lot 177 DP1080877 and access to Hunter Water assets within this area would remain unrestricted during construction.

## **2.4.7 Relocation of bus stop**

### ***Submission number(s)***

21

### ***Issue description***

Respondent indicated concerns with the proposed bus stop relocation on City Road.

### ***Response***

The existing bus stop (228959) located on the southern side of City Road near Kahibah Road will *not* be removed as part of the proposal. The bus stop will remain in the current location and will be shifted back further away from the road corridor to allow for the installation of the designated left turn lane into Kahibah Road.

The relocation of the bus stop will not change current traffic volumes turning left into Kahibah Road and would not inconvenience public transport users.

## **2.4.8 Proposed designated left turn lane into Northcott Drive**

### ***Submission number(s)***

28

### ***Issue description***

Respondent raised concerns the installation of a designated left turn lane into Northcott Drive from City Road would impact residents located on City Road east of Northcott Drive entering/leaving their property.

### ***Response***

The proposal would not change the way in which residents access their properties from the eastbound lane of City Road. The installation of a designated left turning lane on City Road would reduce the number of vehicles changing lanes at speed, as vehicles planning to turn left at Brunner Road would likely be travelling in the left lane and would not be required to quickly change lanes after the Northcott Drive and City Road intersection.

### ***Issue description***

The existing left lane would no longer predominantly be used to turn left into Northcott Drive. The respondent suggested the installation of a 'bus only lane' in the existing left lane would provide a buffer for residents entering/leaving their property by reducing their interaction with through traffic.

### ***Response***

The installation of a 'bus only lane' would result in a reduction of vehicle capacity at the City Road/Northcott Drive intersection and would not align with the objectives of the proposal.

Currently motorists travel in the left lane to turn left into Bruncker Road after the City Road/Northcott Drive intersection. The installation of the designated left turn lane into Northcott Drive would not change the number of vehicles utilising the left lane as motorists would still be travelling in this lane as they currently do to turn left into Bruncker Road.

## **2.4.9 Provision of a U-turn in Northcott Drive**

### ***Submission number(s)***

28

### ***Issue description***

Respondent requested consideration of the installation of a U-turn facility in Northcott Drive to allow residents to safely turn around and access their properties.

### ***Response***

The proposal will not result in any changes to the existing access for residents on the northern side of City Road.

Motorists travelling west on City Road and needing to access properties on the northern side of City Road are able to turn left into the service road at Highfields Parade and use the signalised intersection of Kahibah Road/City Road to turn right, return to the east and enter their property.

## **2.4.10 Traffic congestion**

### ***Submission number(s)***

29

### ***Issue description***

Respondent indicated concerns the proposal will result in traffic congestion further east along City Road towards Bruncker Road and Scenic Drive.

### ***Response***

A number of pinch points exist in the Hunter Region and the proposal was developed to address two of the locations identified in the Inner Newcastle Traffic Study within the Hunter Region: City Road and Northcott Drive, Adamstown Heights and City Road and Kahibah Road, Highfields intersections.

Roads and Maritime is currently undertaking planning for the Pacific Highway and Scenic Drive intersection; however, funding will need to be considered against other worthwhile projects.

As well as congestion issues, this project also aims to improve road safety. Safety performance at these locations is poor, with both intersections having a significant number of crashes that meet or exceed the Federal Blackspot crash criteria which is three (3) casualty (fatal or injury) crashes over a five-year period.

Improvements to safety at these sites will result in fewer incidents impacting traffic performance.

The proposal would not result in an increase in traffic volumes on City Road and has been designed to address known pinch points as identified above.

## 2.4.11 Traffic signals

### ***Submission number(s)***

10

### ***Issue description***

Respondent queried the phasing of the traffic signals located on City Road for vehicles heading east and turning right into Kahibah Road. Extending the green light time would enable more vehicles to turn right.

### ***Response***

The proposal will involve the extension of the right turn lane on City Road into Kahibah Road. This would allow more cars to queue in the designated right turn lane and would reduce the number of vehicles waiting in through lanes to enter the right turn lane.

The existing traffic signal phasing will remain, given the extension of the right turn lane would allow more cars to queue, thereby reducing the number of blockages for vehicles heading eastbound.

## 2.4.12 Traffic routes

### ***Submission number(s)***

12

### ***Issue description***

Respondent queried what is being done to encourage motorists to utilise major routes rather than local routes into/out of Newcastle.

### ***Response***

The improvement of travel times along City Road is expected to result in motorists preferring to use City Road to travel into/out of Newcastle.

## 2.4.13 Temporary closure of service road

### ***Submission number(s)***

16

### ***Issue description***

Respondent indicated concern for the lack of safe access into Highfields Parade during construction due to the closure of the service road.

## **Response**

In order to safely implement and utilise the temporary site compound the closure of the service road is required during construction. As a result, there will be impacts associated with residents who currently use the service road to access their property in Highfields Parade and surrounding streets. Access to Highfields Parade via Kahibah Road will be maintained during the entire construction period. Where possible the impacts of the temporary closure of the service road will be minimised through construction staging e.g. the service road may remain open during certain construction activities.

As part of future planned consultation, notification would be sent via letter box drop to residents around the proposal a minimum of five working days prior to the commencement of construction of the proposal. This notification would provide further details regarding construction activities, including any potential access impacts such as the temporary closure of the service road.

## 2.4.14 Provision of parking bays

### **Submission number(s)**

14

### **Issue description**

Respondent queried whether the proposal could include formalised, off street parking in the Council verge on City Road.

### **Response**

Newcastle City Council is the responsible authority for works within the verge. Roads and Maritime consulted Newcastle City Council on this submission and Council confirmed formalised parking would not be considered in this location.

## 2.5 Noise and vibration

### 2.5.1 Construction noise

#### **Submission number(s)**

20

#### **Issue description**

Respondent queried the increased noise disturbance during construction.

#### **Response**

A construction and operational noise assessment was completed as part of the REF. The full assessment can be found in Appendix D of the REF and is summarised in Chapter 6.2 of the REF.

The majority of the construction works would occur during standard construction hours being:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Sunday and public holidays: No work.

City Road currently carries more than 5,000 vehicles per hour in the afternoon peak. To minimise traffic impacts certain construction activities would be carried out outside of standard construction hours. This includes night work during the hours of 7pm to 5am, except Thursdays which are 9pm to 5am. Construction activities to be carried out outside of standard construction hours include line marking, asphalt works, lane extensions, widening and traffic signal works.

The construction activity with the highest predicted noise impact during standard hours (daytime period) is predicted to be the bulk earthworks followed by construction of the retaining wall. The number of residents predicted to be highly noise affected (i.e. experience noise levels greater than 75dB (A)<sup>1</sup>) from these activities is shown in Table 6.12 of the REF.

During night work the construction activities with the highest noise impacts would be the asphaltting, pavement milling and re-sheeting and the extension of the right turn lane. The number of residents predicted to be highly noise affected (i.e. experience noise levels greater than 65dB (A)) from these activities are shown in Table 6.13 of the REF.

Where this is the case, opportunities to minimise impacts on highly noise affected receivers, as outlined in Table 6.14 and Chapter 6.2.5 of the REF, will be considered in consultation with affected receivers. It should be noted that construction noise scenarios were developed using the 'worst case' scenario, which would conservatively over-estimate the predicted noise levels.

Where there are complaints about noise from an identified work activity, the work activity will be reviewed, and where feasible and reasonable, additional control measures implemented. This may include acoustic monitoring to confirm impacts are in line with levels predicted in the REF.

A Noise and Vibration Management Plan (NVMP) will be prepared and implemented as part of the Construction Environmental Management Plan (CEMP). The NVMP will generally follow the approach in the Interim Construction Noise Guideline (ICNG) (DECC, 2009).

All sensitive receivers likely to be affected will be notified at least five working days prior to commencement of any work associated with the activity that may have an adverse noise impact. The notification will provide details of the project, construction period and work hours, contact information for project management staff, complaint and incident reporting, and how to obtain further information.

## 2.5.2 Operational noise

### ***Submission number(s)***

4, 14, 20

### ***Issue description***

A respondent queried whether acoustic treatment would be provided at affected properties.

### ***Response***

The operational noise assessment did not predict a road traffic noise increase over 1.0 (dB (A))<sup>1</sup> at any residence including where the road widening would bring traffic closer to residents. Therefore, no acoustic treatment would be required as part of the proposal.

<sup>1</sup> dB (A) is a frequency weighting devised to attempt to take into account the human response to sound is not equally sensitive to all frequencies



A construction and operational noise assessment was completed as part of the REF. The full assessment can be found in Appendix D of the REF and is summarised in Chapter 6.2 of the REF.

Where an increase in traffic noise of more than 2dB (A) results at any receiver due to the proposal, the Noise Criteria Guideline, Roads and Maritime, 2015 (NCG) requires that existing road criteria be applied. No further mitigation is required where the increase due to the proposal is 2dB (A) or less.

### ***Issue description***

Respondents queried the potential road traffic noise increase due to increased traffic volumes and the road being closer to some properties as a result of road widening.

### ***Response***

The proposal would not modify the speed limit, vertical alignment or traffic volume within the proposal area. The proposal is not expected to result in an increase of road traffic noise of more than 2.0 dB (A) at any receiver. The operational noise assessment predicted minor increases in road traffic noise that is likely to be inaudible at the predicted residents.

## **2.6 Biodiversity**

### **2.6.1 Tree removal**

#### ***Submission number(s)***

11, 29

#### ***Issue description***

Respondents queried the extent of tree removal associated with the proposal.

#### ***Response***

The proposal would require the removal of a number of trees. In total six trees were assessed for removal as part of the proposal. One tree at the traffic signals in front of 19 City Road would be removed. Five trees on City Road at the intersection with Northcott Drive would be removed. Two of these trees have been removed under early work carried out during August 2018 under a separate REF (see Appendix F of the proposal REF).

Roads and Maritime has committed to select suitable species to replant in the area. Roads and Maritime would plant four trees for every large, mature tree removed in a suitable location as identified by Newcastle City Council. This is noted within the REF in Chapter 6.3.

Since the public exhibition of the REF, it has been identified that additional trees would need to be removed to accommodate the proposed widening along City Road. These trees were not assessed for removal in the REF; however they have been assessed in Chapter 4.2 of this response to submissions report.

#### ***Issue description***

Respondents queried the extent of tree removal located in the community parkland area near Kahibah Road.



### **Response**

Minor vegetation trimming would take place to trees within the park on the corner of City Road and Kahibah Road. No removal of trees in the community parkland would occur as part of the proposal.

## 2.7 Landscape character and visual

### 2.7.1 Retaining wall

#### **Submission number(s)**

4

#### **Issue description**

Respondent queried the design elements of the retaining wall on the corner of Northcott Drive and City Road.

#### **Response**

The retaining wall is likely to look consistent with other retaining walls in the area, such as the retaining wall located at Ellerslie Road. Once the proposal is determined, the project will move into detailed design and the structure design will be refined to consider wall finishes and any landscaping in accordance with Roads and Maritime guidelines.

The retaining wall will be located wholly within the road reserve with an easement for public utilities. The current stairs will be removed and replaced with a footpath down Northcott Drive which will tie into the existing footpath.

The concept design plans are available in Appendix C of the REF.

### 2.7.2 Landscaping

#### **Submission number(s)**

19

#### **Issue description**

Respondent requested the consideration of new landscaping on the retaining wall located on Ellerslie Road.

#### **Response**

Consideration of landscaping at the Ellerslie Road retaining wall is beyond the scope of the proposal. The objective of the proposal was to improve safety and traffic efficiency at two intersections identified in the Hunter Pinch Point Study (City Road/Kahibah Road and City Road/Northcott Drive intersections). The current grass and shrubs planted along the top of the Ellerslie Road retaining wall are managed by Newcastle City Council and will remain.

## 2.8 Socio-economic

### 2.8.1 Property value

#### ***Submission number(s)***

11, 14, 29

#### ***Issue description***

Respondent queried if any consideration had been given to how the proposal may impact property value.

#### ***Response***

Roads and Maritime has met with residents where property access will be impacted as a result of the proposal. Roads and Maritime has worked with these residents to identify ways in which access can be maintained or improved such as the widening of driveways or modification of gates.

Additionally, the proposal would not modify the speed limit, vertical alignment or traffic volume within the proposal area. The proposal is not expected to result in an increase of road traffic noise of more than 2.0 dB (A) at any receiver. The operational noise assessment predicted minor increases in road traffic noise that is likely to be inaudible at the predicted residents. In particular, the operational noise assessment did not predict any road traffic noise increase over 1.0 dB (A) at any affected residence including where the road widening would bring traffic closer to residents.

As a result, impacts on property value are not anticipated.

### 2.8.2 Loss of parkland

#### ***Issue description***

Respondent queried how much of the community parkland near Kahibah Road will be lost to accommodate the proposed left turn lane from City Road into Kahibah Road.

#### ***Response***

A 3.5 metre wide strip of the park, about 200 square metres in area, immediately adjacent to City Rd (Pacific Highway) would be required to construct the left turn lane into Kahibah Road.

## 3. Changes to the proposal

### 3.1 Design changes at the Kahibah Road and Highfields Parade intersection

A number of submissions raised concerns the proposed installation of a designated left turn lane into Kahibah Road would decrease the separation distance between vehicles turning into Kahibah Road from City Road and vehicles turning out of Highfields Parade into Kahibah Road.

In order to maintain the current separation distance, Roads and Maritime is proposing to shift the exit out of Highfields Parade further south by widening the median in Highfields Parade and modifying the existing kerb on the southern side of Highfields Parade. An indicative revised layout design is provided in Figure 3.1.

The design changes would be located within the proposal area and would maintain the current separation distance between motorists turning left off City Road and the Kahibah Road/Highfields Parade intersection. Being within the proposal area no further environmental assessment of the design changes is required.

### 3.2 Design changes to pedestrian facilities within the proposal area

In response to the submissions received about pedestrian facilities within the existing community parkland near Kahibah Road, Roads and Maritime has reviewed the concept design in order to address safety concerns. The proposed changes are outlined below and shown in Figure 3.1:

- The proposed footpath in the community parkland will tie into the existing footpath located near the retaining wall (adjacent to the westbound carriageway of City Road) and to the footpath leading up to the Kahibah Road pedestrian signals.
- The proposed pedestrian crossing across the service road will be relocated further south to create greater separation distance from vehicles exiting at City Road into the service road
- To slow vehicles exiting at City Road into the service road a raised pedestrian crossing will be installed. Consistent with installing any raised pedestrian crossing, street lighting will be installed at this location.

No other changes to the proposal are proposed.

### 3.3 Tree removal

In total six trees have been assessed for removal for the proposal. One tree at the traffic signals in front of 19 City Road would be removed. Five trees on City Road at the intersection with Northcott Drive would be removed. Two of these trees have been removed under early work carried out during August 2018 under a separate REF (refer to Appendix F of the proposal REF).

Roads and Maritime has since identified the need for additional vegetation clearing in the westbound road reserve of City Road. The proposed road widening along City Road will impact vegetation located outside of the properties at 25 and 29 City Road, Adamstown Heights (refer to Figure 3.2). Tree trimming will be the first consideration to accommodate the road widening. As the proposed kerb line will be located in front of the trees, the roots of the trees are likely to be damaged during construction. In this case, removal may be required.

An assessment of the potential impacts associated with the additional vegetation removal is provided in Chapter 4.2 and 4.3.



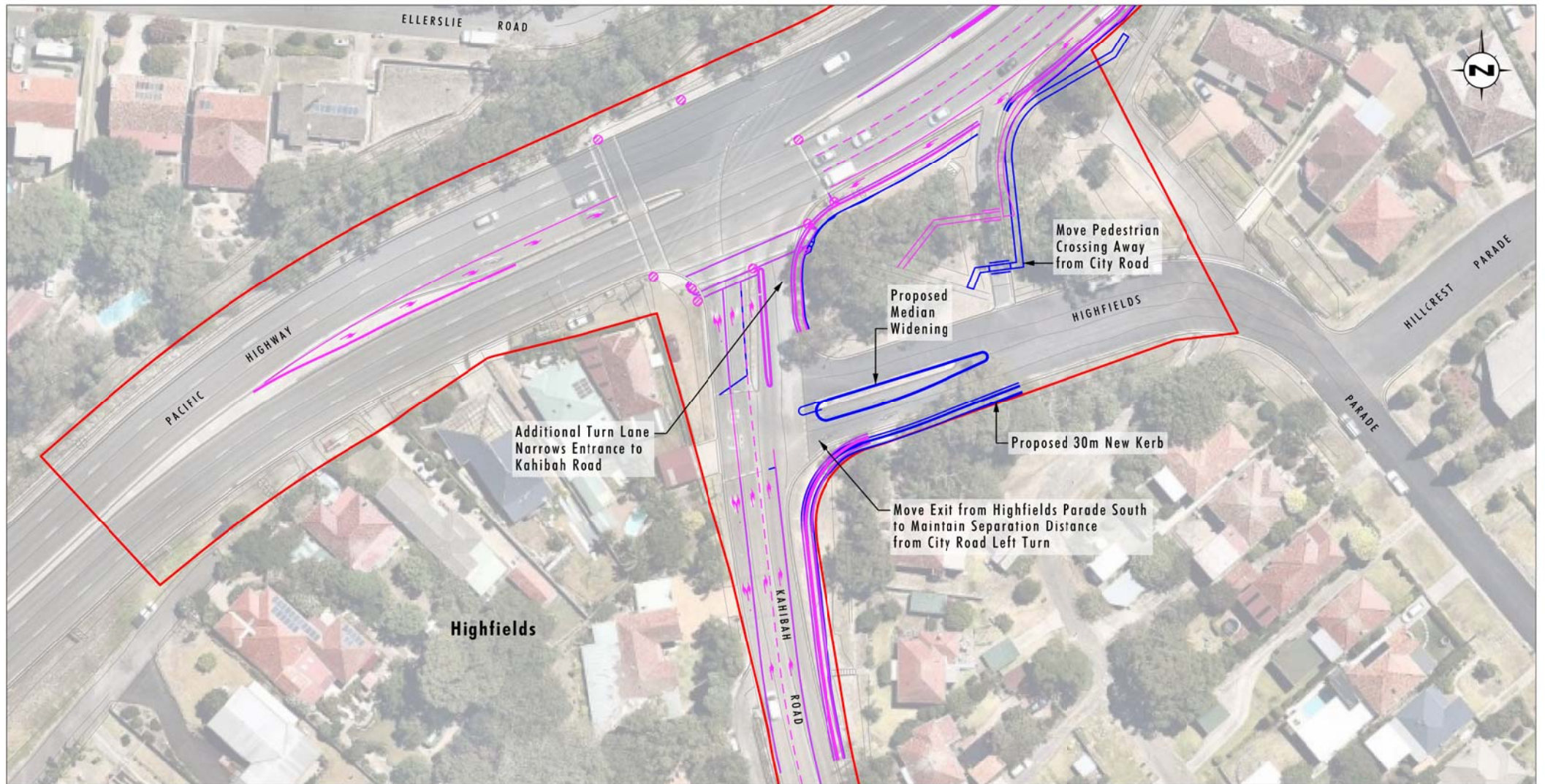


Image Source: Nearmap (Apr 2018)  
Data Source: RMS (2018)

0 10 25 50m  
1:1 000

#### Legend

- ▬ Proposal Area
- ▬ Revised Concept Design
- ▬ Concept Design Presented in the REF

File Name (A4): R05/4263\_059.dgn  
20190517 15.11

FIGURE 3.1

Design Changes to the Intersection  
of Pacific Highway, Kahibah Road  
and Highfields Parade



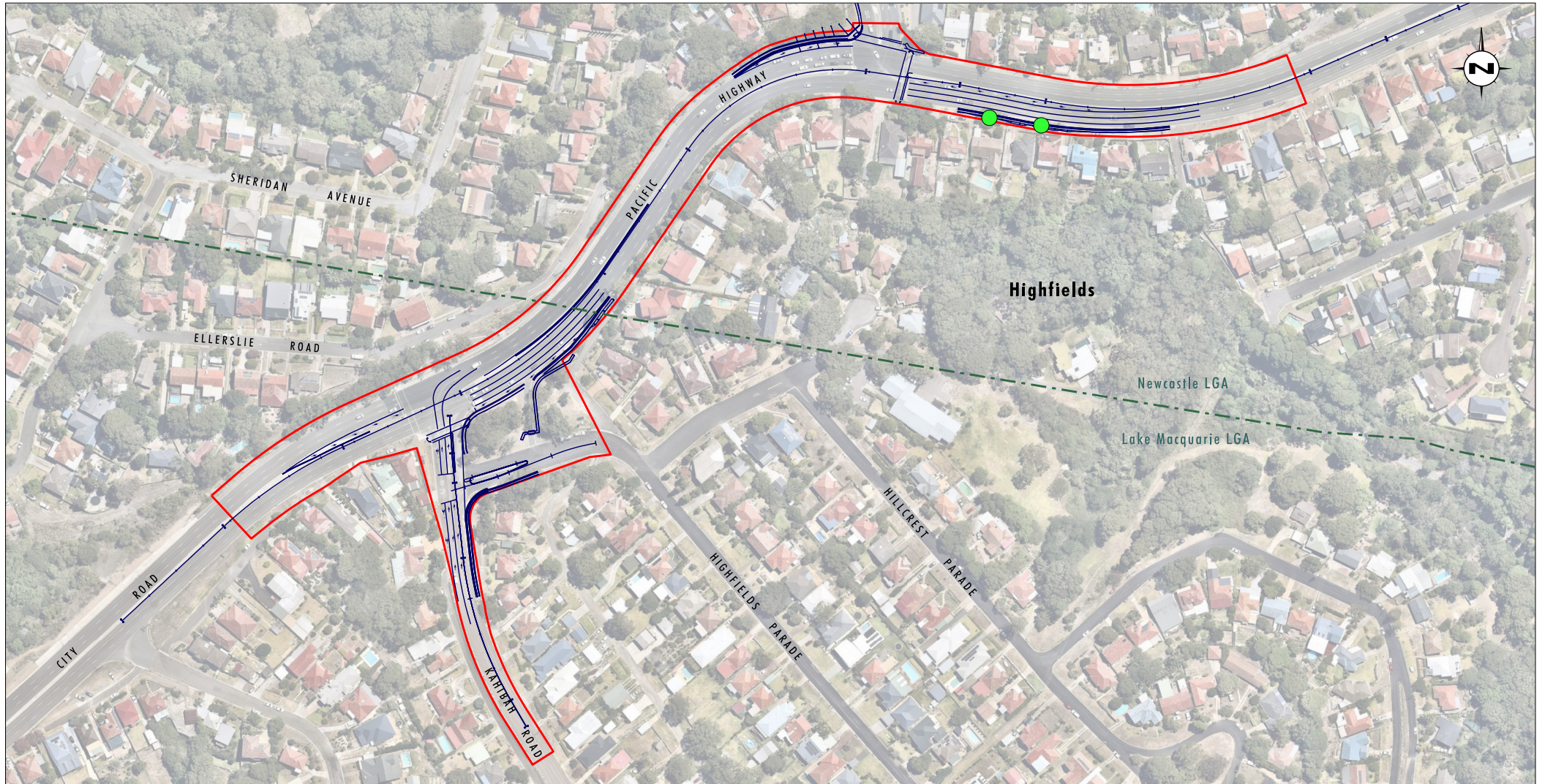


Image Source: Nearmap (Apr 2018)  
Data Source: RMS (2018)

0 50 100 150 m  
1:3 000

### Legend

- ▭ Proposal Area
- Local Government Authority Boundary
- Proposed Concept Design
- Additional Trees to be Removed

File Name (A4): R05/4263\_060.dgn  
20190424 10.35

FIGURE 3.2

**Additional Trees to be  
Removed along City Road**



## 4. Environmental assessment

### 4.1 Property access along City Road

#### 4.1.1 Summary of additional study and consultation

The proposed road widening along City Road would result in permanent access/egress changes to approximately six properties. Roads and Maritime has been consulting potentially affected residents to understand the potential impacts and to provide mitigation where necessary.

#### 4.1.2 Description of existing environment

The existing environment is consistent with Chapter 6.1.1 of the REF.

#### 4.1.3 Potential impacts

Table 4.1 below identifies properties adjacent to the westbound carriageway of City Road which may be affected by the proposal.

Table 4.1: Identified properties with potential access/egress impacts as a result of the proposal

Property ID	Existing constraints and potential impacts
Property A	The existing property gates are located one car length from the road corridor. A reduction in the amount of road verge available may result in the resident not having adequate room to safely park in the existing driveway whilst opening the gate to enter the property.
Property B	In order to safely exit the garage and driveway, the resident utilises the whole of the verge to enter and leave safely. A reduction in the amount of road verge available may not allow the resident to enter/leave the property as per the current arrangement. Reversing into the garage is not an option due to the position of the power pole and this would restrict access to the car boot.
Property C	The resident currently accesses their property from City Road and parks in the car port. The reduction in verge may result in the resident not being able to safely stop their car on the verge to open the gates to the car port.
Property D	The resident has direct access to the car port with no existing gate to open. The proposal would result in a reduction of available road verge to enter/leave the property.
Property E	The resident has direct access to the car port with no existing gate to open. The proposal would result in a reduction of available road verge to enter/leave the property.

Property ID	Existing constraints and potential impacts
Property F	The resident has direct access to the car port with no existing gate to open. The proposal would result in a reduction of available road verge to enter/leave the property.

Roads and Maritime will consult all affected property owners during detailed design regarding changes to access arrangements. The existing access to all properties would be reinstated, with adjustments as required to suit the new road infrastructure.

#### 4.1.4 Revised safeguards and management measures

Impact	Environmental safeguard	Responsibility	Timing	Reference
Property access/egress	During detailed design, Roads and Maritime will consult affected landowners about changes to property access.	Roads and Maritime	Construction	Additional safeguard

## 4.2 Biodiversity

### 4.2.1 Methodology

An Umwelt Ecologist carried out a site inspection on 1 March 2019. The site inspection focused on identifying any threatened species or communities, and key habitat features with the potential to be impacted as a result of the additional vegetation to be removed.

Government database searches were carried out earlier as part of the REF to identify potential threatened species, populations and ecological communities within a 10 kilometre radius of the proposal area. Databases were reviewed again on 21 January 2019 which confirmed no new threatened species or community potentially relevant to this proposal had been listed since the previous searches were completed. Updated database searches included:

- The DoEE EPBC Act Protected Matters Search Tool (DoEE 2018)
- The Office of Environment and Heritage (OEH) BioNet NSW Atlas of Wildlife for BC Act-listed threatened flora, fauna and ecological communities (OEH 2018)
- The Department of Primary Industries (DPI) NSW WeedWise declared weeds database.

### 4.2.2 Summary of additional study and consultation

The additional area of vegetation (refer to Figure 3.2) to be removed includes planted exotic understorey species, two stiff bottlebrush (*Callistemon rigidus*) shrubs and two mature jacaranda trees (*Jacaranda*



*mimosifolia*) (Plates 4-1, 4-2, 4-3). A five-part test under the *Biodiversity Conservation Act 2016* (BC Act) (Appendix 2) was prepared to assess whether this change to the proposal would significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act. No Matters of National Environmental Significance listed under the Commonwealth EPBC Act are considered to be impacted by the proposed change and therefore an Assessment of Significance in accordance with the Significant Impact Guidelines 1.1 (DoE 2013) is not required.



Plate 4-1 Vegetation outside 25 City Road, Adamstown Heights



Plate 4-2 Vegetation outside 29 City Road, Adamstown Heights



Plate 4-3 Vegetation outside 29 City Road, Adamstown Heights

### 4.2.3 Description of existing environment

The existing environment is consistent with Chapter 6.3.2 of the REF.

### 4.2.4 Potential impacts

The removal of vegetation associated with the proposal is considered to be minor given the extensive vegetation clearing that has already taken place within the proposal area. The proposal would not impact the habitat or viability of any species, including any threatened flora or fauna species. The proposal would not impact any threatened ecological communities and the vegetation likely to be cleared does not form critical habitats or wildlife corridors.

The proposal is not expected to have an impact on biodiversity within the proposal area once operational.

The assessment of significance concluded that the proposed change would not significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act and therefore a Species Impact Statement is not required. The proposed change is consistent with the impact as assessed in the REF and no further environmental assessments are required.

Newcastle City Council has requested compensatory tree planting for the loss of any mature trees along City Road within the Newcastle LGA. Roads and Maritime would continue to consult with Newcastle City Council regarding a suitable area for compensatory planting. Roads and Maritime would also consult with the residents at Property D and F at City Road regarding the additional vegetation removal required for the proposal.

### 4.2.5 Revised safeguards and management measures

Impact	Environmental safeguard	Responsibility	Timing	Reference
Biodiversity	During detailed design, Roads and Maritime will consult affected landowners should full removal of the vegetation be required.	Roads and Maritime	Pre-construction	Additional safeguard

## 4.3 Landscape character and visual

### 4.3.1 Summary of additional study and consultation

As outlined in Section 4.2.3, the additional area of vegetation (refer to Figure 3.2) to be removed includes planted exotic understorey species, two stiff bottlebrush (*Callistemon rigidus*) shrubs and two mature jacaranda trees (*Jacaranda mimosifolia*) (Plates 4-1, 4-2, 4-3).

The vegetation located in the verge adjacent Property F provides some existing visual screening from the residential property to the road corridor and as such an assessment of visual impacts associated with the vegetation removal is provided below.

## 4.3.2 Description of existing environment

The existing environment is consistent with Chapter 6.8.1 of the REF.

## 4.3.3 Potential impacts

Property F currently has a low brick fence and the vegetation in the verge currently provides some visual screen for the residents from the road corridor. The residents at Property F currently experience an obscured view of the road corridor which is partly screened by the presence of the vegetation in the road verge. The removal of the vegetation would result in an increase of visual impact for the residents at Property F as they would experience a direct line of sight to the road corridor.

The removal of vegetation will result in some visual impacts through increased views to the road corridor. However, residents may experience lighting disturbance from vehicle headlights which may have previously been shielded by the vegetation proposed for removal. Roads and Maritime would consult with the affected residents to identify opportunities for compensatory planting to reduce visual impacts where possible.

#### 4.3.4 Revised safeguards and management measures

Impact	Environmental safeguard	Responsibility	Timing	Reference
Landscape character and visual	During detailed design, Roads and Maritime would consult with the affected residents to identify opportunities for compensatory planting to reduce visual impacts.	Roads and Maritime	Pre-construction	Additional safeguard



## 5. Environmental management

The REF for the City Road Upgrade, Northcott Drive and Kahibah Road proposal identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (Chapter 6 of the review of environmental factors).

After consideration of the issues raised in the public submissions and changes to the proposal, the safeguard and management measures have been revised. Amended/additional mitigation measures include:

- During detailed design, Roads and Maritime will consult affected landowners about changes to property access.

Should the proposal proceed, environmental management will be guided by the framework and measures outlined below.

### 5.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified in order to minimise adverse environmental impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these management measures would be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Construction Environmental Management Plan (CEMP) will be prepared to describe safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP will be prepared prior to construction of the proposal and must be reviewed and certified by environment staff, Hunter Region, prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements. The CEMP would be developed in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System), QA Specification G38 – Soil and Water Management (Soil and Water Plan), QA Specification G40 – Clearing and Grubbing and QA Specification G10 – Traffic Management.

### 5.2 Summary of safeguards and management measures

The REF for the City Road Upgrade, Northcott Drive and Kahibah Road identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

After consideration of the issues raised in the public submissions, the environmental management measures for the proposal (refer to Chapter 7 of the REF) have been revised. Should the proposal proceed, the environmental management measures in Table 5.1 will guide the subsequent phases of the proposal. Additional and/or modified environmental safeguards and management measures to those presented in the REF have been underlined.

Table 5.1: Summary of environmental safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN-1	General - minimise environmental impacts during construction	<p>A CEMP will be prepared and submitted for review and endorsement of the Roads and Maritime Environment Manager prior to commencement of the activity.</p> <p>As a minimum, the CEMP will address the following:</p> <ul style="list-style-type: none"> <li>• Any requirements associated with statutory approvals</li> <li>• Details of how the proposal will implement the identified safeguards outlined in the REF</li> <li>• Issue-specific environmental management plans</li> <li>• Roles and responsibilities</li> <li>• Communication requirements</li> <li>• Induction and training requirements</li> <li>• Procedures for monitoring and evaluating environmental performance, and for corrective action</li> <li>• Reporting requirements and record-keeping</li> <li>• Procedures for emergency and incident management</li> <li>• Procedures for audit and review.</li> </ul> <p>The endorsed CEMP will be implemented during the activity.</p>	Contractor / Roads and Maritime Project Manager	Pre-construction / detailed design	Core standard safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN-2	General - notification	All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor / Roads and Maritime Project Manager	Pre-construction	Core standard safeguard
GEN-3	General – environmental awareness	<p>All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings.</p> <p>Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include:</p> <ul style="list-style-type: none"> <li>• Areas of heritage significance</li> <li>• Working in urban areas</li> <li>• Noise management during night works.</li> </ul>	Contractor / Roads and Maritime Project Manager	Pre-construction / detailed design	Core standard safeguard
GEN-4	General – environmental awareness	<p>Standard construction hours:</p> <ul style="list-style-type: none"> <li>• Monday to Friday 7.00 am to 6.00 pm</li> <li>• Saturdays 8.00 am to 1.00 pm</li> <li>• No construction on Sundays or Public Holidays.</li> </ul> <p>Work outside standard construction hours (including those detailed within this REF) will be carried out in accordance with the management and mitigation measures detailed within the NVMP.</p>	Contractor	Construction	Core standard safeguard



No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN-5	General – environmental awareness	The Roads and Maritime Project Manager will notify the Roads and Maritime Environment Manager at least five days before starting the activity. The notification will include a copy of any local community notification.	Contractor	Pre-construction / detailed design	Additional safeguard
<b>Traffic and transport</b>					
TT-1	Traffic and transport	<p>A TMP will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (Roads and Maritime, 2008). The TMP will include:</p> <ul style="list-style-type: none"> <li>• Confirmation of haulage routes</li> <li>• Measures to maintain access to local roads and properties</li> <li>• Site specific traffic control measures (including signage) to manage and regulate traffic movement</li> <li>• Measures to maintain pedestrian / cyclist access</li> <li>• Requirements and methods to consult and inform the local community of impacts on the local road network</li> <li>• Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads</li> <li>• A response plan for any construction traffic incident</li> <li>• Consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic monitoring, review and amendment mechanisms.</li> </ul>	Contractor	Detailed design / Pre-construction	<p>Core standard safeguard</p> <p>Section 4.8 of <i>QA G36 Environment Protection</i></p>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
TT-2	Property access, pre-construction	Access to properties will be maintained during major work. Where that is not feasible or necessary, temporary alternative access arrangements will be provided following consultation with affected landowners and the relevant local road authority.	Contractor	Construction	Additional safeguard
TT-3	Reduced speeds, traffic delays and disruptions during major work	Road users and local communities will be provided with timely, accurate, relevant and accessible information about changed traffic arrangements and delays owing to construction activities.	Roads and Maritime / Contractor	Construction	Additional safeguard
TT-4	Disruptions to public transport, including school bus services	Access for public transport services, including school bus services, will be maintained. The requirements for any temporary changes will be confirmed following consultation with local bus operators and the community.	Roads and Maritime	Construction	Additional safeguard
TT-5	<u>Property access/egress</u>	<u>During detailed design, Roads and Maritime will consult affected landowners about changes to property access.</u>	<u>Roads and Maritime</u>	<u>Construction</u>	<u>Additional safeguard</u>

#### Noise and vibration

N-1	Noise and vibration	<p>A Noise and Vibration Management Plan (NVMP) will be prepared and implemented as part of the CEMP. The NVMP will generally follow the approach in the <i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009) and identify:</p> <ul style="list-style-type: none"> <li>all potential significant noise and vibration generating activities associated with the activity</li> <li>feasible and reasonable mitigation measures to be implemented, taking into account <i>Beyond the Pavement: urban design policy, process and principles</i> (Roads and Maritime, 2014)</li> </ul>	Contractor	Detailed design / pre-construction	Section 4.6 of QA G36 <i>Environment Protection</i>
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No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>a monitoring program to assess performance against relevant noise and vibration criteria</li> <li>arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures</li> <li>contingency measures to be implemented in the event of non-compliance with noise and vibration criteria.</li> </ul>			
N-2	Noise and vibration	<p>All sensitive receivers (e.g. schools, local residents) likely to be affected will be notified at least 7 days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of:</p> <ul style="list-style-type: none"> <li>the project</li> <li>the construction period and construction hours</li> <li>contact information for project management staff</li> <li>complaint and incident reporting</li> <li>how to obtain further information.</li> </ul>	Contractor	Detailed design / pre-construction	CNVG
N-3	Noise and vibration	<p>All employees, contractors and subcontractors are to receive an environmental induction. The induction must include at a minimum:</p> <ul style="list-style-type: none"> <li>all applicable mitigation measures</li> <li>hours of works</li> <li>any limitations on high noise generating activities</li> </ul>	Contractor	Pre-construction	CNVG

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>location of nearest sensitive receivers</li> <li>designated parking areas</li> <li>relevant approval conditions</li> <li>incident procedures.</li> </ul>			
N-4	Noise and vibration	Contractors are to keep noise to a minimum including no shouting or the use of loud stereos / radios on site.	Contractor	Construction	CNVG
N-5	Noise and vibration	No dropping of materials from height, throwing of metal items or slamming of car doors.	Contractor	Construction	CNVG
N-6	Noise and vibration	If required a noise verification program should be carried out for the duration of the works in accordance with the Construction Noise and Vibration Management Plan for the proposal.	Contractor	Construction	CNVG
N-7	Noise and vibration	The noise levels of plant and equipment must have operating Sound Power or Sound Pressure Levels complaint with the criteria in Appendix H of the CNVG.	Contractor	Construction	CNVG
N-8	Noise and vibration	Non-tonal reversing beepers must be fitted and used on all construction vehicles and mobile plant used regularly on site and for any out of hours work.	Contractor	Construction	CNVG
N-9	Noise and vibration	The CEMP and Construction Noise and Vibration Management Plan should be regularly updated to account for any changes in noise and vibration management of the proposal.	Contractor	Construction	CNVG

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N-10	Noise and vibration	Where feasible and reasonable, construction should be carried out during the standard daytime working hours. Work generating high noise and / or vibration should be scheduled during less sensitive time periods.	Contractor	Construction	CNVG
N-11	Noise and vibration	It is recommended that vibratory rollers are not used during the pavement resurfacing on City Road between Northcott Drive and Brunner Road above the Fernleigh Track heritage-protected tunnel. Other vibration generating plant not listed in Table 6.11 of the REF should not be used within the identified safe working distances. If vibratory rollers or other vibration inducing construction sources are required within the safe working distances, the following is recommended: <ul style="list-style-type: none"> <li>a dilapidation survey is undertaken on the tunnel prior to works commencing, and regular inspection of the tunnel throughout the construction activities.</li> </ul>	Contractor	Construction	Additional safeguard
N-12	Noise and vibration	Stationary noise sources should be enclosed or shielded where feasible or reasonable.	Contractor	Construction	Additional safeguard
<b>Biodiversity</b>					
B-1	Biodiversity	A Flora and Fauna Management Plan will be prepared in accordance with <i>Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA Projects</i> (RTA, 2011) and implemented as part of the CEMP. It will include, but not be limited to: <ul style="list-style-type: none"> <li>Plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and revegetation areas</li> </ul>	Contractor	Detailed design / pre-construction	Section 4.8 of QA G36 <i>Environment Protection</i>



No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>Requirements set out in the Landscape Guideline (RTA, 2008)</li> <li>Pre-clearing survey requirements</li> <li>Procedures for unexpected threatened species finds and fauna handling</li> <li>Procedures addressing relevant matters specified in the Policy and Guidelines for fish habitat conservation and management (DPI Fisheries, 2013)</li> <li>Protocols to manage weeds and pathogens.</li> </ul>			
B-2	Biodiversity	Vehicle parking, machinery, construction compounds, material stockpiles and the like, will be located in cleared or disturbed areas, not within the drip-zone of vegetation to be retained.	Contractor	Construction	Additional safeguard
B-3	Biodiversity	All pruning and trimming of trees is to be in accordance with the AS4373-2007 Pruning of Amenity Trees. Pruning of mature trees is carried out by a qualified arborist.	Contractor	Construction	Additional safeguard
B-4	Biodiversity	Consistent with the <i>Biodiversity Guidelines – Protecting and managing biodiversity on RTA projects</i> , and any specific requirements of the approved Flora and Fauna Management Plan, an unexpected finds procedure will be implemented in the event that a threatened species or ecological community that had not been identified and assessed by the REF is unexpectedly encountered during the construction process.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B-5	Biodiversity	Roads and Maritime would continue to consult Newcastle City Council regarding a suitable area for compensatory planting. Roads and Maritime would compensate four trees 45L-100L root ball size for the removal of one mature tree.	Roads and Maritime	Post construction	Additional safeguard
<u>B-6</u>	<u>Biodiversity</u>	<u>During detailed design, Roads and Maritime will consult affected landowners should full removal of the vegetation be required.</u>	<u>Roads and Maritime</u>	<u>Pre-construction</u>	<u>Additional safeguard</u>

### Topography, geology, soils and contamination

S-1	Erosion and sediment	<p>Erosion and sediment control measures are to be implemented and maintained to:</p> <ul style="list-style-type: none"> <li>• Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets</li> <li>• Reduce water velocity and capture sediment on site</li> <li>• Minimise the amount of material transported from site to surrounding pavement surfaces</li> <li>• Divert clean water around the site (in accordance with the Landcom / Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)).</li> </ul>	Contractor	Pre-construction/ construction	Standard safeguard
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No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
S-2	Contaminated land	If contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Roads and Maritime Environment Manager and / or EPA.	Contractor	Detailed design / Pre-construction	Core standard safeguard Section 4.2 of QA <i>G36 Environment Protection</i>
S-3	Accidental spill	A site specific emergency spill plan will be developed, and include spill management measures in accordance with the Roads and Maritime <i>Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Roads and Maritime and EPA officers).	Contractor	Detailed design / Pre-construction	Core standard safeguard Section 4.3 of QA <i>G36 Environment Protection</i>
S-4	Topography	<p>The rehabilitation of disturbed areas will be undertaken progressively as construction stages are completed, and in accordance with:</p> <ul style="list-style-type: none"> <li>• Landcom's Managing Urban Stormwater: Soils and Construction series</li> <li>• RTA Landscape Guideline</li> <li>• Roads and Maritime Guideline for Batter Stabilisation Using Vegetation (draft June 2014).</li> </ul>	Contractor	Detailed design / Pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
<b>Hydrology, water quality and flooding</b>					
WQ-1	Soil and water	A SWMP will be prepared and implemented as part of the CEMP. The SWMP will identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks will be addressed during construction.	Contractor	Detailed design / pre-construction	Section 2.1 of QA G38 Soil and Water Management
WQ-2	Soil and water	A site specific Erosion and Sediment Control Plan/s will be prepared and implemented as part of the SWMP. The SWMP will include arrangements for managing wet weather events, including monitoring of potential high risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.	Contractor	Detailed design / Pre-construction	Section 2.2 of QA G38 Soil and Water Management
WQ-3	Water quality	<p>Consistent with any specific requirements of the approved SWMP, control measures will be implemented to minimise risks associated with erosion and sedimentation and entry of materials to drainage lines and waterways. That will include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>• Sediment management devices, such as fencing, hay bales or sand bags</li> <li>• Measures to divert or capture and filter water prior to discharge, such as drainage channels and first flush and sediment basins</li> <li>• Scour protection and energy dissipaters at locations of high erosion risk</li> <li>• Installation of measures at work entry and exit points to minimise movement of material onto adjoining roads, such as rumble grids or wheel wash bays</li> </ul>	Contractor	Detailed design / Pre-Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>Appropriate location and storage of construction materials, fuels and chemicals, including bunding where appropriate.</li> </ul>			
WQ-4	Water quality	Stockpiles will be designed, established, operated and decommissioned in accordance with the Roads and Maritime Stockpile Site Management Guideline (EMS-TG-10).	Contractor	Construction	Additional safeguard
<b>Aboriginal heritage</b>					
AH-1	Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items will be followed in the event that a known or potential Aboriginal object(s), including skeletal remains, is found during construction. This applies where Roads and Maritime does not have approval to disturb the object(s) or where a specific safeguard for managing the disturbance (apart from the Procedure) is not in place. Work will only recommence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design / Pre-construction	Section 4.9 of QA G36 <i>Environment Protection</i>
<b>Non-Aboriginal heritage</b>					
H-1	Non-Aboriginal heritage	A NAHMP will be prepared and implemented as part of the CEMP. It will provide specific guidance on measures and controls to be implemented to avoid and mitigate impacts to Non-Aboriginal heritage.	Contractor	Detailed design / Pre-construction	Section 4.10 of QA G36 <i>Environment Protection</i>



No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
H-2	Non-Aboriginal heritage	<i>The Standard Management Procedure - Unexpected Heritage Items</i> (Roads and Maritime, 2015) will be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered.  Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design / Pre-construction	Section 4.10 of QA G36 <i>Environment Protection</i>
H-3	Non-Aboriginal heritage	A non-vibratory roller should be used for new pavement overlay works between Northcott Drive and Brunker Road.	Contractor	Construction	Additional safeguard
H-4	Non-Aboriginal heritage	All staff, contractors and sub-consultants should be made aware of the listed New Redhead Estate Coal Company's Railway (Fernleigh Track) and their statutory obligations for heritage under the Heritage Act when working near listed heritage items as part of any site inductions.	Contractor	Pre-construction / construction	Additional safeguard
H-5	Non-Aboriginal heritage	Should the proposal area change or if plant/equipment outlined in the Noise and Vibration Assessment is changed further non-Aboriginal heritage assessment may be required.	Roads and Maritime	Pre-construction / construction	Additional safeguard

#### Landscape character and visual

LC-1	Landscape character and visual	Proposal work sites, including construction areas and supporting facilities (such as storage compounds and offices) will be managed to minimise visual impacts, including appropriate storage of equipment, parking, stockpile screening and arrangements for the storage and removal of rubbish and waste materials.	Contractor	Construction	Additional safeguard
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No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
LC-2	Landscape character and visual	Temporary site lighting will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting.	Contractor	Construction	Additional safeguard
<u>LC-3</u>	<u>Landscape character and visual</u>	<u>During detailed design, Roads and Maritime would consult with the affected residents to identify opportunities for compensatory planting to reduce visual impacts.</u>	<u>Roads and Maritime</u>	<u>Pre-construction</u>	<u>Additional safeguard</u>
<b>Socio-economic, property and land use</b>					
SE-1	Socio-economic	<p>A Communications Plan (CP) would be prepared and implemented to help provide timely and accurate information to the community before construction. The CP would include (as a minimum):</p> <ul style="list-style-type: none"> <li>• Mechanisms to provide details and timing of proposed activities to affected residents, businesses and other key stakeholders including schools and local councils of changed traffic, access and parking conditions</li> <li>• The CP will be prepared in accordance with the Roads and Maritime Community Involvement and Communications Resource Manual.</li> </ul>	Roads and Maritime	Detailed design / pre construction	Standard safeguard
SE-2	Socio-economic	Consultation will be carried out with potentially affected residents before and during work in accordance with Roads and Maritime's Community Involvement and Communications Resource Manual. Consultation will include but not limited to door knocks, newsletters or letter box drops providing information on the proposed works, working hours and a contact name and number for more information or to register complaints.	Contractor	Pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
SE-3	Socio-economic	A complaints handling procedure and register will be included in the CEMP.	Contractor	Pre-construction	Additional safeguard
SE-4	Stakeholder engagement	Roads and Maritime would notify Newcastle and Lake Macquarie City Councils when the REF is on public display.	Roads and Maritime	Public display	Additional safeguard
SE-5	Stakeholder engagement	Roads and Maritime would provide cross sections of City Road (southern side) to assist Newcastle City Council in planning for a shared path in the verge.	Roads and Maritime	Detailed design	Additional safeguard
SE-6	Stakeholder engagement	<p>Flexible pavement would be utilised as part of the road upgrade works and the proposed retaining wall be designed and constructed to accommodate the following subsidence parameters:</p> <ul style="list-style-type: none"> <li>• Maximum Surface Subsidence (m) 0.47</li> <li>• Maximum Tensile Strain (mm/m) 1.9</li> <li>• Maximum Compressive Strain (mm/m) 2.9</li> <li>• Maximum Tilt (mm/m) 8.7</li> <li>• Minimum Radius of Curvature (km) 5.0.</li> </ul>	Roads and Maritime / Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
<b>Other safeguards</b>					
AQ-1	Air quality	<p>An AQMP will be prepared and implemented as part of the CEMP. The AQMP will include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• Potential sources of air pollution</li> <li>• Air quality management objectives consistent with any relevant published EPA and/or OEH guidelines</li> <li>• Mitigation and suppression measures to be implemented</li> <li>• Methods to manage work during strong winds or other adverse weather conditions</li> <li>• A progressive rehabilitation strategy for exposed surfaces.</li> </ul>	Contractor	Detailed design / pre-construction	Section 4.4 of QA G36 <i>Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
W-1	Waste	<p>A WMP will be prepared and implemented as part of the CEMP. The WMP will include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Measures to avoid and minimise waste associated with the proposal</li> <li>• Classification of wastes and management options (re-use, recycle, stockpile, disposal)</li> <li>• Statutory approvals required for managing both on and off-site waste, or application of any relevant resource recovery exemptions</li> <li>• Procedures for storage, transport and disposal</li> <li>• Monitoring, record keeping and reporting, including any documentation management obligations arising from resource recovery exemptions.</li> </ul> <p>The WMP will be prepared taking into account the <i>Environmental Procedure - Management of Wastes on Roads and Maritime Services Land</i> (Roads and Maritime, 2014) and relevant Roads and Maritime Waste Fact Sheets.</p>	Contractor	Detailed design / Pre-construction	Section 4.2 of QA G36 <i>Environment Protection</i>
AF-1	Compound sites (Ancillary Facility)	<p>Before land is used for ancillary construction purposes (compounds, storage, parking, etc.) a pre-construction land assessment will be undertaken to identify the presence of any pre-existing wastes.</p> <p>The assessment will be prepared in accordance with the Roads and Maritime Environmental Procedure - Management of Wastes on Roads and Maritime Services Land. Where the land is privately owned, a copy of the assessment will be provided to the landowner.</p>	Contractor	Pre-construction	Additional Safeguard



No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
U-1	Utilities	<p>Prior to the commencement of works:</p> <ul style="list-style-type: none"> <li>The location of existing utilities and relocation details will be confirmed following consultation with the affected utility owners</li> <li>If the scope or location of proposed utility relocation works falls outside of the assessed proposal scope and footprint, further assessment will be undertaken.</li> </ul>	Contractor	Detailed design / pre-construction	Additional Safeguard
AF-2	Compound sites (Ancillary Facility)	<p>A post-construction land assessment will be carried out for land that was used for ancillary construction purposes (compounds, storage, parking, etc.) to determine the suitability for hand-back to the landowner.</p> <p>The assessment will be prepared in accordance with the Roads and Maritime Environmental Procedure - Management of Wastes on Roads and Maritime Services Land. Where the land is privately owned, a copy of the assessment will be provided to the landowner.</p>	Contractor	Post-construction	Additional Safeguard

## 5.3 Licensing and approvals

No licences or approvals in addition to those identified in the REF will be required as a result of the proposed changes. Licences and approvals required for the proposal as identified in the REF are listed in Table 5.2.

Table 5.2: Summary of licensing and approval required

Instrument	Requirement	Timing
<i>Roads Act 1993</i>	Approval under Section 138 of the <i>Roads Act 1993</i> from the appropriate road authority prior to works on roads or closure of lanes.	Before start of the activity

## 6. References

- City of Newcastle. Find Your Path.  
<https://cityofnewcastle.maps.arcgis.com/apps/webappviewer/index.html?id=3dbb6bedcd1444b9aaabe9cbecc58fd1> - accessed 22 March 2019.
- Department of the Environment and Energy (DoEE) 2018. Protected Matters Search Tool (PMST)  
– accessed January 2019.
- Lake Macquarie City Council 2014. Shared Pathways Guide.  
<https://www.lakemac.com.au/downloads/0235BBCDB4817BD266FF7125106A5875AC7D61A1.pdf>  
- accessed 22 March 2019.
- Office of Environment and Heritage (OEH). 2016. Atlas of NSW Wildlife Database  
– accessed January 2019.


## Appendix 1

Revised design at Highfields Parade/Kahibah Road intersection



THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED  
50mm ON A3 SIZE ORIGINAL



DRAWING FILE LOCATION / NAME K:\cadduser\Engineering Technology\DESIGN PROJECTS\HW10\SF2015-093902 - Northcott Dr & Kahibah Rd intersections\CADD Data\02-Concept\Microstation\Highfields Road\02.dgn						DESIGN LOT CODE XXXXXX		DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING FILE NAME ; FILE NAME						PLOT DATE / TIME 19/01/2016 8:58:05 AM			PLOT BY turnjaa		<div>Transport Roads &amp; Maritime Services</div>			NEWCASTLE CITY COUNCIL HIGHFIELDS PARADE PROJECT DESCRIPTION LINE 1 PROJECT DESCRIPTION LINE 2						A3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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## Appendix 2

### Five Part Test of Significance

An assessment of significance has been conducted for the removal of vegetation outside of 25 and 29 City Road, Adamstown Heights (the proposed change) using the five-part test of significance as per Section 7.3 of the BC Act.

### Five-Part Test of Significance – General Assessment

Matters for Consideration	Comment
<p>a) In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.</p>	<p>The proposed change involves the removal of planted, exotic understorey species, two stiff bottlebrush (<i>Callistemon rigidus</i>) shrubs and two mature jacaranda trees (<i>Jacaranda mimosifolia</i>). These shrubs and trees have been inspected and are not threatened species, nor are they considered to be important habitat for any threatened species. The proposed change is therefore unlikely to have an adverse effect on the life cycle of threatened species such that a viable local population is likely to be placed at risk of extinction.</p>
<p>b) In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:</p> <ul style="list-style-type: none"> <li>• is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or</li> <li>• is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.</li> </ul>	<p>The proposed change involves the removal of planted, exotic understorey species, two stiff bottlebrush (<i>Callistemon rigidus</i>) shrubs and two mature jacaranda trees (<i>Jacaranda mimosifolia</i>) that do not form part of any endangered or critically endangered vegetation communities. The proposed change is therefore not likely to have an adverse effect on the extent of an endangered ecological community or substantially and adversely modify the composition of an endangered ecological community such that its local occurrence is likely to be placed at risk of extinction.</p>
<p>c) In relation to the habitat of a threatened species or ecological community:</p> <ul style="list-style-type: none"> <li>• the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and</li> <li>• whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and</li> <li>• the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.</li> </ul>	<p>The proposed change would impact vegetation within a highly disturbed road reserve that does not form important habitat for a threatened species or ecological community. The proposed change would not result in an area of habitat becoming fragmented or isolated from other areas of habitat. The highly disturbed nature of the proposal area means that the habitat to be removed, modified, fragmented or isolated as a result of the proposed works would not negatively impact the long-term survival of threatened species or ecological communities in the locality.</p>
<p>d) Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).</p>	<p>The proposed change occurs in an urban area that is heavily disturbed. It does not occur within an area of declared outstanding biodiversity value, and is therefore unlikely to have an adverse effect on any such areas (directly or indirectly).</p>
<p>e) Whether the proposed development or activity is part of a key threatening process or is likely to increase the impact of a key threatening process.</p>	<p>The proposed change would not exacerbate the operation of, or increase the impact of key threatening processes operating within the proposal area.</p>

## About this release

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1.0	05/03/10	First issue
1.1	15/02/11	First issue revision – changes to issues numbering
2.0	09/09/11	Minor amendments to ensure consistency with REF procedure implementation version
2.1	05/12/11	Change to Roads and Maritime Services
2.2	09/07/13	Minor updates to safeguards table
2.3	21/08/14	Update logo and report cover. Update titles following restructure. Document made web accessible (WCAG).
3.0	17/03/16	Review and update of procedure. New branding.
3.1	11/04/18	Minor updates to incorporate changes to the EP&A Act. Restructure to merge all environmental assessment and environmental study components into one chapter.
3.2	21/09/18	Updated guidance for preparation of executive summary.
3.3	04/02/18	Additional guidance provided in the executive summary.

Your comments and suggestions to improve this or any of the EIA guidelines may be sent to:

Environmental Policy, Planning and Assessment Environment Branch, Roads and Maritime Services  
Email: [EIAprocedures@rms.nsw.gov.au](mailto:EIAprocedures@rms.nsw.gov.au) Or contact the Senior Environmental Specialist (Planning and Assessment) T: 8588 5726



[rms.nsw.gov.au](https://rms.nsw.gov.au)



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Customer feedback  
Roads and Maritime  
Locked Bag 928,  
North Sydney NSW 2059

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