



Intersection improvements at Pennant Hills Road and North Rocks Road, Carlingford

Community Consultation Report

May 2021

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Executive Summary

This is a report of Transport for NSW's (Transport) consultation with the community and key stakeholders from November to December 2020 on the proposed improvements at the intersection of Pennant Hills Road and North Rocks Road, Carlingford.

A high traffic area with nearly 60,000 vehicles per day, motorists experience congestion, slow travel times and delays when travelling through this intersection.

Transport proposes to increase the capacity of the Pennant Hills Road and North Rocks Road intersection by widening the road, reducing queue lengths and improving safety for all road users.

The NSW Government is funding this proposal as part of its \$450 million Urban Roads Congestion Program, which aims to reduce congestion and improve travel times on Sydney's busiest corridors.

Proposed upgrades

The proposed improvements presented to the community in November 2020 included:

- widening Pennant Hills Road between Woodstock Road and Murray Farm Road, adding an extra through lane in each direction
- widening North Rocks Road to install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south
- removing the left turn slip lane from Pennant Hills Road onto North Rocks Road west, to provide three northbound lanes
- installing a new left turn slip lane from Pennant Hills Road to North Rocks Road heading east
- adding an additional right turn lane for road users travelling eastbound on North Rocks Road and turning right into Pennant Hills Road
- installing a raised median in the centre of Pennant Hills Road between Woodstock Road and Murray Farm Road
- installing a new pedestrian crossing on the southern side of Pennant Hills Road and North Rocks Road intersection
- resurfacing the road and changing signage
- adjusting utilities, street lighting and drainage.

The proposed upgrades will:

- ease congestion and improve travel time for all road users
- improve traffic flow through the intersection
- improve road user and pedestrian safety at the intersection, with a reduction in the number of rear-ends crashes and crashes involving motorists changing lanes.

Consultation

Transport developed the current proposal in response to feedback received from the community in December 2017 about some proposed improvements at the intersection.

Transport's new proposal includes more improvements than originally proposed in 2017. In addition to widening Pennant Hills Road, we now propose to widen North Rocks Road west to include a second right turn lane onto Pennant Hills Road southbound.

We consulted the community about this new proposal from 23 November 2020 to 18 December 2020. During the consultation, 32 people provided 67 comments by email and phone calls.

See **Table 2** for a summary of feedback received and responses provided.

Key feedback on our proposed intersection improvements on Pennant Hills Road and North Rocks Road included:

- justification of the proposal
- property impacts
- pedestrian and residents safety along the Pennant Hills Road
- environmental impacts.

Decision

Transport would like to thank the community and key stakeholders for considering the proposal and taking the time to provide feedback.

After carefully considering the feedback received, along with the proposal's aims and design requirements and further investigations along Pennant Hills Road and North Rocks Road, we have decided to proceed with the proposed intersection improvements to Pennant Hills Road and North Rocks Road in Carlingford, with a few changes.

Changes to the proposal include:

- installing a number of retaining walls along Pennant Hills Road and North Rocks Road where there is a difference in the ground levels – if private properties require a retaining wall, we'll contact property owners to discuss this matter
- permanently removing five unmarked car parking spaces on the northern side of North Rocks Road between Roselea Way and the pedestrian crossing near the St Gerard Majella's Catholic Church
- installing wide footpaths, where possible, that can be upgraded to shared paths in the future by the City of Parramatta council on:
 - the northern side of North Rocks Road between Roselea Way and Pennant Hills Road
 - the eastern side of Pennant Hills Road north between North Rocks Road and the mid-block crossing near Murray Farm Road
 - the southern side of North Rocks Road along a quarter of the block between Pennant Hills Road and Jenkins Road – the widen footpath will run for approximately 130 metres from the intersection
- relocating two bus stops on Pennant Hills Road, bus stop ID 211831 18 metres south and bus stop ID 2118174 150 metres south to be nearer to the Roselea Community Centre.

Next steps

Transport will finalise the Review of Environmental Factors (REF) for the intersection improvements on Pennant Hills Road and North Rocks Road, Carlingford in June 2021.

We will keep the community updated as the project progresses, with work anticipated to begin in late-2022.

We will continue to keep the community updated as this project progresses.

1. Introduction

This is a report of Transport's consultation with the community and key stakeholders on the proposed improvements on Pennant Hills Road and North Rocks Road, Carlingford.

1.1 Background

The Pennant Hills Road at North Rocks Road is identified a pinch point causing traffic congestion. Each day nearly 60,000 vehicles travel through the Pennant Hills Road and North Rocks Road intersection. A high traffic area, motorists experience congestion, slow travel times and delays when travelling through the intersection.

The proposal will increase the capacity of the Pennant Hills Road and North Rocks Road intersection by widening the road, reducing queue lengths and improving safety for all road users.

Our proposal aims to:

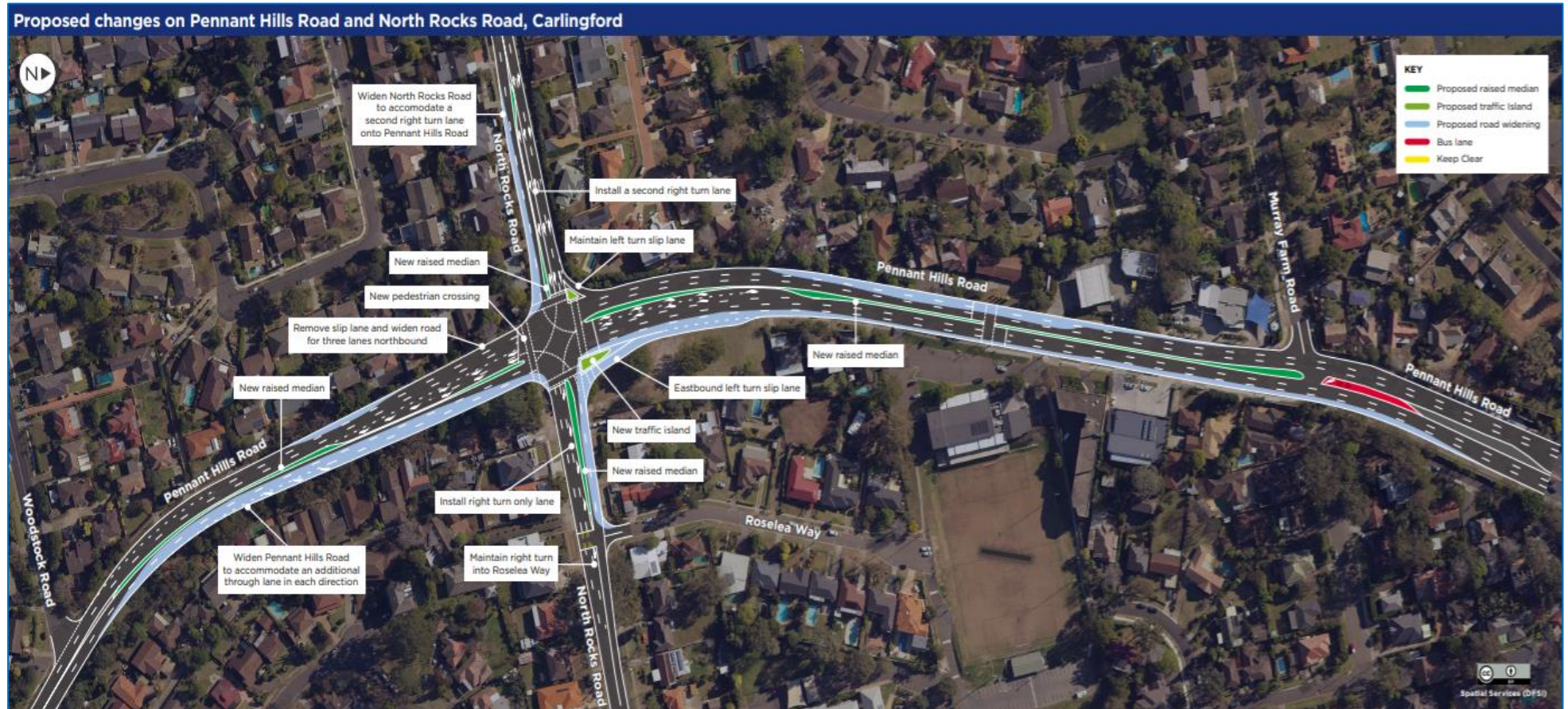
- improve travel time saving for motorists using the intersection
- reduce queue lengths for motorists travelling in both directions on Pennant hills Road
- improve safety at the intersection , with a reduction in the number of rear-ends crashes and crashes involving motorists changing lanes
- reduce traffic delays due to a better flow of traffic for motorists at all points of the intersection.

1.2 Proposed improvements

To ease congestion and improve travel times for all road users, Transport proposes to:

- widen Pennant Hills Road between Woodstock Road and Murray Farm Road, adding an extra through lane in each direction
- widen North Rocks Road to install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south
- remove the left turn slip lane from Pennant Hills Road onto North Rocks Road west, to provide three northbound lanes
- install a new left turn slip lane from Pennant Hills Road to North Rocks Road heading east
- add an additional right turn lane for road users travelling eastbound on North Rocks Road and turning right into Pennant Hills Road
- install a raised median in the centre of Pennant Hills Road between Woodstock Road and Murray Farm Road and on North Rocks Road at the approaches to the Pennant Hills Road intersection
- install a new pedestrian crossing on the southern side of Pennant Hills Road and North Rocks Road intersection.

Map: Intersection improvements on Pennant Hills Road and North Rocks Road, Carlingford as presented to the community



Intersection improvements at Pennant Hills Road and North Rocks Road, Carlingford

2. Consultation approach

Transport engaged with the community and key stakeholders in November 2020 to inform them about the proposal and to provide them with an opportunity to give feedback.

2.1 Consultation objectives

Transport engaged with the community and key stakeholders to understand their concerns and needs, so that their feedback could be considered a part of the decision-making process.

Transport consulted with the community and key stakeholders on the proposal to:

- seek comment, feedback, ideas and suggestions on the proposal, to inform the decisions on the new proposal
- advise directly affected stakeholders of the proposal
- build a database of interested and concerned community members to continue engagement during the project's development and delivery
- advise the community on how they can obtain further information and provide feedback.

2.2 Values

Our values underpin our decisions and behaviours when working with customers, colleagues, stakeholders and partners.

- Customer focus: we place the customer at the centre of everything we do.
- Collaboration: we value each other and create better outcomes by working together.
- Solutions: we deliver sustainable and innovative solutions to NSW's transport needs.
- Integrity: we take responsibility and communicate openly.
- Safety: we prioritise safety for our people and our customers.

2.3 How consultation was done

On 18 November 2020, we distributed 1,574 community updates to local residents and businesses, inviting feedback on the proposal for intersection improvements to Pennant Hills Road and North Rocks Road in Carlingford; see Appendix A. Comments were invited via email, post and phone; see Table 1.

The consultation was open for four weeks and closed on 18 December 2020.

On 4 December 2020, we organised an online community information session via Facebook Live to enable a two-way conversation between the community and project team; see Appendix D.

Table 1: Consultation methodology

Consultation methods	
Channel	Message
Print community update via letterbox	<ul style="list-style-type: none"> Have your say - a community update (see Appendix A) was distributed to 1,574 residences and businesses in the local area on 18 November 2020 (see distribution zone in Appendix B)
Emails to stakeholders	<ul style="list-style-type: none"> Emails including our proposal were sent to the council and the community who has subscribed to our email updates.
Project website	<ul style="list-style-type: none"> Project page on the Transport for NSW (Roads and Maritime) website: https://www.rms.nsw.gov.au/projects/pennant-hills-road-north-rocks-road-carlingford/index.html
Media releases	<ul style="list-style-type: none"> Media release was distributed on 9 November
Social media	<ul style="list-style-type: none"> Geo-targeted Facebook post one ran from 17 December to 30 November 2020 and post two ran from 12 December to 18 December 2020. These posts reached 116,383 people and 94,458 people respectively.
Facebook Live information session	<ul style="list-style-type: none"> Geo-targeted Facebook live event on 4 December 2020 reached 28,128 people.

3 Consultation summary

Transport received 32 submissions from local residents, which included 67 comments via email and phone calls.

Key issues raised included:

- justification of the proposal
- property impacts
- pedestrian and residents safety along the Pennant Hills Road
- environmental impacts.

3.2 Feedback and Transport for NSW responses

Transport has summarised the community feedback received and provided responses in Table 2 below. This report is made available to the public via the project website.

All feedback has been considered to help Transport make decisions about the final scope and delivery of the project.

The table below shows the full range of feedback provided. Every instance of the same feedback has been mentioned once, so, for example, although a majority of people said they support the proposal, this is listed just once.

Not all comments related to this project. Where possible we have sourced responses and passed on this feedback to the relevant teams within Transport.

Table 2: Community feedback and Transport’s response on the proposed intersection improvements

Category	Key issues raised	Transport’s response
Proposal Justification	<p>Why does the median strip stop in front of the Roselea Community Centre and not in front of the nearby businesses on Pennant Hills Road?</p>	<p>As part of our project we are installing a raised central media along Pennant Hills Road. This will create a physical barrier between the two directions of traffic. This is a common practice on roads with multiple lanes in each direction.</p> <p>There is an existing pedestrian crossing on Pennant Hills Road in front of the Community Centre. This crossing won’t be changed by our project. It will help maintain cycling and pedestrian connections in the local area. To provide pedestrians and cyclists a level crossing, we have put a break in the median.</p> <p>Road users wanting to access the businesses on the eastern side of Pennant Hills Road, will no longer be able to turn right across Pennant Hills Road because of the road median. Our project will make Pennant Hills Road three lanes in each direction. We don’t want road users turning right across three lanes of traffic, as it is unsafe.</p> <p>Road users will still be able to access these businesses by a detour. Our proposed detour for road users heading north on Pennant Hills Road is to continue on Pennant Hills Road, travel through the intersection with the M2 Motorway, turn right onto Copeland Road and use the round-about at Cardinal Avenue to turn around and then come back along Copeland Road and Pennant Hills Road.</p>
	<p>A slip lane from Pennant Hills Road southbound onto North Rocks Road is not needed and will increase traffic on North Rocks Road.</p>	<p>Currently, road users travelling south on Pennant Hills Road wanting to turn left onto North Rocks Road have to wait for the traffic light to turn green and give way to pedestrians crossing the road. As road users give way to pedestrians, this can cause traffic to queue which causes congestion on Pennant Hills Road and travel delays.</p> <p>Our proposal creates a slip lane for road users wanting to turn left onto North Rocks Road from Pennant Hills Road when travelling southbound.</p> <p>The traffic modelling for this project shows that the slip lane will reduce queuing on Pennant Hills Road, which will help ease congestion and keep traffic flowing through the intersection.</p> <p>To ensure pedestrian safety, our project will install a zebra crossing across the slip lane. While we are making it easier to access North</p>

<p>Proposal Justification (continued)</p>		<p>Rocks Road from Pennant Hills Road, we don't expect traffic volumes to increase on North Rocks Road because of this change, outside normal growth.</p>
	<p>Why is Transport widening Pennant Hills Road to three lanes when the bus has to stop and block the new lane?</p>	<p>While buses will stop in the kerb-side lane at set down and pick up passengers, two other traffic lanes will remain available for through traffic.</p> <p>Our project, even with buses stopping for short times in the kerb-side lane to pick up and set down passengers, will improve traffic flow along Pennant Hills Road, ease congestion and reduce travel times.</p>
	<p>Creating a right turn lane from North Rocks Road onto Pennant Hills Road north will increase congestion and increase the volume of road users wanting to turn right.</p>	<p>At this intersection road users can turn right from North Rocks Road onto Pennant Hills Road heading north from the right traffic lane which can be used by motorists turning right and travelling straight through the intersection. This can cause delays and congestions.</p> <p>The project will create a dedicated right turn lane from North Rocks Road onto Pennant Hills Road northbound. This will give road users a place to wait before turning right, without queuing in general traffic lanes and blocking other traffic.</p> <p>Road users travelling through the intersection will be able to use the middle lane and kerbside lane. Motorists turning left can use the kerbside lane.</p> <p>The project will also change the phasing of the traffic lights, which will allow more road users to turn right.</p> <p>These changes will help improve traffic flow through the intersection, ease congestion and reduce travel times.</p> <p>We don't expect these change to increase traffic volumes or demand at this intersection, outside of normal growth.</p>
	<p>Removing the left turn slip lane from Pennant Hills Road onto North Rocks Road heading west would worsen the congestion.</p>	<p>Our proposal removes the left turn slip lane from Pennant Hills Road onto North Rocks Road heading west. Road users will still be able to turn left from Pennant Hills Road onto North Rocks Road from the kerb-side lane, however, they will need to wait for the green light to do so.</p> <p>This change is necessary to enable us to create three northbound lanes through the intersection. If we were to maintain the slip lane and create three northbound lanes through the intersection, our</p>

<p>Proposal Justification (continued)</p>		<p>project would impact a larger area and more properties.</p> <p>Moreover, we have investigated the impact of this change using existing traffic data and modelling. Our data and modelling shows that the volume of road users turning left from Pennant Hills Road onto North Rocks Road heading west is small and that overall benefits gained from having three northbound lanes through the intersection outweigh the negative impact of removing the slip lane.</p>
	<p>Add a slip lane near Carlingford High School.</p>	<p>Our proposal includes widening Pennant Hills Road to add a third through lane in each direction and a slip lane from Pennant Hills Road onto North Rocks Road heading east. This change will allow motorists to turn left from Pennant Hills Road onto North Rocks Road at any time, as long as it is safe.</p> <p>The slip lane will also provide a dedicated space for turning vehicles to wait till they can turn safely. This will mean vehicles wanting to turn left won't be waiting in the through traffic lanes, stopping other motorist from moving through the intersection.</p> <p>This slip lane will help ease congestion and improve traffic flow and travel times for road users.</p>
	<p>Add an additional lane on North Rocks Road to turn right toward M2.</p>	<p>Our proposal includes widening North Rocks Road to add a dedicated right turn lane from North Rocks Road onto Pennant Hills Road heading towards the M2.</p> <p>The new right turn lane will give turning traffic a dedicated space to queue while waiting for a green arrow to turn on. This will mean they won't be waiting in the other traffic lanes, stopping other motorist from moving through the intersection.</p> <p>Our proposal includes two other traffic lanes at the intersection. This design will mean more motorists can travel through the intersection on a green light.</p> <p>Moreover, giving right turning traffic a dedicate place to queue to wait for the green light will reduce the risk of rear-end crashes at the intersection. Reducing the risk of crashes improves safety.</p> <p>This additional lane will also help ease congestion and improve travel times, traffic flow and safety.</p>
	<p>The right turn lane from North Rocks Road onto Pennant</p>	<p>Thank you for your feedback. As part of our planning process we undertook a number of investigations, including analysis of the traffic data</p>

<p>Proposal Justification (continued)</p>	<p>Hills Road northbound is not needed 24 hours a day.</p>	<p>including traffic counts, vehicle type, traffic movements etc. These investigations showed us there was a need for a permanent right turn lane from North Rocks Road onto Pennant Hills Road northbound.</p> <p>Our proposed intersection improvements include widening North Rocks Road to add a dedicated right turn lane from North Rocks Road onto Pennant Hills Road northbound.</p> <p>The new right turn lane will give turning traffic a dedicated space to queue while waiting for a green arrow to turn on. This will mean they won't be waiting in the other traffic lanes, stopping other motorist from moving through the intersection. Our proposal will have two other traffic lanes at the intersection. This design will mean more motorists can travel through the intersection on a green light.</p> <p>Moreover, giving right turning traffic a dedicate place to queue to wait for the green light will reduce the risk of rear-end crashes at the intersection. Reducing the risk of crashes improves safety. It also means less delays on the road and congestion.</p>
	<p>Traffic jams on Pennant Hills Road are due to lights near the M2 and further north.</p>	<p>The Pennant Hills Road and North Rocks Road intersection has been identified as experiencing significant traffic congestion due to high traffic volumes travelling through the intersection and the intersection no longer having the best configuration for the traffic.</p> <p>Our proposed intersection upgrade will ease congestion and improve travel times for all road users, traffic flow through the intersection and safety at the intersection.</p> <p>We would do this by:</p> <ul style="list-style-type: none"> • widening Pennant Hills Road between Woodstock Avenue and Murray Farm road, adding an extra through lane in each direction • widening North Rocks Road west to install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south • removing the left turn slip lane from Pennant Hills Road onto North Rocks Road west, to enable three northbound lanes through the intersection • installing a new left turn slip lane from Pennant Hills Road to North Rocks Road heading east

<p>Proposal Justification (continued)</p>		<ul style="list-style-type: none"> • widening North Rocks Road to add a right turn lane for road users turning right into Pennant Hills Road heading north • installing a raised median in the centre of Pennant Hills Road between Woodstock Road and Murray Farm Road • installing a new signalised pedestrian crossing on the southern side of Pennant Hills Road and North Rocks intersection. <p>Traffic lights in NSW are controlled by the Sydney Coordinated Adaptive Traffic System (SCATS), which allocates the length of green time based on real time traffic flow. Sensors beneath the road measure the flow and density of traffic approaching the lights in each direction and the green time is allocated accordingly. They are also coordinated with other traffic lights in the area. The length of time the light stays green varies in response to changing traffic conditions. This ensures that the traffic light phasing is operating at maximum efficiency.</p>
	<p>Why Transport is widening the Pennant Hills Road?</p>	<p>Pinch Points are traffic congestion points, intersections or short lengths of road at which a traffic bottleneck exists, slowing down the broader network. They cause a build-up of traffic and travel delays at these spots and on the wider road network.</p> <p>The intersection of Pennant Hills Road and North Rocks Road has been identified as a major pinch point causing significant traffic congestion due to high traffic volumes travelling through the intersection.</p> <p>Each day nearly 60,000 vehicles travel through this intersection. These road users experience heavy congestion, long delays and slow travel times.</p> <p>Our project will widen the Pennant Hills Road between Woodstock Road and Murray Farm Road will increase the capacity of the road reducing queue length, improving travel times and safety for all road users.</p>
	<p>Turning left from Pennant Hills Road going east on North Rocks Road will result in three lanes converging into one lane on North Rocks Road and that will lead to congestion on</p>	<p>Currently, road users travelling south on Pennant Hills Road wanting to turn left onto North Rocks Road have to wait for the traffic light to turn green and give way to pedestrians crossing the road. As road users give way to pedestrians, this can causes traffic to queue which causes congestion on Pennant Hills Road and travel delays.</p> <p>Our project creates a slip lane for road users</p>

<p>Proposal Justification (continued)</p>	<p>North Rocks Road.</p>	<p>wanting to turn left onto North Rocks Road from Pennant Hills Road when travelling southbound. Road users wanting to turn left from Pennant Hills Road onto North Rocks Road will use the slip lane and there is a dedicate space for vehicles to wait to turn left. This will leave three lanes available for road users wanting to travel through the intersection.</p> <p>Motorists turning left via the slip lane will need to give way to pedestrians using the zebra crossing but they will be able to turn left at any time, as long as it is safe.</p>
	<p>The right turn lanes from North Rocks Road onto Pennant Hills Road will encourage more traffic on North Rocks Road.</p>	<p>Traffic data showed us there is already a high demand for vehicles turning right from North Rocks Road onto Pennant Hills Road in both directions. This high demand is causing congestion at this intersection resulting in slow travel times and delays.</p> <p>At this intersection road users can currently turn right from North Rocks Road onto Pennant Hills Road heading north from the right traffic lane which can be used by motorists turning right and travelling straight through the intersection. This can cause delays and congestions.</p> <p>The project will create a dedicated right turn lane from North Rocks Road onto Pennant Hills Road northbound. This will give road users a place to wait before turning right, without queuing in general traffic lanes and blocking other traffic. For road users wanting to turn right from North Rocks Road onto Pennant Hills Road southbound, our project will create a second dedicated right turn bay. Vehicles wanting to turn right can wait here to make the right turn. Currently some motorists wanting to turn right, wait in the existing dedicated right turn lane, while others queue in the general traffic lane. The second dedicate right turn bay will provide additional space for vehicles to turn right without impacting vehicles wanting to travel through the intersection or turn left.</p> <p>The additional right turn bays on North Rocks Road will reduce queue length and improve travel times by allowing a higher number of right turn movements from North Rocks Road onto Pennant Hills Road during the green right turn arrow time.</p> <p>The project will also change the phasing of the traffic lights, which will allow more road users to turn right.</p> <p>These changes will help improve traffic flow through the intersection, ease congestion and reduce travel</p>

<p>Proposal Justification (continued)</p>		<p>times and are not expected to increase the traffic volumes or demand at this intersection outside of normal growth.</p>
	<p>The proposal will only improve traffic flow on Pennant Hills Road but not on North Rocks Road.</p>	<p>Our project will improve traffic flow on both Pennant Hills Road and North Rocks Road.</p> <p>One of the contributing factors to congestions at the Pennant Hills Road and North Rocks Road is traffic flow through the intersection. It can take many changes of the traffic lights to move through the intersection.</p> <p>When we have looked at the traffic data, which includes information on volumes, travel times and how vehicles are traveling through the intersection, the data shows that road users wanting to turn right from North Rocks Road onto Pennant Hills Road are causing congestion on North Rocks Road and creating long queues of vehicles wanting to travel through the intersection and travel delays.</p> <p>Our project will help road users turn right from North Rocks Road onto Pennant Hills Road, by:</p> <ul style="list-style-type: none"> • installing a dedicated right turn bay from North Rocks Road onto Pennant Hills Road heading north towards the M2 • adding a second dedicated right turn bay from North Rocks Road onto Pennant Hills Road heading south • changing the phasing of the traffic lights to allow more road users to turn right at the intersection. <p>These changes will help ease congestion on North Rocks Road, reduce queues and improve travel times.</p>
	<p>Adding an extra lane southbound on Pennant Hills Road will only shift the congestion from where it is now to where the road goes from three lanes to two lanes.</p>	<p>The Pennant Hills Road and North Rocks Road intersection is a pinch point. The key focus of our project is to improve traffic flow and safety at this intersection, which will ease congestion on both Pennant Hills Road and North Rocks Road.</p> <p>Our project will add an additional lane on Pennant Hills Road in each direction between Woodstock Avenue and Murray Farm Road. This will mean there are three through lanes in each direction along Pennant Hills Road between Murray Farm Road and Woodstock Avenue.</p> <p>It is likely that there will be some small congestion and delays where traffic merges from three lanes into two lanes heading south on Pennant Hills Road near Woodstock Avenue. However, by improving</p>

<p>Proposal Justification (continued)</p>		<p>traffic flow through the intersection and easing congestion, these delays will be offset and road users will, overall, still be saving travel time.</p> <p>As part of our work, we are continuously looking for ways we can improve the road network to ease congestion, reduce travel times and improve safety. There are early stage investigations along other parts of Pennant Hills Road to see if we can make changes to the road network that will have a positive impact for our customers.</p>
<p>Pedestrian and cyclist</p>	<p>Can there be a provision of a shared pedestrian/cycling path?</p>	<p>Shared path will be reinstated where the existing path is impacted by the Project, on both sides of Pennant Hills Road between the existing mid-block crossing and Murray Farm Road.</p> <p>As part of this project, we will build wide footpaths, where possible, that can be upgraded to shared paths in the future by the City of Parramatta council on:</p> <ul style="list-style-type: none"> • the northern side of North Rocks Road between Roselea Way and Pennant Hills Road • the eastern side of Pennant Hills Road north between North Rocks Road and the mid-block crossing near Murray Farm Road • the southern side of North Rocks Road along a quarter of the block between Pennant Hills Road and Jenkins Road – the widen footpath will run for approximately 130 metres from the intersection.
	<p>Is the proposal narrowing the footpaths?</p>	<p>Our project will widen Pennant Hills Road between Woodstock Avenue and Murray Farms Road from two lanes to three lanes in both directions. To allow for road widening, the verge width will be reduced in some areas.</p> <p>As part of this process, we will need to move the footpaths. The footpath will be designed and built as per NSW specifications. The footpaths will be located between the road and property boundaries.</p>
<p>Bus stop</p>	<p>Is the proposal moving bus stop closer to the houses along Pennant Hills Road?</p>	<p>Our proposal will impact the location of a number of bus stops along Pennant Hills Road. Our widening work means that many of the current locations of bus stops along Pennant Hills Road will be in the middle of the third northbound lane. We will position the bus stops at the same location but further back, so that they are at a safe distance from the kerb.</p> <p>However, there are two exceptions to this. We will be relocating two bus stops on Pennant Hills Road,</p>

<p>Bus stop (continued)</p>		<p>bus stop ID 211831 will be moved 18 metres south of where it is currently located and bus stop ID 2118174 will be moved 150 metres south to be nearer to the Roselea Community Centre.</p> <p>We will not be removing any bus stops as part of this proposal.</p> <p>During construction, the bus stops will be temporarily relocated to ensure bus customers can safely access bus services, with as minimal disruption as possible. We will notify the community well in advance of any changes.</p>
	<p>Can the bus stop be relocated closer to the new pedestrian crossing or at empty space near the eastbound left turn slip lane on Pennant Hills Road?</p>	<p>As part of this project, will be moving bus stop ID 2118174 150 metres south to be nearer to the Roselea Community Centre and the mid-cross pedestrian crossing on Pennant Hills Road.</p> <p>We can't move the bus stop closer to the Pennant Hills Road and North Rocks Road intersection as buses stopping this close to the intersection would negatively impact traffic flow, resulting in congestion and delays.</p>
	<p>If you widen Pennant Hills Road the bus stop located on south side of the intersection on Pennant Hills Road, needs to be moved</p>	<p>Our proposal will impact the location of a number of bus stops along Pennant Hills Road. Our widening work means that many of the current locations of bus stops along Pennant Hills Road will be in the middle of the third northbound lane. We will position the bus stops at the same location but further back, so that they are at a safe distance from the kerb.</p> <p>However, there are two exceptions to this. We will be relocating two bus stops on Pennant Hills Road, bus stop ID 211831 will be moved 18 metres south of where it is currently located and bus stop ID 2118174 will be moved 150 metres south to be nearer to the Roselea Community Centre.</p> <p>We will not be removing any bus stops as part of this proposal.</p> <p>During construction, the bus stops will be temporarily relocated to ensure bus customers can safely access bus services, with as minimal disruption as possible. We will notify the community well in advance of any changes.</p>
<p>Property</p>	<p>How do we access properties of the right hand side of Pennant Hills Road when heading north from</p>	<p>The project will install a raised central median along Pennant Hills Road. This will prevent road users turning right across Pennant Hills Road.</p> <p>Our project will widen Pennant Hills Road to three</p>

Property (continued)	Carlingford?	<p>lanes in each direction between Woodstock Avenue and Murray Farms Road. It is unsafe to turn right across three lanes of traffic without the assistance of a right turn arrow.</p> <p>We understand that this will mean road users need to travel further to be able to access properties. Our proposed detour for road users heading north on Pennant Hills Road is to continue on Pennant Hills Road, travel through the intersection with the M2 Motorway, turn right onto Copeland Road and use the round-about at Cardinal Avenue to turn around and then come back along Copeland Road and Pennant Hills Road.</p>
	How do we access properties on the northern side of North Rocks Road just before the Pennant Hills Road intersection?	<p>The project will install a raised central median for 70 metres along North Rocks Road between Roselea Way and Pennant Hills Road. This will prevent road users turning right across North Rocks Road.</p> <p>It is unsafe to have vehicles turning across two lanes of traffic in such close proximity to the intersection, especially given the high volume of road users traveling eastbound on North Rocks Road. Banning right turns across this section of North Rocks Road will improve safety.</p> <p>We understand that this will mean road users need to travel further to be able to access properties. Our proposed detour for road users heading west on North Rocks Road is to continue through the intersection with Pennant Hills Road, turn left onto Jenkins Road, use the roundabout on Jenkins Road and come back on Jenkins Road and North Rocks Road.</p>
	Will retaining walls be built to protect properties along Pennant Hills Road and North Rocks Road?	<p>Retaining walls are used to help prevent soil movement where there are differences in ground levels.</p> <p>As part of this project, we will be building a number of retaining walls along Pennant Hills Road. Some of these walls will be along the road, while others will be along the boundary line with private properties.</p> <p>If we need to build a retaining wall on your property boundary we will contact you individually to discuss this matter.</p>
	If you widen the North Rocks Road to install a second right turn lane, we will lose our car parking spot.	<p>Thank you for your feedback. When designing our project we reviewed the traffic data including volumes, travel times and where vehicles were heading. This analysis showed that road users wanting to turn right from North Rocks Road onto</p>

<p>Property (continued)</p>		<p>Pennant Hills Road heading south was a significant cause of congestion.</p> <p>To address this, we will be building a second dedicated right turn lane. This will provide road users wanting to turn right a place to queue without blocking other traffic. By having a second right turn lane, more road users will be able to turn right when there is a green right turn arrow. This will improve traffic flow and ease congestion.</p> <p>We need to widen North Rocks Road to create this additional right turn lane. We will be widening the road on the southern side of North Rocks Road for about a quarter of the block between Pennant Hills Road and Jenkins Road – approximately 130 metres from the intersection.</p> <p>The project will not change the current on-street parking conditions on North Rocks Road west of the intersection, the verge will be reduced which may impact unofficial parking opportunities.</p>
	<p>How will you ensure nearby properties are not damaged by your project?</p>	<p>We understand that our work can be disruptive and intrusive. We aim to minimise the impact we have on the local community.</p> <p>Prior to starting construction on this project, Transport will undertake building condition inspections on potentially affected properties. We will contact all identified properties to make arrangements to undertake this inspection in due time.</p> <p>This inspection will be undertaken by an independent third party and copies of these reports can be shared with property owners.</p> <p>During construction we will implement mitigation measures, as per the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual.</p> <p>At the end of construction, if the property owner has any concerns, we will consider undertaking a second building condition inspection to see if any damage was sustained. If there is any damage, we will look at what has caused this and discuss this and next steps with property owners.</p>
	<p>Given the different ground levels between North Rocks Road, Pennant Hills</p>	<p>Different ground levels is a challenge we face on a lot of our projects. As part of our project we will be building a number of retaining walls along the Pennant Hills Road, where there is a difference</p>

Property (continued)	Road and nearby properties, how will you prevent land slipping?	<p>between the ground level and the road level. The retaining walls will help retain the soil and prevent land sliding. These retaining walls will be built in the verge and along the property boundary line.</p> <p>If your property is impacted, we will contact you individually to have a discussion about this.</p>
	Will pedestrians move closer to my property?	<p>Our project will widen Pennant Hills Road between Woodstock Avenue and Murray Farms Road from two lanes to three lanes in both directions. To allow for road widening, the verge width will be reduced in some areas.</p> <p>As part of this process, we will need to move the footpaths. The footpath will be designed and built as per NSW specifications. The footpaths will be located between the road and property boundaries.</p>
	The proposed lane widening will impact our backyard.	<p>Our project will widen Pennant Hills Road and North Rocks Road to create additional turning bays, slip lanes and three lanes general traffic lanes along Pennant Hills Road from Woodstock Avenue to Murray Farms Road.</p> <p>Our project will impact some private properties. These will be discussed with property owners individually. Where possible, we will use Transport for NSW land to undertake this widening work. This will minimise the impact on private property.</p> <p>Along Pennant Hills Road, some properties have put their back yard and front yard fences on Transport for NSW land. As the project progresses, we will be contacting these properties to discuss moving the fences off our land and back onto the property boundary.</p> <p>Transport for NSW will cover the cost of relocating these fences to the property boundaries and this work will be done in discussion with property owners.</p>
Environmental impacts - noise and air	What sound barrier will be introduced to offset the additional traffic noise?	<p>Transport for NSW undertakes noise modelling for our projects, to predict future noise levels after a project opens to traffic. Noise modelling has been carried out to understand what the future noise levels would be following the road improvements compared to the existing noise levels. The modelling takes into consideration growth in traffic volumes.</p> <p>The noise modelling results predicts a slight increase in noise levels (less than 2dB) received by adjoining properties near Pennant Hills Road and</p>

<p>Environmental impacts - noise and air (continued)</p>		<p>North Rocks Road. According to the EPA this increase is very small and would have minor impacts on the community.</p> <p>A 2dB noise increase is not at a level that would require noise mitigation treatment under the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual.</p>
	<p>Previous noise mitigation measures have only partially reduced the noise levels.</p>	<p>Noise treatments are determined based on noise modelling. Where there is an increase in noise levels because of our project or increased traffic that meets a pre-determined threshold under the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual, properties are eligible for noise treatments. What treatments they received depends on the noise impact and this can mean that different sides of properties receive different treatments.</p> <p>When road projects impact noise levels above a threshold, it is the project's responsibility to mitigate the noise impacts for residents. We have undertaken noise modelling for this project. The noise modelling results predicted a slight increase in noise levels (less than 2dB) received by adjoining properties near Pennant Hills Road and North Rocks Road. According to the EPA this increase is very small and would have minor impacts on the community.</p> <p>A 2dB noise increase is not at a level that would require noise mitigation treatment under the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual.</p> <p>Transport for NSW has a noise abatement program, where you can apply for noise treatment of your property due to increase traffic noise. You can find out more about this program here.</p>
	<p>Will properties on Pennant Hills Road and North Rocks Road be eligible for noise treatments?</p>	<p>Transport for NSW undertakes noise modelling for our projects, to predict future noise levels after a project opens to traffic. Noise modelling has been carried out to understand what the future noise levels would be following the road improvements compared to the existing noise levels. It also takes into consideration growth in traffic volumes.</p> <p>The noise modelling results predicts a slight increase in noise levels (less than 2dB) received by adjoining properties near Pennant Hills Road and North Rocks Road. According to the EPA this increase is very small and would have minor</p>

<p>Environmental impacts - noise and air (continued)</p>		<p>impacts on the community.</p> <p>A 2dB noise increase is not at a level that would require noise mitigation treatment under the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual.</p>
	<p>Are you planning to build a noise wall as part of this project?</p>	<p>Transport for NSW undertakes noise modelling for our projects, to predict future noise levels after a project opens to traffic. Noise modelling has been carried out to understand what the future noise levels would be following the road improvements compared to the existing noise levels. It also takes into consideration growth in traffic volumes.</p> <p>The noise modelling results predicts a slight increase in noise levels (less than 2dB) received by adjoining properties near Pennant Hills Road and North Rocks Road. According to the EPA this increase is very small and would have minor impacts on the community.</p> <p>A 2dB noise increase is not at a level that would require noise mitigation treatment under the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual. We will not be building a noise wall as part of this project.</p>
	<p>Road widening will move the road closer to properties and could lead more dust and pollution entering people's homes.</p>	<p>Our project will widen Pennant Hills Road and North Rock Road and it will bring the road closer to nearby properties. We aim to do this by:</p> <ul style="list-style-type: none"> • widening Pennant Hills Road between Woodstock Avenue and Murray Farm Road, adding an extra through lane in each direction • widening North Rocks Road to install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south • removing the left turn slip lane from Pennant Hills Road onto North Rocks Road west, to enable three northbound lanes through the intersection • installing a new left turn slip lane from Pennant Hills Road to North Rocks Road heading east • widening North Rocks Road east to add a right turn lane for road users travelling westbound on North Rocks Road and turning right into Pennant Hills Road heading north • installing a raised median in the centre of Pennant Hills Road between Woodstock Road and Murray Farm Road and on North Rocks Road at the approaches to the Pennant Hills Road intersection

<p>Environmental impacts - noise and air (continued)</p>		<ul style="list-style-type: none"> installing a new pedestrian crossing on the southern side of Pennant Hills Road and North Rocks intersection. <p>By easing congestion and improving traffic flow through the intersection there will be less road users waiting at the intersection and motorists won't need to brake and accelerate as often. These changes are expected to improve the air quality.</p>
	<p>More traffic lanes mean additional noise from vehicles especially big trucks and buses.</p>	<p>Our proposal aims to ease congestion, reduce travel times and improve traffic flow through the intersection. We aim to do this by:</p> <ul style="list-style-type: none"> widening Pennant Hills Road between Woodstock Avenue and Murray Farm Road, adding an extra through lane in each direction widening North Rocks Road to install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south removing the left turn slip lane from Pennant Hills Road onto North Rocks Road west, to enable three northbound lanes through the intersection installing a new left turn slip lane from Pennant Hills Road to North Rocks Road heading east widening North Rocks Road to add a right turn lane for road users turning onto Pennant Hills Road heading north installing a raised median in the centre of Pennant Hills Road between Woodstock Road and Murray Farm Road and on North Rocks Road at the approaches to the Pennant Hills Road intersection installing a new pedestrian crossing on the southern side of Pennant Hills Road and North Rocks intersection. <p>By easing congestion and improving traffic flow through the intersection there will be less road users waiting at the intersection and motorists won't need to brake and accelerate as often. This will mean less noise from traffic.</p> <p>As part of our work, we have undertaken a noise assessment and have carried out noise modelling. The noise modelling predicts future noise levels after a project opens to traffic, compared to the existing noise levels. It also takes into consideration growth in traffic volumes.</p> <p>The noise modelling results showed there will be a slight increase in noise levels received by adjoining</p>

Environmental impacts - noise and air (continued)		properties near Pennant Hills Road and North Rocks Road, but that this increase is not at a level that would require noise mitigation treatment under the EPA – NSW Road Noise Policy – 2011 and RMS Environment Noise Management Manual.
Environment impacts - loss of vegetation	What will be the impact of this project on the trees?	<p>Thank you for your feedback. To widen Pennant Hills Road and North Rocks Road we will need to remove a number of trees along these roads.</p> <p>Trees that are near or next to our project area will be assessed by an arborist to see what impact the project will have on the trees. We will do everything we can to minimise the number of trees that need to be removed, including following the arborist's advice and implementing mitigation measures.</p> <p>If there is a tree on your property that will be impacted, we will contact property owners prior to the start of construction to discuss this matter individually.</p> <p>We will replace any removed trees at a ratio of one-for-one in the local area. However, it is unlikely that we will be able to replace them in the same location. We will work with council to identify appropriate areas to plant these trees.</p>
Safety	Will there be a fence running along the new raised median strips?	<p>Safety is a priority for Transport for NSW. We have considered installing a pedestrian fencing in the raised median along Pennant Hills Road.</p> <p>Pedestrian fencing is used in areas where there are large numbers of pedestrians to direct pedestrians to safe locations to cross the road, such as zebra crossings and signalised pedestrian crossings.</p> <p>We have reviewed the pedestrian volumes in the area. These volumes are low when compared to locations where we have installed pedestrian fencing.</p> <p>As there are low pedestrian volumes in the area, when compared to locations where pedestrian fencing is used, and there are a number of safe crossing points for pedestrians, we will not be installing pedestrian fencing along the raised median as part of this project.</p> <p>We will continue to monitor the situation, and if necessary reconsider in the future.</p> <p>Our project includes a number of pedestrian protection measures such as:</p>

<p>Safety (continued)</p>		<ul style="list-style-type: none"> • installing pedestrian signals at all sides of the Pennant Hills Road and North Rocks Road intersection – currently there are only signalised pedestrian crossings on three sides of the intersection • installing a zebra crossing across the slip lane from Pennant Hills Road onto North Rocks Road heading east. This will help pedestrians, including school children, safely cross the slip lane to use the pedestrian crossing at the intersection. <p>There is also a mid-block signalised pedestrian crossing on Pennant Hills Road near Roselea Community Centre to help pedestrians cross the road safely.</p> <p>Transport for NSW strongly encourages pedestrians to cross Pennant Hills Road and North Rocks Road at signalised crossings and follow NSW Road Rules.</p>
	<p>The proposal to widen the Pennant Hills Road will bring traffic closer to the properties on Pennant Hills Road and increase the risk of accidents.</p>	<p>Thank you for your feedback. When upgrading the road network, our priority is to improve safety for road users, including pedestrians and the local community.</p> <p>When designing our project we follow the relevant guidelines such as the Austroads Geometric Road Design Standards and our projects go through a rigorous safety review at various stages to ensure they are safe. Some of these reviews are internal and some are done by external experts.</p> <p>Our project will widen Pennant Hills Road from two lanes to three lanes in both directions between Woodstock Avenue and Murray Farms Road and will bring the road closer to properties. Our project also includes road widening on North Rocks Road.</p> <p>Currently there is a very large verge between the road and nearby properties. Our project will reduce the size of the verge, however, the new verge will still meet the width requirements for a verge under the NSW Streets Opening Coordination Council Guide to Codes and Practices for Streets Opening and will maintain a safe distance between the road and nearby properties.</p>
	<p>What safety measures are being introduced to protect children crossing the road at the Pennant Hills Road and North</p>	<p>Transport is very concerned about the safety of all road users, including pedestrians, and is working towards zero deaths and serious injuries on our roads.</p> <p>Our project includes an additional signalised</p>

<p>Safety (continued)</p>	<p>Rocks Road intersection?</p>	<p>pedestrians crossing at the Pennant Hills Road and North Rocks Road intersection. This means all sides of the intersections will have signalised pedestrian crossings, which will make it easier and safer for pedestrians to cross the road at this intersection.</p> <p>We are also installing a zebra crossing across the slip lane from Pennant Hills Road onto North Rocks Road heading east. This will help pedestrians, including school children, safely cross the slip lane to use the pedestrian crossing at the intersection.</p> <p>There is also a mid-block signalised pedestrian crossing on Pennant Hills Road near Roselea Community Centre to help pedestrians cross the road safely.</p>
	<p>Drivers do not obey the traffic lights at the intersection.</p>	<p>Thank you for your feedback. NSW Police is responsible for monitoring the road network to ensure users comply with all road rules and regulations. We encourage members of the public to report any road users disobeying road rules to the Police. Please contact the Hills Police Area Command on 02 9685 5399.</p>
	<p>Creating a left turn slip lane onto North Rocks Road heading east from Pennant Hills Road will result in road users speeding when entering the school zone, increasing the risk to pedestrian safety and congestion.</p>	<p>Thank you for your feedback. When turning left from Pennant Hills Road, vehicles enter the slip lane at reduced speed to prepare to make the turn. As a result, the slip lane is not expected to increase the speed of vehicles travelling eastbound on North Rocks Road.</p> <p>When designing this proposal we studied the traffic data such as traffic counts, vehicle types, traffic movements etc. which showed us traffic volumes, travel times and the directions motorists were heading.</p> <p>The proposed slip lane will improve traffic flow for vehicles turning left and ease congestions and improve journey times as road users turning left don't have to stop at the lights. It is not expected to increase the demand for the left turn from Pennant Hills Road or traffic volume on North Rocks Road, outside of normal growth.</p> <p>Road users need to comply with speed limits include school zones during the nominated hours. Our proposal will not change the speed limit on Pennant Hills Road or North Rocks Road or make any changes to the nearby school zone.</p>
	<p>Please install a red-light-speed-camera at this intersection.</p>	<p>Red-light speed cameras are installed at intersections that are identified as having high crash risk. Crash data and other road safety information,</p>

<p>Safety (continued)</p>		<p>including feedback from the community, are used to help to prioritise future locations for red-light-speed-cameras in NSW.</p> <p>We are not installing a red-light-speed-camera as part of our project.</p> <p>The community can nominate a location for a speed camera on the Safer Roads NSW website.</p>
	<p>Safety at the intersection should be the priority.</p>	<p>Transport is committed to improving safety for all road users and is working towards zero deaths and serious injuries on our roads.</p> <p>When undertaking any road improvements, our plans undergo rigorous safety reviews. Some of these reviews are carried out by external experts.</p> <p>Our intersection improvements will improve safety by:</p> <ul style="list-style-type: none"> • installing a raised median along Pennant Hills Road – this will create a barrier between the different directions of traffic and prevent vehicles from making unsafe turns across three lanes of traffic • adding an extra signalised pedestrian crossings at the Pennant Hills Road and North Rocks Road intersection so all sides of the intersection will have pedestrian protection – currently there are only three signalised pedestrian crossings • adding a zebra crossing across the slip lane from Pennant Hills Road onto North Rocks road • providing additional right turn bays at the intersection for motorists which will provide dedicated space for road users to wait to turn right, while still allowing through traffic to travel through the intersection. This will reduce the likelihood of rear-end crashes at the intersection.
	<p>How will utilities be relocated so that our services are not disrupted and this is done safely?</p>	<p>Our project will require us to relocate a number of utilities such as electrical, water, telecommunication and gas services. We will coordinate this work with the relevant service providers.</p> <p>We will do everything we can to minimise disruption to services when relocating these utilities, however, to undertake this work safely we may need to temporarily suspend services. If this is necessary, we will notify the community in advance.</p> <p>We will also work with the relevant service providers</p>

Safety (continued)		to ensure we follow all safety rules and regulations.
	Increasing travel speed will result in a greater risk to safety of pedestrians and school children on North Rocks Road	<p>Transport is committed to improving safety for all road users and is working towards zero deaths and serious injuries on our roads.</p> <p>Our project will not increase travel speeds on either Pennant Hills Road or North Rocks Road. Motorists will need to follow the existing speed limits, including the school zone during nominated hours.</p> <p>Our project includes a number of pedestrian protection measures such as:</p> <ul style="list-style-type: none"> • installing pedestrian signals all sides of the Pennant Hills Road and North Rocks Road intersection – currently there are only signalised pedestrian crossings on three sides of the intersection • installing a zebra crossing across the slip lane from Pennant Hills Road onto North Rocks Road heading east. This will help pedestrians, including school children, safely cross the slip lane to use the pedestrian crossing at the intersection. <p>There is also a mid-block signalised pedestrian crossing on Pennant Hills Road near Roselea Community Centre to help pedestrians cross the road safely.</p>
	There is an increase in vandalism and graffiti in the area. Your project will make this worse.	<p>Vandalism is against the law and should be reported to the NSW Graffiti Hotline 1800 707 125.</p> <p>You can also contact your local council to see if they run a volunteer program or if they can put you in contact with community groups who are involved in volunteer graffiti removal programs.</p> <p>Our project is not expected to increase vandalism or graffiti in the area.</p>
The increase foot traffic along walkways and narrowing of lanes would potentially increase the chance of home intrusions, thefts and vandalism. Can we have an abatement wall to prevent home invasion?	<p>Thank you for your feedback. Please contact The Hills Police Area Command on 02 9680 5399 to report anti-social behaviour.</p> <p>Our design maintains the required width between the road and property boundary as per NSW Streets Opening Coordination Council Guide to Codes and Practices for Streets Opening.</p> <p>Our project is not expected to increase crime in the area. We will not be including an abatement wall as part of this project.</p>	

Safety (continued)	Can we have brighter lights or more lights be installed near the bus stops or interaction areas to deter crime?	<p>When considering what lights to use along roads, we look at a number of factors and think about what lighting is needed for motorists, pedestrians and the impact of this lighting on nearby residents.</p> <p>Our project will improve the street lighting along Pennant Hills Road and North Rocks Road by using new LED lights which produce a crisper, whiter light, which appear brighter. This lighting will be positioned along the road way, foot and shared paths and near bus stops.</p>
	Would a CCTV installed to monitor the intersection and bus stop areas?	<p>Thank you for the feedback. Safety is a priority for Transport at all the stages of our projects and in the daily operations on our roads. While installing a CCTV or camera traffic control is not included in our scope of works, your safety concerns have been referred to the Traffic Management Centre at Transport to nominate this location for a CCTV or camera traffic control.</p>
	Are you planning to build a safety wall along Pennant Hills Road?	<p>When designing roads, safety and risk are at the forefront of our thinking. We have designed the road layout to comply with requirements of Austroads Geometric Road Design standards. This document is used Australia wide to design roads.</p> <p>Moreover, our proposed road designs are reviewed by Transport, independent Road Safety Auditors. Where risks are identified they are assessed and addressed.</p> <p>Although the roads will be closer to properties, we have maintained the required width between the road and the property boundary as per NSW Streets Opening Coordination Council Guide to Codes and Practices for Streets Opening.</p> <p>At this stage, we won't be installing a barrier along Pennant Hills Road as part of this project. However, we will continue to assess the safety implications of this project and if a barrier, such as a safety wall, is required we will incorporate it into our plans.</p>
Community suggestions	Are there any plans for another pedestrian crossing along Pennant Hills Road between the lights at Carlingford Road and then North Rocks Road?	<p>Thank you for your suggestion.</p> <p>As part of this proposal, we will be adding a new signalised pedestrian crossing at the intersection of Pennant Hills Road and North Rocks Road, which will mean all sides of the intersection will have signalised crossing for pedestrians.</p> <p>There is currently no plans to install another pedestrian crossing along Pennant Hills Road</p>

<p>Community suggestions (continued)</p>		<p>between Carlingford Road and North Rocks Road. However, Transport is continually undertaking investigations of key corridors, including Pennant Hills Road, as part of the network planning process. This process aims to establish the transport vision and objectives for the corridor, in line with the NSW Government's strategies including Future Transport 2056.</p> <p>The planning process looks into strategic opportunities to improve key customer experience and journeys along road corridors. Following completion of the network planning process, potential measures are developed to identify and prioritise short, medium and long term customer outcomes. Further development of feasible options are subject to a business case approval process and funding prioritisation on a state-wide priority basis.</p> <p>The proposal for additional pedestrian crossing along Pennant Hills Road will be considered as part of this investigation process.</p>
	<p>Can you add traffic lights at the Murray Farm Road and Pennant Hills Road intersection?</p>	<p>Thank you for your suggestions.</p> <p>Murray Farm Road is in close proximity to three sets of traffic lights:</p> <ol style="list-style-type: none"> 1. the M2 signalised interchange 2. the intersection of Pennant Hills Road and North Rocks Road 3. the signalised mid-block pedestrian crossing on Pennant Hills Road between North Rocks Road and Murray Farm Road. <p>Signalising the Murray Farm Road and Pennant Hills Road intersection will add a fourth set of traffic lights in a relatively small area. If we were to signalise the Murray Farm Road and Pennant Hills Road intersection, it would be within 184 metres of the signalised mid-block crossing across Pennant Hills Road near the Roselea Community Centre. This would negatively impact traffic flow, resulting in delays and congestion.</p> <p>As this change would have the opposite impact of our proposed intersection upgrades, we won't be making this change to our proposal.</p>
	<p>Can the middle lane from North Rocks Road be made into a right turn and through lane rather than just a right turn lane onto</p>	<p>Thank you for your suggestion. When designing this proposal we considered all configuration options for the intersections. As part of this process we reviewed the traffic data such as traffic counts, vehicle type, traffic movements etc. which showed us traffic volumes, travel times and which direction</p>

<p>Community suggestions (continued)</p>	<p>Pennant Hills Road heading south?</p>	<p>motorists were heading.</p> <p>The traffic data showed us that most road users on North Rocks Road heading east who pass through this intersection were turning right onto Pennant Hills Road heading south. The number of motorists travelling straight through the intersection and turning left onto Pennant Hills Road was significantly lower than those turning right.</p> <p>The data also showed that there are long queues of motorists on North Rocks Road wanting to turn right onto Pennant Hills Road. Some of these motorists wait in the existing dedicated right turn lane, but others queue in the general traffic lane.</p> <p>As part of this process we modelled our traffic data to predict how traffic would behave in the future. This modelling takes into consideration predicted growth for the area. The modelling showed that our proposed configuration, of two dedicated right turn lanes, one through traffic lane and a left turn slip lane, is the best configuration to improve traffic flow and reduce queueing.</p> <p>If we were to make the middle lane both a right turn lane and a through traffic lane it would impact the efficiency of the intersection. Intersection are more efficient when each traffic lane has only one possible traffic movement, e.g. turning left, traveling straight or turning right. Combining two possible movements, e.g. turning right and traveling straight, will make the intersection less efficient.</p> <p>Given the demand for right turns from North Rocks Road onto Pennant Hills Road south and the need to ease congestion, we won't be changing the lane configuration at the intersection.</p>
	<p>Can we have a right hand turn onto either Dunrossil avenue or Alamein Avenue for road users travelling north on Pennant Hills Road?</p>	<p>Our proposal focuses on intersection improvements at Pennant Hills Road and North Rocks Road. Improvements at the intersection of Dunrossil Avenue and Pennant Hills Road and Alamein Avenue and Pennant Hills Road are not part of our proposed project. Our project, including during construction, will not impact these intersections.</p> <p>We are investigating a number of other pinch points along Pennant Hills Road between Pennant Hills Road, Carlingford Road and Rembrandt Street, Pennant Hills Road and Bakers Street, Pennant Hills Road and Jenkins Road and will pass our feedback onto the team who is leading this work.</p>

Community suggestions (continued)	<p>Can we have a right hand turn from Carlingford Road onto Pennant Parade for the road users travelling from Epping station towards Carlingford to avoid congestion during construction?</p>	<p>Improvements at the intersection of Carlingford Road and Pennant Hills Parade are not part of our proposed project. Our project, including during construction, will not impact these intersections.</p> <p>We are investigating a number of other pinch points along Pennant Hills Road between Pennant Hills Road, Carlingford Road and Rembrandt Street, Pennant Hills Road and Bakers Street, Pennant Hills Road and Jenkins Road and will pass our feedback onto the team who is leading this work.</p>
	<p>The lane configuration from North Rocks Road through the intersection heading west should be:</p> <ul style="list-style-type: none"> • right turn only • right turn or through travel • left turn or through travel. 	<p>Thank you for your suggestion. When designing this proposal we considered all configuration options for the intersection. As part of this process we reviewed the traffic data such as traffic counts, vehicle type, traffic movements etc. which showed us traffic volumes, travel times and which direction motorists were heading.</p> <p>The traffic data showed us that there was a large number of road users on North Rocks Road turning right onto Pennant Hills Road towards the M2.</p> <p>As part of this process we modelled our traffic data to predict how traffic would behave in the future. This modelling takes into consideration predicted growth for the area. The modelling showed that our proposed configuration, of installing a dedicated right turn lane and two through traffic lane where road users can turn left from the kerbside lane, is the best configuration to improve traffic flow and reduce queueing.</p>
	<p>The left turn slip lane from North Rocks Road onto Pennant Hills Road needs to be longer.</p>	<p>As part of our proposal we are adding a left turn slip lane from Pennant Hills Road onto North Rocks Road heading east. While we were planning this project, we investigated the possibility of extending the left turn slip lane from Pennant Hills Road onto North Rocks Road.</p> <p>If we were to extend the proposed left turn slip lane, we would need to acquire more property for the project and relocate additional service utilities. This would add additional time to the length of the project and cost. While the extended slip lane would add a small benefit, given the constraints mentioned above, the benefits we would achieve would not outweigh the cost.</p> <p>We will progress with the project using the length of the slip lane that was in our proposal.</p>

<p>Community suggestions (continued)</p>	<p>The green light for travelling east to west through the intersection needs to be longer.</p> <p>Can you change the phasing of the traffic lights to allow more green time for road users to travel through this intersection?</p>	<p>Traffic lights in NSW are controlled by the Sydney Coordinated Adaptive Traffic System (SCATS), which allocates the length of green time bases on real time traffic flow. Sensors beneath the road measure the flow and density of traffic approaching the lights in each direction and the green time is allocated accordingly. The length of time the light stays green varies in response to changing traffic conditions. This ensures that the traffic light phasing is operating at maximum efficiency.</p>
	<p>A footbridge at the intersection.</p>	<p>Thank you for the feedback. We have considered installing a footbridge at the Pennant Hills Road and North Rocks Road however, there is not enough pedestrians to warrant building a footbridge at the Pennant Hills Road and North Rocks Road intersections.</p> <p>Our project ensures pedestrians can safely cross Pennant Hills Road and North Rocks Road using signalised pedestrian crossings. Under our proposal all sides of the intersection of Pennant Hills Road and North Rocks Road will have signalised pedestrian crossings.</p> <p>We are also installing a zebra crossing across the slip lane from Pennant Hills Road onto North Rocks Road heading east. This will help pedestrians, including school children, safely cross the slip lane to use the pedestrian crossing at the intersection.</p> <p>There is also a mid-block signalised pedestrian crossing on Pennant Hills Road near Roselea Community Centre to help pedestrians cross the road safely.</p>
	<p>Install a zebra crossing on the new proposed slip lane between the corner of Pennant Hills Road and North Rocks Road</p>	<p>Thank you for your suggestion.</p> <p>As part of the project design a zebra crossing is proposed at the new left turn slip lane on the north east corner of the intersection. The zebra crossing will be installed to make it safer for the pedestrian to cross the slip lane.</p>
	<p>Please stop the rat runs on Pennant Hills Road, Carlingford Road and North Rocks Road.</p>	<p>Rat runs generally occur when road users try to avoid congested intersections. By improving the Pennant Hills Road and North Rocks Road intersection, we will ease congestion, improve traffic flow and reduce travel delays. This will encourage more people to use Pennant Hills Road and North Rocks Road and reduce rat running on local streets.</p>

<p>Community suggestions (continued)</p>	<p>Can we introduce right turn onto Oakes Road from North Rocks Road?</p>	<p>Thank you for your suggestion.</p> <p>When designing this proposal we reviewed the traffic data such as traffic counts, vehicle type, traffic movements etc. which showed us traffic volumes, travel times and which directions motorists were heading. From the data we evaluated there is a large demand for the right turn movement from North Rocks Road onto Pennant Hills Road southbound.</p> <p>While our proposal focuses on the Pennant Hills Road and North Rocks intersection and Pennant Hills Road between Murray Farms Road and Woodstock Road, we understand that there is heavy congestion at the intersection of North Rocks Road and Oakes Road.</p> <p>As part of this project, we will not be changing traffic conditions, including right turn bans, from North Rocks Road onto Oakes Road. However, we have noted your feedback and it will be considered in future planning processes.</p>
	<p>Is it possible to connect North Rocks Road to Murray Farm Road?</p>	<p>Thank you for your suggestion.</p> <p>Connecting Murray Farm Road to North Rocks Road would change the local community significantly and require a large number of properties to be acquired. Given these significant impacts on the local community and the current traffic volumes, we are not considering connecting Murray Farm Road to North Rocks Road at this time.</p>
	<p>Why is the Pennant Hills Road and North Rocks Road intersection so congested?</p>	<p>The Pennant Hills Road and North Rocks Road intersection is congested because there are more motorists using this intersection regularly that it was originally designed for.</p> <p>When designing this proposal we reviewed the traffic data such as traffic counts, vehicle type, traffic movements etc. which showed us traffic volumes, travel times and which directions motorists were heading. We also undertook traffic modelling, which consider current and future traffic volumes and different configuration of the intersection. This data helped us understand what was happening at the intersection and identify ways to improve congestion.</p> <p>Our proposal will increase the capacity of the Pennant Hills Road and North Rocks Road intersection by widening Pennant Hills Road and</p>

<p>Community suggestions (continued)</p>		<p>North Rocks Road to:</p> <ul style="list-style-type: none"> • add an extra through lane in each direction on Pennant Hills Road between Woodstock Avenue and Murray Farm Road • install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south • install a dedicated right turn lane from North Rocks Road onto Pennant Hills Road north towards the M2. <p>These improvements will help ease congestion, reduce travel times and improve safety.</p>
	<p>Where is the traffic going through this intersection heading?</p>	<p>As part of our planning process we undertake a number of investigations, including analysis of the traffic data including traffic counts, vehicle type, traffic movements etc. This data is sourced from traffic count data, SCATS data and video surveys.</p> <p>This data provides us with information on vehicle numbers, peak times when the road is being used, travel times, direction of traffic, crash data and lots of other information.</p> <p>Our traffic data analysis shows that road users who travel through this intersection are mainly heading towards Carlingford, the M2 and western Sydney.</p>
	<p>How much time will commuters save from this intersection improvement?</p>	<p>Traffic modelling has shown our proposal will improve travel times and save commuters on an average 44 seconds each day at the intersection, 83 seconds on North Rocks Road and 74 seconds on Pennant Hills Road. While this may not seem like a lot, when you consider that 60,000 motorists travel through this intersection each day the total savings are significant. This means less time stuck in traffic and more time with family and friends and doing the things you love.</p>
	<p>Will construction works be carried out at night to minimise impacts on the local road network?</p>	<p>We will plan the work schedule so the upgrades can be completed as quickly as possible, limiting the impact on road users and the local community.</p> <p>We will work during the day when possible. Our day work hours will be between 7am and 6pm from Monday to Friday and between 8am to 1pm on Saturday.</p> <p>However, most of our work will need to be carried out at night to minimise traffic disruption and reduce safety risks to the workers. When necessary, we will work up to five nights a week, weather permitting and excluding public holidays. Our night time work</p>

Community suggestions (continued)		<p>will be from Sunday night to Thursday night between 8pm and 5am the next day</p> <p>We will inform the community of upcoming night work before starting. We will engage with the community to minimise the impact of our night work, including implementing mitigation measures to reduce the impact of noisier tasks and completing these tasks by midnight.</p>
	<p>Can you consider connecting North Rocks Road, Pennant Parade, Mobs Lane to A6 to avoid congestion at Carlingford signal?</p>	<p>Thank you your suggestion.</p> <p>Traffic data analysis such as traffic count data during the peak hours, SCATS data and video surveys have identified the intersection of Pennant Hills Road and North Rocks Road as a pinch point in the road network.</p> <p>Transport is investigating a few other projects along Pennant Hills Road, Carlingford Road and Rembrandt street. The intersection of Carlingford Road and Pennant Hills Road is not part of this project scope. While your suggestion is not included as part of this proposal it has been noted for any future upgrades in the area.</p>
	<p>A flyover or tunnel at North Rocks Road is needed.</p>	<p>Thank you for your suggestion. The purpose of this community consultation was to seek feedback on the proposed intersection improvements on Pennant Hills Road and North Rock Road.</p> <p>We believe that the proposed changes will help ease congestion and improve travel times, traffic flow and safety at the intersection.</p> <p>We appreciate your suggestion to for a flyover or tunnel at North Rocks Road. At the moment, the traffic volumes and predicted growth does support the investment in such large infrastructure.</p> <p>While your suggestion isn't included as part of the proposal and it's out of the scope, it has been noted for any future upgrades within the area.</p>
	<p>Why there is no parking bays for trucks to rest safely?</p>	<p>There are parking bays for trucks along state road network as required. The Pennant Hills Road at North Rocks Road is a mostly residential area. If heavy vehicles were to park on Pennant Hills Road, they may create unsafe environment for other road users by causing an obstruction or impeding vision.</p>

4. Final decision

Transport would like to thank the community and key stakeholders for considering the proposal and taking the time to provide feedback.

After carefully considering the feedback received, along with the proposal's aims and design requirements and further investigations along Pennant Hills Road and North Rocks Road, we have decided to proceed with the proposed intersection improvements to Pennant Hills Road and North Rocks Road in Carlingford, with a few changes.

Changes to the proposal include:

- installing a number of retaining walls along Pennant Hills Road and North Rocks Road where there is a difference in the ground levels – if private properties require a retaining wall, we'll contact property owners to discuss this matter
- permanently removing five unmarked car parking spaces on the northern side of North Rocks Road between Roselea Way and the pedestrian crossing near the St Gerard Majella's Catholic Church
- installing wide footpaths, where possible, that can be upgraded to shared paths in the future by the City of Parramatta council on:
 - the northern side of North Rocks Road between Roselea Way and Pennant Hills Road
 - the eastern side of Pennant Hills Road north between North Rocks Road and the mid-block crossing near Murray Farm Road
 - the southern side of North Rocks Road along a quarter of the block between Pennant Hills Road and Jenkins Road – the wider footpath will run for approximately 130 metres from the intersection
- relocating two bus stops on Pennant Hills Road, bus stop ID 211831 18 metres south and bus stop ID 2118174 150 metres south to be nearer to the Roselea Community Centre.

5. Next steps


Transport will finalise the Review of Environmental Factors (REF) for the intersection improvements on Pennant Hills Road and North Rocks Road, Carlingford in June 2021.

We will keep the community updated as the project progresses, with work anticipated to begin in late-2022.


We will continue to keep the community updated as this project progresses.

6. Appendices

Appendix A – ‘Have your say’ letter November 2020



Transport for NSW
Intersection improvements at Pennant Hills Road and North Rocks Road, Carlingford
Have your say | November 2020



Traffic queues on Pennant Hills Road at North Rocks Road, Carlingford

Each day nearly 60,000 vehicles travel through the Pennant Hills Road and North Rocks Road intersection. A high traffic area motorists experience congestion, slow travel times and delays when travelling through the intersection of Pennant Hills Roads and North Rocks Road.


We are inviting the community to provide feedback on our proposal to improve the intersection on Pennant Hills Road and North Rocks Road, Carlingford. You can provide your comments until our consultation closes on **Friday 18 December**.

Our proposal will increase the capacity of the Pennant Hills Road and North Rocks Road intersection by widening the road, reducing queue lengths and improving safety for all road users.

The NSW Government is funding this proposal as part of its \$450 million Urban Roads Congestion Program, which aims to reduce congestion and improve travel times on Sydney's busiest corridors.

Did you know?

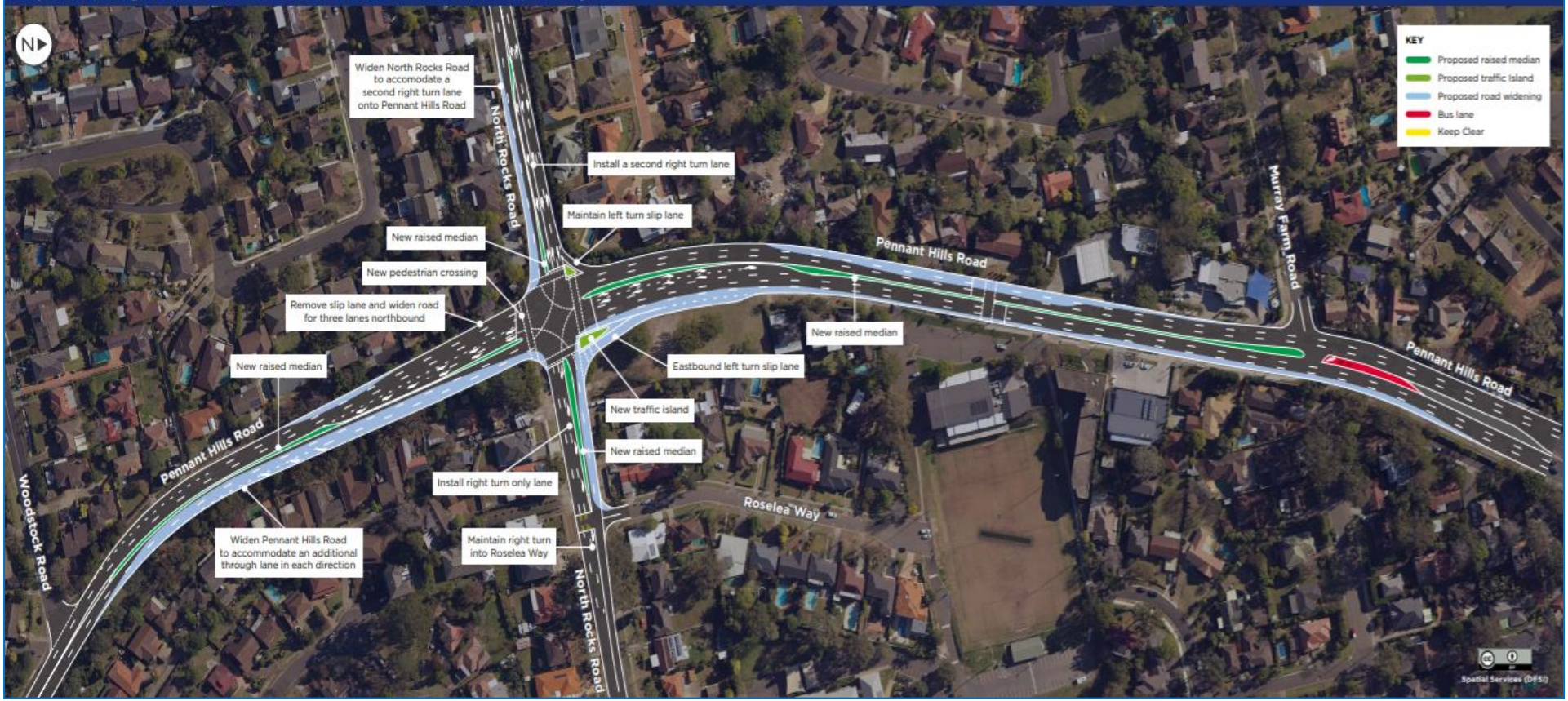
Congestion costs Sydney around \$6 billion each year. By 2031, Sydney is forecast to be home to an extra 1.3 million people. This will put extra pressure on the existing road network due to increased demand from motorists, public transport and freight.



More time with family and friends

November 2020

Proposed changes on Pennant Hills Road and North Rocks Road, Carlingford



Proposed improvements

- Widening Pennant Hills Road between Woodstock Road and Murray Farm Road, adding an extra through lane in each direction.
- Widening North Rocks Road to install a second right turn lane from North Rocks Road onto Pennant Hills Road heading south.
- Removing the left turn slip lane from Pennant Hills Road onto North Rocks Road west, to provide three northbound lanes.
- Installing a new left turn slip lane from Pennant Hills Road to North Rocks Road heading east.
- Adding an additional right turn lane for road users travelling eastbound on North Rocks Road and turning right into Pennant Hills Road.
- Installing a raised median in the centre of Pennant Hills Road between Woodstock Road and Murray Farm Road.
- Installing a new pedestrian crossing on the southern side of Pennant Hills Road and North Rocks intersection.
- Resurfacing the road and changing signage.
- Adjusting utilities, street lighting and drainage.

Project benefits

- Ease congestion and improve travel times for all road users.
- Improve traffic flow through the intersection.
- Improve road user and pedestrian safety.

We have listened

In December 2017 we spoke to the community about some proposed improvements at this intersection.

In response to your feedback this new proposal includes more improvements than what we proposed. In addition to widening Pennant Hills Road, we are now proposing to widen North Rocks Road to include a second right turn lane onto Pennant Hills Road southbound.

In response to your feedback the proposed median in the centre of Pennant Hills Road was to be painted to maintain property access. Road safety standards do not support a painted median so we are again proposing to install a raised concrete median along Pennant Hills Road between Woodstock Road and Murray Farm Road.

Night works schedule

Depending on the feedback received, we are proposing to start work improving the intersection at Pennant Hills Road and North Rocks Road, Carlingford, in either late 2021 or early 2022. The work will take up to two years to complete.

We will plan the work schedule so the improvements can be completed as quickly as possible, limiting the impact on road users and the local community.

We will work during the day when possible. Our day work hours will be between **7am** and **6pm** from **Monday to Friday** and between **8am** to **1pm** on **Saturday**.

However, most of our work will need to be carried out at night to lessen traffic disruption and reduce safety risks to the workers. When necessary, we may work up to five nights a week, weather permitting and excluding public holidays. Our night time work will be from **Sunday** to **Thursday** between **8pm** and **5am** the next day.

We will inform the community of upcoming night work before starting. We will consult with the community to manage the impact of our night work, including implementing measures to reduce the impact of noisier tasks and completing these tasks by midnight.

More transport projects

There are more other Transport projects happening in your local area.

North Connex

NorthConnex is a nine kilometre twin tunnel linking the M1 Pacific Motorway at Wahroonga and the Hills M2 Motorway at West Pennant Hills.

NorthConnex will deliver faster, safer, more reliable and more efficient journeys for road users. It will remove up to 5,000 trucks a day from Pennant Hills Road, easing congestion and improving air quality for local communities, boosting safety for pedestrians and cyclists, and reducing traffic noise.

Parramatta Light Rail

The \$2.4 billion Parramatta Light Rail is one of the NSW Government's latest major infrastructure projects being delivered to serve a growing Sydney. Light Rail will create new communities, connect great places and help both locals and visitors move around and explore what the region has to offer.

The Parramatta Light Rail will connect Westmead to Carlingford via the Parramatta CBD and Camellia, and offer high-frequency 'turn-up-and-go' light rail services seven days a week, departing approximately every 7.5 minutes in peak periods.

The former T6 Carlingford Line is now closed and is being converted to two-way light rail, which will provide more frequent services and better connections to CBDs including Parramatta and Sydney.

The new light rail network is expected to open in 2023.

What next

After the consultation closes, we will carefully consider all feedback received before making a decision on the proposal. We will share with the community what we have learnt from this consultation and will keep the community informed as the proposal progresses.

Pinch Point


What is a pinch point? A pinch point is a traffic congestion point, either at an intersection or on a short length of road, where a traffic bottleneck exists. They cause traffic build up and travel delays at these spots and on the wider road network.

To see more on these completed upgrades and to learn of upcoming pinch points in Sydney, visit nswroads.work/pinchpoints


Have your say


We invite your feedback on the proposal and our night work schedule by Friday, 18 December. You can provide your comments by contacting our Project Team.

To ensure we protect public health and safety during the Coronavirus outbreak, we need to change the way we engage with the community. Please be assured we will continue to respond to any questions or concerns you may have about our work.

 **1800 572 004 (during business hours)**

 **pinchpoint@rms.nsw.gov.au**

 **nswroads.works/pinchpoints**

 **Pinch Point, Transport for NSW,
PO Box 973, Parramatta NSW 2124**



Translating and Interpreting Service

If you need an interpreter, please call the Translating and Interpreting Service (TIS National) on **131 450** and ask them to telephone Transport for NSW on 1800 572 004.

Cantonese

若你需要口譯員，請致電**131 450**，聯絡翻譯口譯服務署 (TIS National)，要求他們致電**1800 572 004**，聯絡Transport for NSW。

Mandarin

如果你需要口譯員，請致電**131 450**，联系翻译口译服务署 (TIS National)，要求他们致电**1800 572 004**，联系Transport for NSW。

Korean

통역사가 필요하시면 통번역서비스 (TIS National)에 **131 450** 으로 전화하여 Transport for NSW에 **1800 572 004**번으로 전화하도록 요청하십시오.

Hindi

यदि आपको दुभाषि की आवश्यकता है तो अनुवाद एवं दुभाषिया सेवा (TIS National) को **131 450** पर फोन करें और उन्हें ट्रांसपोर्ट फॉर NSW (Transport for NSW) से **1800 572 004** पर फोन करने को कहें।

Arabic

إذا كنت بحاجة إلى مترجم شفهي، يرجى الاتصال بخدمة الترجمة الخطية والشفهية (TIS National) على الرقم **131 450** واطلبوا منهم الاتصال هاتفياً بـ **1800 572 004** على الرقم Transport for NSW.

Tamil

உங்களுக்கு ஒரு மொழிபெயர்த்துரைப்பணி தேவைப்பட்டால், தலையெடுத்து மொழிபெயர்த்தல் மற்றும் மொழிபெயர்த்துரைப்பணி (TIS National) **131 450** என்ற எண்ணில் அழைத்து, Transport for NSW -ஐ **1800 572 004** என்ற தொலைபேசி எண்ணில் அழைக்குமாறு அவர்களைத் தொடரவும்.

Gujarati

જો તમારે ક્રવાચિયાની જરૂર છે તો, અનુવાદન અને ક્રવાચિયા સેવા (TIS National)ને **131 450** પર ફોન કરો અને તેમને ટ્રાન્સપોર્ટ ફોર NSW (Transport for NSW) ને **1800 572 004** પર ફોન કરવા કહો.

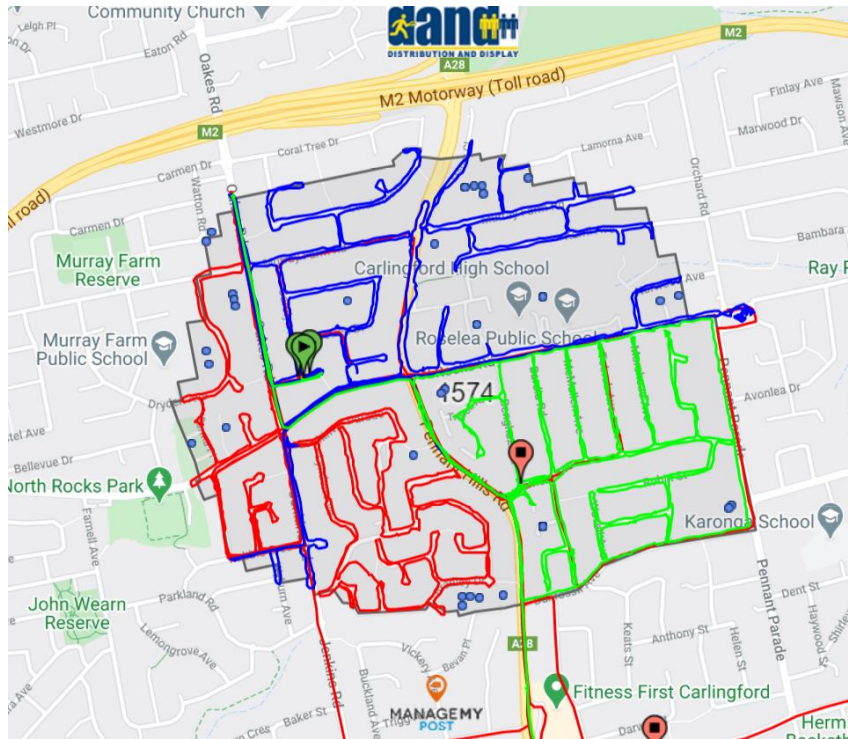


November 2020
TINSW 20.397

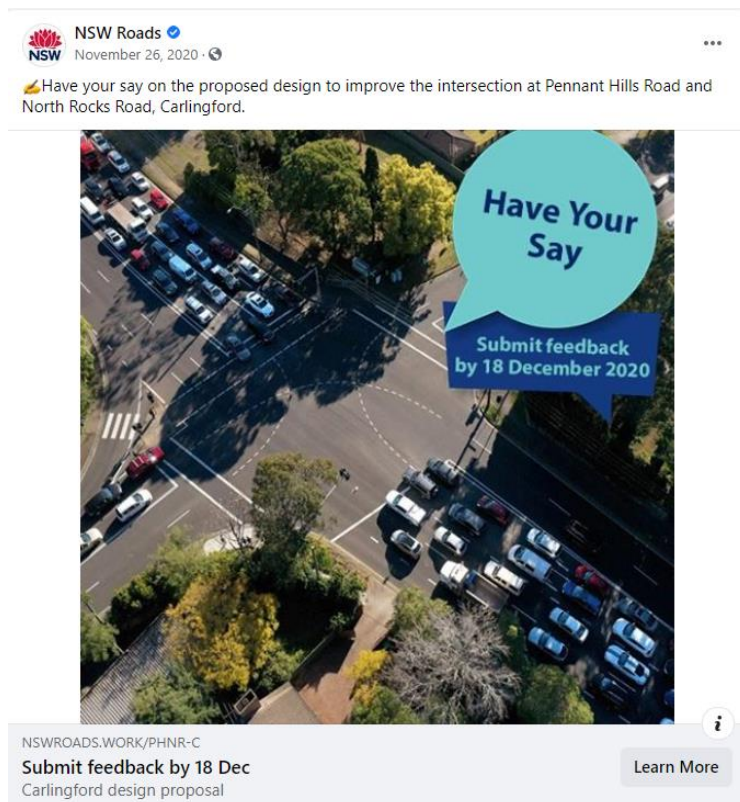
Privacy Transport for NSW ("TINSW") is subject to the Privacy and Personal Information Protection Act 1998 ("PPPI Act") which requires that we comply with the Information Privacy Principles set out in the PPPI Act. All information in correspondence is collected for the sole purpose of assisting in the delivery this project. The information received, including names and addresses of respondents, may be published in subsequent documents unless a clear indication is given in the correspondence that all or part of that information is not to be published. Otherwise TINSW will only disclose your personal information, without your consent, if authorised by the law. Your personal information will be held by TINSW at 27 Argyle Street, Parramatta. You have the right to access and correct the information if you believe that it is incorrect.

transport.nsw.gov.au

Appendix B – Distribution map November 2020



Appendix C – Facebook post



There's still time to submit your feedback on the proposal to improve the intersection at Pennant Hills Road and North Rocks Road, Carlingford.



NSWROADS.WORK/PHNR-C

Submit feedback by 18 Dec
Carlingford design proposal

[LEARN MORE](#)

 Like

 Comment

 Share

Appendix D



NSW Roads ✓

November 27, 2020 · 🌐



Join us on 4 December to hear from the project team about the intersection improvements at Pennant Hills Rd & North Rocks Rd.



FRI, DEC 4, 2020

Pennant Hills Rd & North Rocks Rd Intersection

✓ Going ▾

Appendix E



FRIDAY, DECEMBER 4, 2020 AT 4 PM UTC+11 – 4:30 PM UTC+11

Pennant Hills Rd & North Rocks Rd Intersection

Facebook Live

[Watch Video](#)



The Event Has Ended

You can watch the recorded video from the event.